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Continuing Professional Development for Physical Education Teachers in Greece: Towards Situated, Sustained and Progressive Learning?

By

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Abstract

The aim of this study was to build upon recent PE-CPD (Physical Education Continuing Professional Development) research by exploring the nature and quality of PE-CPD provision in Greece; the spectrum of teachers' professional learning experiences in both formal and informal learning contexts; and examining the features of effective CPD provision. The study employed qualitative research methods. Data were collected in three overlapping phases in one borough in Athens from repeat interviews with nine individual PE teacher case studies, interviews with six key CPD stakeholders with a range of responsibilities; and an open-ended profile questionnaire distributed to other PE teachers in the same locality. The data were analysed using elements of a constructivist approach to grounded theory (Charmaz, 2006). The research findings reinforced evidence from the existing CPD literature in that the teachers' official PE-CPD experiences were viewed as brief, unsystematic, haphazard, transmission-oriented, irrelevant and lacking in challenge. The nature of this CPD provision contrasted sharply with the ways in which the teachers viewed effective learning; i.e. an active construction of meanings in multiple contexts. Furthermore, for some teachers, their unique blend of personal, contextual and professional factors inhibited self-initiated (and self-funded) PE-CPD participation and, in the absence of enabling CPD structures, they were unable to engage in sustained and meaningful learning. In addition, poor PE facilities and schools that offered no opportunities for teacher collaboration had a negative impact on teachers' professional learning. It is argued in this thesis that PE teachers' career-long learning progression can be inhibited if teachers are offered CPD that is predominantly passive in its learning orientation. Hence, a key design feature of any future PE-CPD in Greece should be its focus on building teachers' learning capacity (Claxton, 2007). Moreover, PE-CPD provision should draw upon the available evidence from wider research on teachers' professional learning, but ensure it is contextualised to meet the specific needs of Greek teachers and schools at this stage of development in Greece. The value of situated, collaborative learning was identified by the teachers in this study, but the structures were rarely in place to allow this type of learning to flourish.

Conference Presentations

Armour, K.M., Makopoulou, K. & Chambers, F. (2008). 'Progression in PE Teachers' Career-Long Professional Learning: Practical and Conceptual Concerns'. Paper presented at the Annual Meeting of the American Educational Research Association, New York, USA, March 2008.

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Table of Contents

Abstract.....	1
Conference Presentations	2
Acknowledgements.....	4
Table of Contents.....	5
List of Tables.....	8
Chapter 1: Introduction.....	9
Chapter 2: Literature Review.....	16
2.1 Continuing Professional Development for Teachers	16
2.1.1 CPD Definition	16
2.1.2 CPD Purpose(s).....	19
2.1.3 Literature on Effective CPD	21
2.1.4 CPD vision: ‘Building a Learning Profession’ (Ingvarson, 2003)	30
2.1.5 The ‘Inadequacy’ of the Current CPD System	31
2.1.6 PE-CPD Literature	33
2.2 The Professional Development of (PE) Teachers in Greece	39
2.2.1 Education and CPD Policy Initiatives in Greece	40
2.2.2 Initial Teacher Training and Teaching PE.....	42
2.2.3 Getting Into Teaching and Career Ladder	44
2.2.4 A Brief History of CPD Policy and Practice in Greece.....	46
2.2.5 The Current Situation...From the Public’s Perspective.....	51
2.3 Theories of Teacher Learning	52
2.3.1 A Brief Overview of Key Learning Theories	52
2.3.2 Behaviourism and Cognitivism.....	53
2.3.3 Constructivism	56
2.3.4 Situated or Sociocultural Theories.....	61
2.3.5 Theories of Learning in Relation to the Present Study	66
Chapter 3: Methodology.....	69
3.1 Introduction.....	69
3.2 Research Paradigms.....	71
3.2.1 Positivism.....	71
3.2.2 Post-Positivism	72
3.2.3 Critical Theory	73
3.2.4 Social Constructivism.....	73
3.2.5 Fit for Purpose.....	74
3.3 Qualitative Research.....	75
3.3.1 Critique of Quantitative Research.....	75
3.3.2 Interpretive Approach	76
3.4 Research Design	77
3.5 Phase One: Case Study Research.....	79
3.5.1 What is a Case Study?.....	79
3.5.2 Types of Case Studies.....	80
3.5.3 Case Selection and Case Study Visits.....	81
3.5.4 Generalisability: Context-Dependent Information	85
3.5.5 Validity/ Subjectivity	88
3.6 Interviewing: The Principal Method of Data Collection.....	88
3.6.1 Capturing Teachers’ Perspectives.....	89

3.6.2 Interview Protocols	90
3.6.3 The Interview Process.....	91
3.6.4 The Interview Protocols: A Reflective Account.....	93
3.7. Phase Two: Open-Ended Profile Questionnaires	94
3.8 Phase Three: Selection of CPD Stakeholders.....	96
3.9 Data Analysis	97
3.9.1 Grounded Theory: The Original (or ‘Traditional’) Approach	98
3.9.2 A Constructivist Approach to Grounded Theory.....	99
3.9.3 An Adaptation of Grounded Theory	100
3.10 Quality in Qualitative Research.....	104
3.10.1 Criteria in Qualitative Research?	105
3.10.2 Reflexivity as a Methodological Tool.....	108
3.10.3 A Reflective Account.....	110
3.11 Some Ethical Issues	114
3.12 What is Next: The Analysis Chapters	115
Chapter 4: Findings.....	117
4.1 Case study teachers	117
4.1.1 Philip.....	118
4.1.2 Mary	124
4.1.3 Kathy.....	132
4.1.4 Clive.....	137
4.1.5 Elisabeth.....	145
4.1.6 Jon.....	151
4.1.7 Peter	157
4.1.8 Margaret.....	162
4.1.9 Hannah	168
4.2 Open-Ended Profile Questionnaire.....	175
4.2.1 What is the Nature and Quality of Existing PE-CPD Provision?	176
4.2.2 What Are the Features of Effective PE-CPD Provision?.....	179
4.2.3 How do PE Teachers Perceive they Learn about Teaching?	180
4.3 CPD Stakeholders	181
4.3.1 Andrew.....	182
4.3.2 Matthew and Christine.....	185
4.3.3 Ruth.....	190
4.3.4 Patrick	193
4.3.5 Mark.....	196
4.4 Conclusion.....	201
Chapter 5: Discussion of Findings.....	202
5.1 How Do Greek PE Teachers Perceive They Learn About Teaching? .202	
5.1.1 Learning as Participation In-Context and Reflective Practice	203
5.1.2 Learning as ‘Construction’	206
5.1.3 Learning is Social	209
5.1.4 ‘External’ Barriers to Professional Learning	213
5.1.5 The Personal Dimension in Professional Learning.....	216
5.2 What Do Greek PE Teachers and CPD Stakeholders Believe About the Nature and Quality of Existing PE-CPD Provision?.....	220
5.2.1 Limited and haphazard PE-CPD provision.....	220
5.2.2 CPD Content: Irrelevant and Skills-Orientated (Technocratic).....	224
5.2.3 Traditional, ‘Transmission-Oriented’ CPD Model.....	227

5.3 What Are the Features of Effective PE-CPD According to These PE Teachers and CPD Stakeholders?	231
5.3.1 Needs Analysis: Target PE-CPD Appropriately	232
5.3.2 Flexibility in Delivery and ‘Personalised’ PE-CPD	235
5.3.3 ‘Practical’ PE-CPD Experiences.....	236
5.3.4 Opportunities for Active Learning.....	238
5.3.5 Opportunities to Learn from Each Other	239
5.3.6 Sustained Engagement in PE-CPD and Follow-up Support.....	241
Chapter 6: Conclusion.....	244
6.1 An Overview of the Research Process	245
6.2 Discussion of Key Findings.....	247
6.3 Recommendations for Future PE-CPD Provision in Greece.....	251
6.4 Limitations.....	255
6.5 Final Thoughts	258
References	259
List of Appendices.....	293
Appendix A – The Induction Programme for Teachers in Greece	294
Appendix B – Interview Agendas for case study PE teachers.....	296
Appendix C – Open Ended Profile Questionnaire	302
Appendix D – Letter to research participants	306
Appendix E – A Sample of Conference Presentations	308

List of Tables

Table 1: CPD Strategies (Loucks-Horsley et al., 2003).....26

Table 2: Coding and Memo Writing..... 102

Table 3: Duration of PE-CPD participation..... 178

Chapter 1: Introduction

There is evidence to suggest that governments around the world are placing an increasing emphasis on the role that high quality education can play in economic and social development (OECD, 2005). Despite the fact that the notion of 'educational quality' can take multiple meanings in diverse contexts (Leu, 2005), there seems to be widespread recognition that improving the quality of teachers and teaching is, or should be, a fundamental component of educational reform (Reynolds & Teddlie, 2000; Schwarz, 2000). Unsurprisingly perhaps, high quality teaching is also believed to lead to improved student learning outcomes and achievement (Darling-Hammond, 2000; 1998; European Commission - EC, 1997; Leu, 2005; Leu & Price-Rom, 2006; Rowe, 2003):

What goes on in the classroom and the impact of the teacher and teaching has been identified in numerous studies as the crucial variable for improving learning outcomes. The way teachers teach is of critical concern in any reform designed to improve quality (UNESCO, 2004, cited in Leu, 2005, p. 7).

Similarly, Cochran-Smith (2005) pointed out that 'teachers' work makes a difference in children's lives, and we should pay more attention to policies and practices assuring that all children have good teachers' (p. 6). It has also been acknowledged that 'good' or 'effective' teachers are those who are not only prepared adequately through initial teacher education programmes but are also continuously supported to do their jobs to maximum potential through meaningful and effective Continuing Professional Development (CPD):

Quality teaching depends on the people in the teaching profession, their initial teacher education and their continuing professional development and their work practices and working environment (OECD, 2006, cited in O'Sullivan, 2006a, p. 46).

Craft (1996, p. 6) defined CPD broadly as: 'all types of professional learning undertaken by teachers beyond the initial point of training' and researchers have consistently made the case for more and better CPD funding as well as

more systematic CPD research. This argument emerged over the last decade or so with the realisation that whereas initial teacher education has received significant attention from policy makers and researchers over the years, there has been a relative neglect of CPD (Day, 1999; 1997). As a consequence, it has been argued that researchers, academics and policy-makers know relatively little about how and what teachers learn over their careers (Wilson & Berne, 1999). Moreover this is a concern that transcends individual subject areas and national boundaries. For example, in the USA, science CPD was seen as an area of research with limited scope, breadth or depth (Fishman et al., 2003); and it was argued that 'although practically every new programme or innovation has associated professional development opportunities, there has not been much systematic study of these opportunities' (Fishman et al., 2000, p. 2).

It could be argued that, over this past decade, the CPD and PE-CPD landscape has changed dramatically. Numerous educational policy documents in many Western countries (i.e. No Child Left Behind in the US, 2001; Teaching at Risk: A Call for Action – The Teaching Commission, 2004) recognise the need to invest in human 'capital' and make the case for increased funding for targeted professional development. This is particularly reflected in the USA, where many state-funded, sustained CPD initiatives have emerged (e.g. The Writing Project, Lieberman & Wood, 2002) and Professional Development Schools are being established (Darling-Hammond, 2005; Grossman, 2005). A similar trend has been seen in Australia (i.e. The Early Numeracy Research Project; Clarke & Clarke, 2005).

In the European context, the European 'Memorandum on Lifelong Learning' (EC, 2000) encouraged member states to ensure that teachers and other professionals have adequate and sufficient support to continually enhance their knowledge, skills, and understanding. In England, a national strategy for teacher professional development has been developed (General Teaching Council - GTC, 2000) and further expanded in recent years (GTC, 2007) drawing attention to developing the school workforce as part of an integrated approach to improving pupils' lives (August et al., 2006; Training and

Development Agency for Schools - TDA, 2007). Scotland is another example of a country that has seen a growing focus on teachers' CPD, resulting in the development of a national CPD framework linked with a series of professional standards for teachers (Purdon, 2004; 2003). Calls for more CPD for teachers have also been made recently in the country at the heart of this research, Greece, in the context of the introduction of the new Cross-Thematic curriculum developed to meet emerging economic and societal demands. In that framework, it has been acknowledged that teachers need sufficient support to change the ways they understand and deliver their subject-matter:

New practices should be accompanied by curriculum change, changes in the organization of school time and the development of new teaching materials. Teachers' support and training are also important for the success and effectiveness of the whole endeavour (Αλαχιώτης, 2005, p. 6).

In relation to the international PE-CPD context, in October 2002, the English Government announced funding of £450 million to support the national PESSCL strategy (Physical Education, School Sport, and Club Links Strategy), with the aim of transforming the quality of Physical Education (PE) provision in all schools across the country. A part of this investment funded the National PE and School Sport Professional Development programme for teachers and others adults in schools (Armour & Makopoulou, 2008; 2007; 2006a). Even more uniquely in physical education, funding was earmarked for an independent evaluation to run alongside the national programme (Loughborough University).

Increases in funding for teachers' CPD have also led to increased accountability. It was soon realised that not all CPD activities are effective and policy makers searched for 'robust' research evidence of 'what works', where, when, for whom, and why. As a consequence, it has been argued that a considerable body of CPD research is now available (Borko, 2004; Day & Sachs, 2004). However, it has also been acknowledged that, despite this progress, the available empirical findings are far from conclusive (Garet et al., 2001); and that there are still fundamental questions to be addressed in relation to teachers' CPD. Furthermore, it has been pointed out that existing

theorizing on effective CPD is very rarely grounded in research evidence that explicitly and rigorously explores the links between teacher professional development and improved student learning outcomes (Cohen & Hill, 1998; Garet et al., 2001; Guskey & Sparks, 2002; Meiers & Ingvarson, 2005). Elmore (2002) stressed that evidence of the connection between current CPD provision and the knowledge and skill of educators is tenuous at best; and robust research supporting the relationship between CPD and student learning is, practically, nonexistent. Olson et al. (2002, cited in Meiers & Ingvarson, 2005, p. 9) made a similar point:

There is no national data that examines professional development over time, or links professional development participation to both changes in teaching practice over time and student achievement.

In this context, Borko (2004) raised the point that CPD is a central issue not only for policy makers but also for researchers. It has been suggested that what is required is multiple-method, quasi-experimental (Borko, 2004; Cohen et al., 2003; Hargreaves, 1999), longitudinal (Garet et al., 2001) studies in CPD in order to explore some of these complex links. However, it is also clear that all these recommendations for future CPD research are based on the assumption that specific teacher CPD programmes are already in place ready to be explored or evaluated (Borko, 2004); however, this was not the case in the Greek PE-CPD context.

At the time the present study was designed, despite the fact that professional development was assuming greater significance at a global level (Chitpin & Evers, 2005), there were no systematic PE-CPD structures in place to support PE teachers in Greece. Furthermore, research on CPD was at an embryonic stage of development; and, similar to the points made elsewhere, there was little understanding of how PE teachers view their CPD experiences (Armour, 2006; O'Sullivan, 2006b). Indeed, research on PE-CPD was practically nonexistent. Yet, O'Sullivan (2006a), drawing on an OECD (2005) policy document, has recently argued that:

To provide quality professional development for teachers, one must understand the aspirations, needs and interests of

teachers, as they are key factors in the complex world of teaching and learning (p. 266).

Within this broad international context, therefore, it was felt that research on both teachers' and key CPD stakeholders' views and experiences of existing CPD structures, and on the complex processes of teacher learning, could fill an important research gap in the Greek literature and contribute to the wider international literature.

The present study set out to explore three research questions:

- i. How do Greek PE teachers perceive they learn about teaching?
- ii. What do Greek PE teachers and CPD stakeholders believe about the nature and quality of existing PE-CPD provision?
- iii. What are the features of effective CPD and PE-CPD according to PE teachers and CPD stakeholders?

The *first research question* sought to explore the complex processes of teacher learning in multiple contexts. The question of how teachers learn is important for two main reasons: first, in recent years, there has been a significant shift in understanding how human learning occurs- from rote memorisation to active learning, when learners think about and try out new ideas. Constructivist and situated perspectives on learning (discussed in sections 2.3.3 and 2.3.4) dismantle existing assumptions about teacher learning, provide a valuable means through which researchers can engage in broader debate on the nature of learning, and mark an important new direction for research. The second reason for conducting research on teacher learning lies within the recently emerged lifelong learning agenda in Europe (EC, 2001). It has been argued that researching 'how teachers learn' is important because answers to this question can provide valuable insights into how to build and improve structured professional development experiences for teachers (Beijaard et al., 2007).

The *second research question* sought to 'map the terrain' (Borko, 2004) of existing PE-CPD provision as experienced by the research participants. It is

argued in this thesis that this question was foundational to the research because any attempt to inform or reformulate CPD policy and practice must be based on a thorough understanding of the structures and the assumptions that underpin the existing system. Finally, the *third research question* focused on the research participants' views about effective CPD and PE-CPD with the intention to provide an 'insider perspective' that can make a significant contribution to the body of literature on designing, implementing and evaluating CPD experiences for teachers and PE teachers. In order to address these research questions, the thesis is organised as follows.

Chapter 2 has three main purposes: first, to provide an overview of the relevant literature on CPD and PE-CPD; second, to describe contextual information about the Greek educational system (and CPD structures) in which the present study was located; and third, to discuss a range of theoretical approaches to the complex processes of teacher learning in order to ground the research participants' views and experiences.

Chapter 3 describes the methodological approach adopted in this research and the specific methods used to answer the research questions. Qualitative research within an interpretative, social constructivist framework was employed. In particular, in-depth case studies were conducted with 9 PE teachers from primary and secondary schools in the same borough of Athens; an open-ended profile questionnaire was designed and distributed to 70 PE teachers in the same area; and interviews with 6 key CPD stakeholders in Greece (i.e. school advisor, university teachers, members of the pedagogical institute) were conducted in order to capture both PE teachers' and CPD providers' views and experiences on the issues under investigation. Data were analysed using elements of a constructivist approach to grounded theory (Charmaz, 2006) and this approach is described with illustrative examples.

Chapter 4 reports the data in three ways. Firstly, 9 individual teacher case reports are presented to ensure that these data are contextualised and can be understood as holistic teacher case studies. Secondly, summaries of the responses to the open-ended profile questionnaire are provided to

contextualise the teacher case reports within the broader PE teacher community in a borough of Athens. Finally, the data from the CPD stakeholder interviews are reported to locate the earlier findings within a broader PE and education policy context.

In chapter 5, the most important 'themes' from the research in response to the three research questions are discussed; and the final chapter concludes the study, recognises its limitations and offers implications and recommendations for future PE-CPD provision in the Greek context. Overall, this thesis attempts to make two contributions to the literature. The first is to expand understandings of teachers' and CPD stakeholders' perspectives on teacher learning in specific PE-CPD structures; and second, to add new knowledge about how CPD structures can be improved in Greece and in national contexts similar to Greece at the current time.

Chapter 2: Literature Review

This chapter provides an overview of the theoretical context for the present study. In particular, this chapter serves three main purposes: first, to provide an overview of the relevant literature on CPD and PE-CPD; second, to describe contextual information about the Greek educational system (and CPD structures) in which the present study was located; and third, to discuss a range of theoretical approaches to the complex processes of teacher learning in order to ground the research participants' views and experiences. Each section is presented in turn.

2.1 Continuing Professional Development for Teachers

This section provides an overview of international professional development research in education and physical education. There are two central themes running throughout this section. The first is that views on the nature, quality, and purpose of CPD provision for teachers have changed significantly over the last decade and the intention of this chapter is to provide an overview of these changing perspectives. The second theme apparent in this literature review is the confusion that characterises the vast and complex CPD literature and the feeling that this is a dynamic field of study that is constantly 'in motion'; growing and changing. This makes 'finishing' a literature review on CPD impossible so what is presented here is a summary to-date. The first task of this section is to critically analyse the notions of CPD and effective CPD and to provide a clear picture of how these concepts have been used in the present study.

2.1.1 CPD Definition

The importance of CPD for teachers has been recognised in recent years and it is now widely understood that CPD is a key factor in school improvement (Darling-Hammond, 2000; Darling-Hammond & Sykes, 2003; 1999; King, 2001; King & Newman, 2001; Newman et al., 2000; Reynolds and Teddlie,

2000). 'CPD' is a relatively recent term. Various other concepts (e.g. in-service, teacher training, staff development) have been employed in the international literature at different points in time; but also the very notion of CPD has varied. This definitional and conceptual plurality suggests that the boundaries of the concept of CPD are blurred (Bolam & McMahon, 2004; Evans, 2002). The view adopted in this thesis is that researchers, academics and policy makers have formulated definitions of CPD (or other related concepts) that reflect the particular philosophical and pragmatic orientation (role, focus and purpose) of CPD systems at particular points in time and in specific contexts. It has also been argued that CPD definitions also reflect the prevailing historical, social, and economic circumstances that influence educational systems and shifting understandings of teacher professionalism (Day, 2000; Day & Leitch, 2007; Hargreaves, 2000; 1996; Sachs, 2000).

The emergence of the concept of CPD in recent years signalled a shift away from the rather narrow conceptualisation of teacher learning opportunities as planned, formal interventions, conveyed by previous concepts (Day, 1999a; OFSTED, 2006; 2002 Villegas-Reimers, 2003). It has been increasingly recognised that both 'formal' and 'non-formal' ways of knowing are important and a wide range of opportunities across different contexts needs to be available to teachers. In the same line of thought, Craft (2000) defined CPD as 'all types of professional learning undertaken by teachers beyond the initial point of training' (p. 6). Arguably, Day (1999a) developed one of the most detailed and all-embracing definitions of CPD; a definition that has been widely cited:

Professional Development consists of all *natural* learning experiences and those conscious and *planned* activities which are *intended* to be of direct or indirect benefit to the *individual, group or school* and which contribute, through these, to the quality of education in the classroom. It is the process by which, *alone and with others*, teachers review, renew and extend their commitment as *change agents* to the moral purposes of teaching; and by which they acquire and develop critically the *knowledge, skills, and emotional* intelligence essential to good professional thinking, planning and practice with children, young people and colleagues through each phase of their teaching lives (p. 4, *italics added*).

Day's (1999a) definition seems to reflect (or prompt) issues and concerns in educational reform agendas in Europe (i.e. European Commission, 2005; 2001; 2000; 1995; Nijhof, 2006). Fraser and colleagues (2007) located this shift of understanding about CPD within the wider policy agenda of lifelong learning in Europe. A focus on lifelong learning resonates with current interests in challenging notions of learning as solely associated with specialist educational institutions (Young, 1998a; 1998b) acknowledging that teacher learning takes place over time rather than in isolated moments in time (Cochran-Smith & Lytle, 2001). Indeed, it has been argued that lifelong learning is about learning throughout one's life and across different contexts and situations; in school, at work, at home, in the community (Green, 2002); and it encompasses the whole spectrum of formal, nonformal, and informal learning (European Commission, 2001). Drawing on relevant European policy documents (European Commission, 2001; 2000; 1995), Colley et al. (2003) defined these concepts as follows:

- *Formal learning activities* are structured activities with specific learning outcomes, typically provided by an education institution, and which might lead to certification or qualification.
- *Non-formal learning activities* include those intentional learning activities undertaken by teachers but which are not provided by an educational institution and do not lead to certification or qualification.
- *Informal learning activities* include professional learning resulting from daily-life activities related to work, family or leisure and are, in most cases, non-intentional by the learner.

Existing CPD definitions by leading researchers in the field (i.e. Day, 1999a; Guskey, 2000) tend to emphasise the purposeful and intentional element in CPD excluding, however, the 'messier', less explored and not yet clearly understood element of informal or unintentional learning. In addition to Day's (1999a) definition presented above, where the emphasis was placed upon planned and intentional CPD activities, Guskey (2000) explicitly argued:

Professional development is not, as some perceived it to be, a set of random, unrelated activities that have no clear direction or intent. True professional development is a deliberate process, guided by a clear vision of purposes and planned goals (Guskey, 2000, p. 17).

Therefore, it could be argued that although the concept of CPD has been expanded in recent years to incorporate both formal and non-formal activities, it retains a strong element of intentionality in practice.

In the present study, for purposes of convenience, CPD has replaced the Greek concept 'further education' ('επιμόρφωση'), which, traditionally, carried specific – arguably narrow - connotations about the nature of teacher learning. Drawing upon relevant policy documents (Εφημερίς της Κυβερνήσεως (2002α), 'further education' refers to 'formal' and structured learning opportunities available to teachers, which take place largely out of the school context, and that aim to 'transmit' bodies of 'codified' knowledge to teachers. During the fieldwork, no specific definition of the notion of 'επιμόρφωση' or CPD was provided with the aim to explore the ways in which research participants understood and experienced this in the Greek context.

2.1.2 CPD Purpose(s)

As already noted, there is a widespread belief in the international literature that CPD can serve different purposes at different points in time (Day & Leitch, 2007; Hargreaves, 2000). More than two decades ago, Joyce (1980) argued that professional development must fulfil three needs: the social need for an efficient education system capable of adapting to evolving social needs; the need to find ways of helping teachers to improve the wider personal, social and academic potential of young people; and the need to support teachers to live a satisfying and stimulating life. CPD, in other words, should be aiming to both fulfil system-wide goals and address individual needs and aspirations, with pupil learning and achievement lying at the heart of every endeavour. The first two purposes can be identified clearly in contemporary policy and research on professional development (i.e. Meiers & Ingvarson, 2005; OFSTED, 2006; TDA, 2007). As yet, however, these two purposes do

not appear to be in harmony. There are questions about the specific focus/direction of CPD activities: for example, should CPD aim to improve, stimulate, cultivate individual agency for ongoing learning and improvement or should CPD be targeting the system, the structures and the overall infrastructure within which teachers work?

The former argument is based on the assumption that providing active, meaningful and effective CPD experiences for individual teachers would result in a pool of knowledgeable, enthusiastic, and independent teacher-learners who could drive change and innovation within and beyond the boundaries of their schools (Armour & Makopoulou, 2008; Day et al., 2006; Deglau & O'Sullivan, 2006; Ingvarson, 2005; Peterson et al., 1996). The power of individual agency is reflected in both Peterson's et al. (1996) and James' et al. (2007) points:

Changing practice is primarily a problem of teacher learning, not a problem of organisation.... School structures can provide opportunities for the learning of new teaching practices and new strategies for student learning, but structures, by themselves do not cause learning to occur (p. 149).

Those teachers (about 20 percent) who had most success...were those who demonstrated a capacity for strategic and reflective thinking and took responsibility for what happened in their classrooms. They were not inclined to blame external circumstances or pupil characteristics.....but concentrated on the ways in which they could improve the learning experience for pupils (James et al., 2007, in Armour, 2008).

The view that supports not only targeting the individual teachers but also improving the infrastructure within which teachers work and learn draws upon research evidence to suggest that where CPD takes place largely out of the school context, in traditional terms, and is undertaken by individual teachers, there has been very limited impact upon practice (Elmore, 2002; King & Newman, 2001; Smyth, 1995) mainly because teachers return to schools that do little to support them. This leads some to argue that CPD should be partly understood as a tool for building school capacity for ongoing improvement (King & Newman, 2001). King (2001) argued:

If innovative approaches to professional development stress only individual teachers' learning, while neglecting to help a whole faculty to integrate their learning for the collective advancement of students in that school, organisation learning is diminished (p. 3).

Similarly, Elmore (2002, p. 23) stressed that 'investing in more professional development in low-capacity, incoherent systems is simply to put more money into an infrastructure that is not prepared to use it effectively'. Therefore, there is increased recognition of the need to achieve an appropriate balance between the two. As Eraut (1995), Hargreaves (1992) and Craft (2000) pointed out the professional development of teachers cannot be separated from the development of schools and vice versa.

In the present study, 'transforming' schools into learning organisations is acknowledged as a fundamental factor that facilitates ongoing teacher learning. As discussed later in this thesis (section 2.3.5), although the present study adopted elements of a situated understanding of learning as a theoretical framework, the study was not intended to examine the existing structures per se, but rather to explore how these PE teachers, as individual agents, experienced the existing PE-CPD system, engaged in professional learning, and understood the influence of the immediate (e.g. school) and wider (e.g. policies) context upon their capacity to learn and develop as professionals. In that framework, it is important to examine what the existing international literature says about CPD experiences that revitalise teachers' commitment to their pupils' learning and have a positive impact upon teacher learning and practice. The following section, therefore, summarises the available literature on effective CPD.

2.1.3 Literature on Effective CPD

There is widespread agreement that professional development for teachers is a vital component of policies to improve the quality of teaching and learning in schools (Ingvarson et al., 2005; Reynold & Teddlie, 2000). Consequently, a plethora of researchers have sought to explore, identify, and understand the

magic 'principles' of effective/ineffective CPD (Armour & Yelling, 2004; Bredeson, 2000; Cohen & Hill, 1998; Corcoran, 1995; Cordingley, 2008; Darling-Hammond, 1998; Fishman et al., 2003; Garet et al., 2001; Gray, 2005; Guskey, 2002; Hewson & Loucks-Horsley, 1997; Ingvarson et al., 2005; Lee, 2000; Loucks-Horsley et al., 2003; Meiers & Ingvarson, 2005; Pickering, 2006; Sparks, 2002; WestEd, 2000). As a result, numerous sets of guiding 'principles' or 'lists' that draw together points of agreement in the international literature on what makes CPD effective (Bredeson, 2003; Guskey, 2003) have been produced not only by researchers and research agencies, but also teacher associations (i.e. ACME, 2006), and government agencies (GTC, 2007; OFSTED, 2002); and these abound in the international literature (Wilson & Berne, 1999). For example, Hawley & Valli (1999, p. 38) developed a set of eight design principles for effective CPD. They argued that CPD is effective when it:

- Is driven by analysis of the differences between standards for student learning and real student performance;
- Involves learners (such as teachers) in the identification of their learning needs and, when possible, the development of the learning opportunity and/ or the process to be used;
- Is primarily school-based and integral to school operations;
- Provides learning opportunities that relate to individual needs but for the most part are organised around collaborative problem solving;
- Is continuous and ongoing, involving follow-up and support for further learning, including support from sources external to the school;
- Incorporates evaluation of multiple sources of information on outcomes for students and processes involved in implementing the lessons learned through professional development;
- Provides opportunities to develop a theoretical understanding of the knowledge and skills to be learned;
- Is integrated with a comprehensive change process that deals with the full range of impediments to and facilitators of student learning.

Guskey (2003) reviewed 13 lists of characteristics of effective CPD and he identified 21 attributes of effective CPD. The five most frequently listed were

the following: (1) enhance teachers' content and pedagogical content knowledge; (2) provide sufficient time and other resources; (3) promote collegial and collaborative exchange; (4) evaluate CPD initiatives; and (5) conduct school-based CPD. Another example of the consensus that is beginning to emerge can be seen in the work of Bolam & Weindling (2006) who engaged in a systematic review and synthesis of 20 research studies of CPD for teachers in England (published from 2002 to 2006). Bolam & Weindling (2006) argued that evidence clearly demonstrates that effective CPD is that which:

- Has a clear and agreed vision of what effective teaching looks like;
- Is based on the best available evidence of teaching and learning;
- Takes account of participants' previous knowledge and experience;
- Enables teachers to develop further experience in subject content, teaching strategies, uses of technology and other essential elements required for teaching to high standards;
- Is driven by a coherent long-term plan, so that it is sustained;
- Promotes continuous inquiry and problem-solving embedded in the daily life of schools;
- Provides support in the form of coaching and mentoring from experienced colleagues; and
- Included evaluation of impact on teaching and learning, which guides subsequent professional development efforts.

Furthermore, Garet et al. (2001) published one of the first studies designed to provide direct evidence of CPD effectiveness and impact upon teaching practice. This study was conducted as part of an evaluation of the Eisenhower Professional Development Programme, one of the largest investments in teacher CPD in the USA. Drawing upon a national sample of teachers' self-reports, Garet et al. (2001) found that CPD activities are effective when they give teachers opportunities for active learning (i.e. 'hands on' work) and are integrated into the daily life of the schools. Furthermore, their findings highlighted the importance of collective participation in CPD activities; that is, a group of teachers from the same school participating together in order to learn from and support each other on an ongoing basis. Garet et al. (2001)

particularly stressed the importance of subject-matter content as a significant factor in CPD effectiveness, reinforcing previous findings (i.e. Kennedy, 1998) that pointed out that the *form* of professional development seems to be less important than the substance or content of the experience.

The National Staff Development Center in the USA stressed that when looking at the notion of effective CPD, it is important to examine three features: the content of the experiences (i.e. is the content relevant to the teachers? Does it challenge them to progress?), the processes by which the professional development occurs (i.e. in what ways can the teachers-learners learn this content given who they are), and the contexts in which it takes place. These three features, namely content, process and context, are now discussed in turn.

i. Content

The content of professional development is believed to be critically important to its effectiveness (Garet et al., 2001; Meiers & Ingvarson, 2005). First, research evidence suggests that CPD is effective when it supports teachers to develop a deep understanding of subject matter in order to engage pupils in the kinds of learning required in current reform movements in education (i.e. Cohen & Hill, 1998; Kennedy, 1998) (see section 2.1.4 below). It has also been argued that, further to enhancing teachers' content knowledge, CPD should aim to enhance teachers' pedagogical content knowledge and support teachers to understand the diverse ways students learn particular subject matter (i.e. Cohen & Hill, 1998; Garet et al., 2001; Hiebert et al., 2002; Kennedy, 1998; Meier & Ingvarson, 2005). Understanding how students develop and learn is one of the core dimensions of teacher standards in the US (NBPTS, 2002). Linked to this, it has been argued that CPD needs to be connected to and based upon specific standards for student performance (NBPTS, 2002; Supovitz, 2001; Sykes, 1999); and, more recently, there seems to be widespread agreement about the need to ground CPD in a systematic examination of the differences between actual student performance and learning and standards for student learning (Guskey, 2003; Loucks-Horsley et al., 2003; Meiers & Ingvarson, 2005). Furthermore, what

seems to underpin all effective CPD is the importance of 'getting the content' right; in other words, to target CPD appropriately to teachers' and schools' needs and expectations. This requires a thorough and rigorous needs-identification process that can be undertaken in various ways by the teachers themselves, whole schools or the CPD providers (Chval et al., 2008; Loucks-Horsley et al., 2003; Patton & Schnite, 2005).

ii. Process

In terms of the CPD processes and practices, it is argued that as 'facilitators' of teacher learning, CPD providers need to foster active and collaborative professional learning experiences. In other words, teachers must be given opportunities to engage in the learning process as active learners who reflect upon their practices, construct their own understandings, challenge, redefine teaching practice and, optimistically, build their capacity for ongoing learning and development (Armour & Makopoulou, 2007; Garet et al., 2001; Ingvarson et al., 2005; Meiers & Ingvarson, 2005; Pickering, 2006; Sandholtz & Scribner, 2006). Secondly, teachers should be able to interact with one another and develop their capacity for 'critical collegiality' (Lord, 1994, cited in Nicholls, 1997) both within their schools and with colleagues in other settings (Bolam & Weindling, 2006; Burbank & Kauchak, 2003; Clement & Vandenberghe, 2000; Day, 1998; EPPI, 2004; Ingvarson et al., 2005; Kennedy, 2005; MacBeth, 2007; Rosenholtz, 1989; Schnellert et al., 2008; Stonach & McNamara, 2002; Wilson & Berne, 1999). Indeed, specific CPD strategies are extensive and diverse, yet all seem to be underpinned by an understanding of learning as active and social. Loucks-Horsley et al. (2003) have recently identified 18 CPD strategies for professional learning clustered around six broad categories. The majority of these lie within what Garet et al. (2001) called 'reform' types of CPD. These are presented in table 1.

As illustrated in table 1, teachers as active and collaborative learners are encouraged to examine existing practices and pupil learning through (individual or collaborative) action research or 'teacher research' (Campbell, 2003; Elliot, 2004; Evans et al., 2000; Haggarty & Postlethwaite, 2003; Kirkwood & Christie 2006; Sachs, 1999; Zeichner, 2003); critical inquiry and

problem solving activities (Groundwater-Smith & Dadds, 2004; Luft, 2001); case discussions (Coskie, 2008; Loucks-Horsley et al., 2003; Putnam & Borko, 2000); and careful examination of students' work (Ancess, 2001; Craft, 2000; Little, 2004; McDonald, 2001).

Table 1: CPD Strategies (Loucks-Horsley et al., 2003)

Categories	
Aligning and implementing curriculum	<ul style="list-style-type: none"> • Curriculum alignment and instructional materials selection • Curriculum implementation • Curriculum replacement units
Collaborative structures	<ul style="list-style-type: none"> • Partnerships with other teachers, academics and universities • Professional networks • Study groups
Examining teaching and learning	<ul style="list-style-type: none"> • Action research • Case discussions • Examining student work and thinking, and scoring assessments • Lesson study
Immersion experiences	<ul style="list-style-type: none"> • Immersion in inquiry and problem solving activities • Immersion into the world of scientists
Practicing teaching	<ul style="list-style-type: none"> • Coaching • Demonstration lessons • Mentoring
Vehicles and mechanisms	<ul style="list-style-type: none"> • Developing professional developers • Technology for professional development • Workshops, institutes, courses, and seminars

In addition, teachers are encouraged to engage in regular collaborative interactions; namely work on an one-to-one basis as mentors/ coaches with an explicit focus on teaching and learning (Alred & Garvey, 2000; CUREE,

2007; DfES, 2004; Dunne & Villani, 2007; Friedman & Philips, 2002; Garvey & Alred, 2003; Griffin & Ayers, 2005; Kajs, 2002; McCaughtry et al., 2005; Roberts, 2000); and participate in professional networks (Cordingley & Temperley 2004; Earl & Katz 2005; Lieberman, 2000; Lieberman & Wood, 2002; 2001; Mundry 2005; Tripp, 2004); study groups (McDonald, 2001); and professional learning communities (Bolam et al., 2005; Hollingsworth, 2004; Hord, 1997; Jackson & Tasker, 2002).

It has been argued that there can be no 'one size fits all' approach to effective teacher professional development (Guskey, 2003; Loucks-Horsley et al., 2003) but rather CPD effectiveness rests on developing an 'optimal mix' of professional development processes and strategies that will work best in a specific context at a particular point in time (Guskey, 1995; Loucks-Horsley et al., 2003; Stein et al., 1999). It is widely recognised that the reality of CPD is that what works in one setting is unlikely to work in quite the same way in another (Meiers & Ingvarson, 2005). Depending on the specific circumstances, therefore, CPD might need to take place in a school setting and involve group work with colleagues around actual teaching; or, on other occasions, teachers might value out-of-school CPD, where they are presented with valuable opportunities to examine their practice with 'fresh eyes' (Greene, 1995). Bredeson (2003) described this as the 'architecture of professional development' that is meaningful and relevant to particular teachers and schools. As a consequence, Loucks-Horsley et al. (2003) encouraged CPD providers to plan CPD provision by consulting the extensive knowledge base on CPD that can inform their work; by understanding the unique features of their own and teachers' contexts; by exploring the existing knowledge, skills, and understanding of individual delegate teachers; and by drawing upon a wide repertoire of professional development strategies in order to provide relevant, applicable and innovative CPD experiences to teachers. Loucks-Horsley et al. (2003) also recommended CPD providers to subject their work to rigorous evaluation; and stressed the importance of aligning CPD activities with specific goals and anticipated learning outcomes.

In this context, there is a recent upsurge of interest in CPD evaluations and these are viewed as critical for improving the quality of future provision (Armour & Makopoulou, 2006; Guskey, 2002; 2000; Loucks-Horsley et al., 2003). Guskey (2000) explained that evaluating professional development initiatives is vital in an age of increased accountability; and Ingvarson et al. (2005) acknowledged that, with increasing funding and high expectations for CPD, 'evaluators need to answer much more penetrating questions than 'what did you learn from the workshop?'' (p. 2). Guskey's (2000) evaluation model has been designed to evaluate CPD programmes not just in terms of teacher satisfaction but also on the basis of whether teacher, student and/or school goals were met. Indeed, Guskey (2000) suggested that the impact of a CPD programme can take place at five different levels: (i) participant reaction; (ii) participant learning; (iii) organizational support and change; (iv) participant use of new knowledge and skills; and (v) pupil learning outcomes. Another powerful evaluation tool that has been employed in the field of CPD and PE-CPD, is 'Logic Models' (Kellogg' Foundation, 2004; 2001).

As illustrated above, there are numerous studies that have attempted to document the meaning, purpose and (perceived) effectiveness of these different types of CPD engagement. However, as reported in the introduction of this thesis, there are still fundamental questions to be addressed in relation to the challenging links between different types of CPD, teacher learning, teaching practice and, even more problematically, pupil learning (Elmore, 2002; Garet et al., 2001).

iii. Context

As previously discussed, current research literature suggests that teachers learn most effectively when they work together on a sustained basis (McLaughlin & Talbert, 1993) and when there are sufficient structural and cultural conditions to support effective professional development (Vandenberghe, 2002). Therefore, there is widespread agreement that the context in which teachers work and learn plays a vital part in professional learning and CPD effectiveness. In that framework, building professional

learning communities has been at the heart of many professional development initiatives (Barab & Duffy, 2000; Hord, 1997; Little, 2002; Newman, 1994; WestEd, 2000; Bolam et al., 2005; Hollingsworth, 2004; Jackson & Tasker, 2002; Keay, 2006; Stoll et al., 2006; 2003; Toole & Louis, 2002). McLaughlin & Talbert (1993) argued: “the path to change in the classroom core lies within and through teachers’ professional communities” (p. 18).

In one of the first studies to explore the emerging notion of schools as learning communities, Louis et al. (1996) found that the development of strong professional communities within schools was associated with not only increased support for student achievement but also high academic performance of students who were more likely to be minority and economically disadvantaged. Little’s (2002) more recent study provided evidence that “strong professional development communities are important contributors to instructional improvement and school reform” (p. 936). Similarly, exploring the factors that enabled eight case study schools to ‘turn students’ performance around’, the WestEd (2000) report identified the establishment of a school-wide professional culture of learning (for both teachers and pupils) as the key to success. WestEd (2000) defined the following six elements as central to such a culture:

- Ensure that student-centred goals underpin all professional development
Accept an expanded definition of professional development, embracing a wide range of formal and informal learning experiences
Recognise, valued and make space for “ongoing, job-embedded informal learning” (p. 22).
- Structure a collaborative learning environment
Ensure there is time for professional learning and collaboration
Check (constantly) whether professional development is having an impact on pupils’ learning.

However, it must be acknowledged that, evidence of these research projects reveal that the development and establishment of professional learning communities, either within or across schools, is challenging and time consuming. This is an issue that will be further discussed in section 5.3.

2.1.4 CPD vision: 'Building a Learning Profession' (Ingvanson, 2003)

It has been argued that current demands for ongoing, inquiry-oriented, active and collaborative professional learning opportunities aim to encourage a conceptual shift from a focus on the performance dimension of teaching to the support of meaningful pupil learning (Armour, 2008). It has also been argued that these emerging CPD structures are primarily driven by, and embodied within western governments' long term vision of the kind of teachers, schools and citizens they want to create for the 21st century (Borko, 2004; Day & Sachs, 2004; Ingvanson, 2003; Kelchtermans, 2004). The White Paper for Education, issued by the European Commission (1995), was the driving force behind educational reform initiatives in many European countries.

At a national level, a striking example of the changing demands on teacher and pupil learning is the 'Every Child Matters' policy agenda in England (DFES, 2004). The vision underpinning the strategy is to create autonomous and independent learners; and there is an ongoing debate about the role of the school in the preparation of citizens that are able to think critically and creatively, work collaboratively, and take risks (August et al., 2006). Teachers, in this framework, are encouraged to differentiate and 'personalise' their teaching that can lead to deep learning for all pupils. Similarly, the introduction of the revised national curriculum for Key Stage 3 in England in September 2008 is intended to have a profound influence on the nature of teaching and learning in all subjects. In this framework, it has been argued that 'transmission'.... mode of [teaching and] learning is no longer appropriate' (Gray & Bryce, 2006, p. 186). Unsurprisingly, perhaps, recent consultation and review documents in England (August et al., 2006) question whether teachers will be able to address these new policy agendas effectively. This concern is not unique to the English context; and, in this ever-evolving and challenging educational landscape, researchers have consistently and increasingly questioned the adequacy of existing CPD structures (Ball & Cohen, 1999; Elmore, 2002).

2.1.5 The 'Inadequacy' of the Current CPD System

As discussed in the previous section, educational reforms in several parts of the world appear to require teachers to be able to foster critical thinking and problem solving, understand diversity, work collaboratively to solve problems, rethink and challenge their own practice, and develop a positive attitude toward lifelong learning. Within this framework, there is a growing understanding that 'traditional' CPD approaches are not very effective in supporting these radically different learning outcomes for teachers – so teachers are unlikely to be able to foster them in pupils (Armour, 2008; Elmore, 2002; Fishman et al., 2003; Fishman et al., 2000; Little, 1993b).

Traditionally, CPD provision has been characterised by a narrow form of delivery: mainly 'off-site'; delivered 'en masse' to teachers; dominated by what is called 'one-shot' courses, workshops or conferences; and 'rushed' so all the important knowledge can be 'transmitted' in a limited period of time (Armour, 2006; Armour et al., 2009; Ball & Cohen, 1999). In this model, there is rarely the opportunity for follow-up support for teachers in schools (Guskey, 1995). According to Burrill (2001), this type of professional development is valuable when the goal is to reach and inform many teachers; provide stimuli for new thinking; and serve as a network for teachers to interact with one another about what they teach. However, the international research literature is almost unanimous in its findings that when course attendance is the main (or only) vehicle for professional development, many learning opportunities are missed (Armour & Yelling, 2004; Connelly & James, 1998; Day, 1999a; Elmore, 2002). Thomas Guskey (2004) summarised these critiques as follows:

CPD is brief and rarely sustained, deficit oriented, radically under-resourced, politically imposed rather than professionally owned, lacking in intellectual rigour or coherence, treated as an add-on rather than as part of a natural process (p. xii).

Little (1993b) stressed that the training model that has dominated CPD provision is not adequate to the current ambitious visions of teaching and schools. Furthermore, Borko (2004, p. 3) criticised that the traditional 'seminarsare fragmented, intellectually superficial, and do not take into

account what we know about how teachers learn' (Borko, 2004, p. 3). Similarly, in the PE field, Armour (2008; 2006) has consistently pointed out that this traditional CPD design 'contradicts everything we know about the ways in which people are most likely to learn' (Armour, 2006, p. 204).

It could be argued that the key message conveyed by the prevailing 'traditional' CPD model is that professional knowledge is a static, given commodity or product that can be quickly picked up and internalised by the delegate teachers; and that professional practice can change 'automatically' as a result of CPD participation (Bredeson, 2002; Stein et al., 1999). This model seems to be based on the assumption that teachers need opportunities to 'extend', 'renew', 'add' or 'refresh' their knowledge and skills in a top-down fashion (Fraser et al., 2007; Grundy & Robison, 2004); by replacing the 'old' and 'worn out' with an updated version of practices (Grundy & Robison, 2004; Rogers et al., 2007; Sandholtz & Scribner, 2006). In other words, this is a 'deficit' approach to teacher professional development, which assumes that teachers' knowledge base is lacking and needs to be 'added to' or 'corrected' (Huberman & Guskey, 1995; Kennedy, 2005; Little, 1993b) at a time when the teachers themselves are too rarely engaged in a systematic analysis of their CPD needs (Bolam & Weindling, 2006). However, Sandholtz & Scriber (2006) have argued that a narrow, top-down CPD approach 'ends up being separated from the central concerns of teachers' (p. 1105) and so has limited influence upon teachers' practices and pupil learning. As Fullan (2003) pointed out:

One-shot workshops still seem to be ineffective as topics are selected by people other than the ones receiving it, and follow-up support was found to be rare (p. 255).

Furthermore, when provided 'en masse' to teachers, this CPD model fails to meet the diverse needs of "different teachers at different stages in their careers who work in a range of different schools with different facilities and pupils who differ in their learning needs in all sorts of ways" (Armour et al., 2009, p. 4). Wilson & Berne (1999) argued that this CPD model is particularly ineffective when fundamental changes in teachers' beliefs and understandings of the subject matter are required; and highlighted that

teacher change cannot occur by simply showing teachers how to implement effective practices. In this framework, Borko (2004) described this CPD model as 'woefully inadequate' (p. 6); and, in the PE-CPD field, Armour et al. (2009) talked about a structure that is largely 'incompetent' (p. 215).

2.1.6 PE-CPD Literature

It has been argued that, over the last decade, the amount of the available PE-CPD literature has increased significantly. As Bechtel & O'Sullivan (2006) pointed out, scholarly work has now focused on exploring a wide range of issues around PE-CPD, including not only teachers' life histories (Armour & Jones, 1994; Sparkes, 1998) but also the complex process of change (Patton & Griffin, 2008) and the importance of context and school support in teacher learning and teacher change. There are also studies that explore teachers' views, perceptions and experiences of PE-CPD (Armour & Yelling, 2007; 2004; O'Sullivan, 2006a). Furthermore, Bechtel & O'Sullivan (2006) cited a number of PE researchers/ academics who work closely with PE teachers to develop and implement CPD opportunities that are meaningful and relevant to their needs. In addition, there appears to be an emerging interest in systematic evaluations of the impact of PE-CPD opportunities upon teaching practice in England (Armour & Makopoulou, 2008; 2007; 2006a; 2006b) and New Zealand (Petrie et al., 2007). Bechtel & O'Sullivan (2006) provide a comprehensive review of existing trends in PE-CPD research, and rather than reproducing it, this section provides an overview of selected PE-CPD programmes and research studies in order to illustrate some of the key emerging issues in the field.

One of the first studies that set out to explore PE teachers' CPD experiences and views in England was conducted by Armour & Yelling (2007; 2004; 2003). The purpose of this study (funded by the ESRC) was twofold: first, to explore the patterns of experienced PE teachers' CPD histories and their views on the nature, quality, and relevance of these experiences; and second, to capture how these teachers understood 'effective' PE-CPD (CPD that has had an impact on teachers' practices and, when possible, pupil learning). The key

findings of this study largely reflected the international CPD literature discussed in sections 2.1.3 and 2.1.5. In terms of the nature and quality of existing PE-CPD, these English teachers stressed that: the dominant form of PE-CPD provision was generally off-site, traditional and technocratic in nature, and that it was limited in scope. Furthermore, it was also noted that these PE teachers' CPD profiles were 'haphazard' and did not demonstrate any clear pattern of development. In terms of the features of effective/ineffective CPD, key findings from these teachers included the following: a CPD experience is effective when it is practical, relevant and applicable, able to provide ideas and practices; delivered by a charismatic tutor; challenging and thought provoking, and able to provide time for reflection and collaboration (Armour & Yelling, 2004). It is interesting to note that these features of effective CPD reflect these teachers' understanding of CPD as a formal, external intervention.

Furthermore, there is an increasing body of PE-CPD literature that seeks to provide evidence of the impact of professional development programmes upon teacher learning. Most of this work comes from the USA. For example, in a special issue in the *Journal of Teaching in Physical Education* in 2006, Ward & O'Sullivan (2006) (editors) discussed the context of a professional development initiative – Physical Education for Progress (PEP) – the outcome of a partnership between faculty from Ohio State University and the Columbus Public Schools in the US over the period of 4 years. This CPD initiative aimed to develop communities of teachers who viewed themselves as thinking, reflective learners (Ward & O'Sullivan, 2006). In the context of this project, Deglau & O'Sullivan (2006) reported a considerable impact on teachers' beliefs and practices as a result of their engagement in a long-term professional development programme. Deglau & O'Sullivan (2006) identified a number of features as positively contributing to the reported outcomes:

The long-term nature of this programme, and its commitment to providing opportunities for teachers to engage with each other within a community of practice, resulted in many of the teachers forming strong identities as teaching professionals willing to participate within the professional community in their school district (p. 395).

As part of the same project, O'Sullivan & Deglau (2006) offered useful insights or 'lessons' on the principles of effective PE-CPD drawing upon their own experiences as professional developers. They suggested that effective PE-CPD not only involves opportunities for teachers to be active learners and share experiences and ideas; but also is embedded in classroom practice, driven by clear student learning outcomes and focused on content knowledge. O'Sullivan & Deglau (2006) further pointed to the importance of meaningful follow-up support. In the same context, and similar to the points raised in the wider CPD literature, Ko et al. (2006) raised questions about the effectiveness of CPD workshops; and suggested that in order to be effective, professional development providers must develop a thorough understanding of the delegate teachers' contextual barriers; including not only the physical education settings in terms of available resources and facilities, but also individual teachers' prior knowledge and existing practices. In the light of these findings, Ko et al. (2006) wrote: CPD should 'provide resources to help teachers to integrate new curricula and instructional skills into their existing contexts'; and/ or 'include the use of authentic contexts' in the form of mentoring partnerships in order to facilitate meaningful teacher change (p. 412). In other words, they suggested that effective PE-CPD must be grounded in teachers' practices.

In another PE-CPD initiative in the USA, namely the Assessment Initiative for Middle School Physical Education (AIMS-PE) programme, Patton & Griffin (2008) attempted to explore the complex process of teacher change. In brief, this study highlighted the importance of individual agency in the learning process by illustrating the case of two teachers, who, despite the fact that they participated in the same CPD experience, reported fundamental differences in the ways they experienced and understood the process of change. In the context of primary PE-CPD in England, Duncombe (2004) examined the role of Collaborative Professional Learning as a learning strategy for teachers' professional development within primary physical education. One of the major findings from this research was that teachers struggled to learn collaboratively and Duncombe (2004) identified three potential reasons for this: teachers did

not have the necessary PE subject knowledge to share with their colleagues; schools lacked the structures to enable ongoing interactions; and the researcher did not attempt to develop 'learning communities' which, as relevant literature has shown, could have provided powerful learning opportunities to enable teacher collaboration.

The studies reported so far reflect a common goal: that is, to provide evidence that, and explain when, how, and why, a professional development initiative does or does not have positive impact upon teacher learning. This type of research reflects what Borko called the 'Phase One' CPD research activities. The study discussed in the following paragraphs, namely the independent evaluation of the National PE-CPD programme in England, reflects Borko's Phase Two category of CPD research, which aims to 'determine whether a professional development programme can be enacted...in different settings and by different professional development providers' (Borko, 2004, p. 9). The national PE-CPD programme is unique in the history of CPD in England. The National Programme is funded by central Government, designed and managed by a national consortium of professional organisations, and adapted and delivered by local agencies (known as LDAs). The programme began in 2003 and although planned to run until 2006, it has been extended until 2008 with supplementary funding for improving the quality of PE-CPD at the secondary level. Even more uniquely in physical education, funding was earmarked for an independent evaluation to run alongside the national programme; and this was carried out by Armour and Makopoulou (Armour & Makopoulou, 2008; 2007; 2006a).

Between 2003 and 2006 (phase one), the dominant form of delivery were CPD 'modules' on a range of topics that were delivered by the LDAs and adapted to be relevant in local contexts. Many of the findings from the first stage of the evaluation reinforced existing findings on effective/ ineffective CPD and PE-CPD. For example, opportunities for active and interactive professional learning experiences were considered a crucial element of CPD effectiveness by both delegate teachers and CPD providers. This has been defined as the very opposite to some previous CPD where teachers had

limited input into CPD practices and processes. Echoing Garet's et al. (2001) point, another particularly interesting finding from the evaluation was that collective teacher participation in the national modules was perceived as an effective CPD experience for the following reasons. First, during the modules, teachers from the same school reported that they developed a shared language and collective frameworks of understanding. Second, this shared understanding formed the foundations for subsequent team work and peer support during the challenging implementation phase, when teachers struggled to initiate change in their schools. Third, there is also evidence that collective participation held the promise of long-term, sustained impact upon teachers' practices. However, it became apparent that, while a wide range of learning opportunities were available to teachers in terms of content (sufficient 'breadth' in provision), there were far less opportunities for teachers to pursue CPD that would further develop their areas of interest (lack of 'depth'). In light of these findings, the evaluation team (Armour & Makopoulou, 2006a) identified 'learning progression' as a key issue to be addressed if the momentum that had built up in this programme was to be sustained.

In response to these findings and other evidence (i.e. national figures which demonstrated a relatively low CPD participation rate for secondary PE teachers in the first phase of the national programme), in April 2006 (phase two), the National PE-CPD programme took a new direction. LDAs were specifically asked to design 'innovative' PE-CPD programmes with the aim of attracting and engaging secondary PE staff in ongoing and meaningful learning. The development of 'professional learning communities' was one suggestion made although the concept of innovative CPD was open to local interpretation. In terms of the evaluation strategies, a case study approach was adopted to find out how selected LDAs conceptualised innovative CPD, how CPD plans were implemented and evaluated, and whether/how there was an impact on teachers' learning.

The key finding from this stage of the evaluation featured a focus on professional developers' (LDAs) capacities (or lack of capacity) to facilitate meaningful, sustained and progressive professional learning. There was clear

evidence that the challenge to design 'innovative' forms of CPD inspired some LDAs to think differently about their provision. Central to all the learning approaches seen in the research was an understanding that teacher *learning* is most effective when viewed as fundamentally active and social/collaborative in nature. One of the most common CPD strategies to encourage professional collaboration was the development of teacher networks, partnerships or communities of learners. There was evidence that teachers enjoyed this form of learning but that, at times, LDAs needed further training to enable them to sustain and maximise the potential of these learning structures.

In the executive summary of the final report to funders (April 2008), the evaluators reported that a number of issues had arisen which help to explain why CPD initiatives were sometimes not as successful as were intended to be:

- There was some evidence that LDAs were attempting to empower teachers to become 'thinking', 'knowledge creating' learners. However, there were also examples where, in practice, the CPD activities required teachers to do little more than translate policy documents.
- Some LDAs had an expectation that providing active and creative CPD experiences for a small group of enthusiastic PE teachers would result in a pool of knowledgeable, enthusiastic, and independent PE teacher-learners who could inspire other colleagues in school and in the local authority. There was little evidence to suggest that such cascading of learning was feasible in most cases.
- LDAs had aspirations to provide on-going support for teachers' learning when they returned to their school contexts. However, there was little evidence to suggest that they had found workable ways to achieve this.
- LDAs had aspirations to evaluate their programmes systematically, but few had been able to put in place effective evaluation strategies.
- Looking across the data from this evaluation it was also clear that although sustained engagement in professional learning was one of the aims of the programme, learning progression – understood in this

instance as the opportunity to develop learning in specific areas – was rarely possible for the participating teachers.

In that context, the evaluators recognised that despite the fact that ‘progression’ is a clumsy term for what they were trying to theorise, they prompted policy makers, researchers, and teachers to consider the ways in which teachers’ continuing learning has been both conceptualised and structured in PE; and questioned: ‘if teachers really did continue to learn in PE throughout their careers....what would PE knowledge look like?’ (Makopoulou & Armour, 2007).

Up to this point, the literature presented has been drawn mainly from countries in Europe, USA and Australia. However, this research project is examining PE-CPD in Greece, where very little PE-CPD exists. It is important, therefore, to provide an overview of the national context in which this research is located.

2.2 The Professional Development of (PE) Teachers in Greece

The previous section provided an overview of the international literature on CPD and PE-CPD. This section shifts attention to the Greek context in which this study was conducted. In section 2.1.1, it was argued that the notion of CPD (that is, ‘επιμόρφωση’) in Greece largely reflects a ‘traditional’ approach; despite rhetoric both in the international (i.e. Garet et al., 2001) and Greek literature (i.e. Μαυρογιώργος, 1996) on the need to foster active, collaborative and critical professional learning that supports meaningful pupil learning. This section provides information on the broader educational and CPD context in Greece in order to provide a context for the views and experiences of the research participants. Some of the issues to be addressed in the following pages include the following: What are the fundamental elements of the Greek educational system (section 2.2.1)? Where and how are PE teachers trained (section 2.2.2) and what are the conditions in which they work, once appointed (section 2.2.3)? What is the CPD policy context and how has teacher professional development evolved over the years (section 2.2.4)? What is the current situation in CPD policy, research and practice (section

2.2.5)? This section begins with some general information on the Greek educational system which is the context within which teachers operate.

2.2.1 Education and CPD Policy Initiatives in Greece

Education in Greece is compulsory for all young people from the ages of 6 to 15 and is comprised of primary (Dimotiko) and secondary schools (Gymnasio). Primary education denotes pupils up to age 11 (6 grades); gymnasio includes students from 12-14 (3 grades). The meta-compulsory education includes students from 15-17 and comprises two types of schools: the unified Lyceum (3 years of study/ 3 grades) and the Technical Professional School (2 or 3 years of study/grades), which is a more technical form of education. Education in Greece is, constitutionally, a basic mission of the State and its aim is to provide moral, intellectual, vocational and physical instruction for all citizens, to promote national and religious awareness and to develop free, responsible citizens. It is also stated that every citizen has equal educational opportunities irrespective of family background, origin, and sex. Education in Greece, in this respect, is almost entirely state-funded and non-discriminatory, and is governed by National laws passed by the Parliament. The Ministry of Education and Religious Affairs (MERA) has overall educational responsibility, exerting considerable control over the formulation and orientation of national policies for education. Moreover, the basic functions of this Ministry consist of coordinating the regional services and schools and providing financial support for educational activities. The Ministry is responsible for funding and designing teacher professional development activities at national level; however, MERA does not operate in isolation. Some functions and responsibilities have been delegated to public organizations and other bodies, which report directly to the Ministry.

The Pedagogical Institute is an autonomous public body operating under the supervision of the MERA, covering primary, secondary and vocational education. Established in 1964, the Pedagogical Institute is responsible for the continuous improvement of the education system. Amongst its responsibilities, the Pedagogical Institute has instigated the introduction and

establishment of a new Cross-Thematic Curriculum; and plays an active role in designing and implementing CPD opportunities for this and other educational initiatives. The importance of structured learning opportunities for teachers is further reinforced by the establishment of the Institute of In-Service Education for Teachers (OEPEK). This organization is an autonomous private body operating under the supervision of the MERA. Its mission statement, as published in official policy documents (Εφημερίς της Κυβερνήσεως, 2002a), is:

- a) To plan policy initiatives regarding the professional development of teachers of both primary and secondary education, and prepare the relevant recommendations for the Secretary of Education and Religious Affairs;
- b) To co-ordinate all the forms of professional development opportunities available to teachers;
- c) To design the professional development activities available to teachers, which are accepted by the Secretary of Education and implemented by the training institutions;
- d) To assign the responsibility for the professional development of teachers to qualified institutions;
- e) To administer the resources available for the professional development of teachers;
- f) To certificate institutions to undertake the responsibility to further educate teachers.

It would appear, therefore, that the intention has been to establish an organization that will be able to 'take charge' of the CPD for teachers and provide coherent and sustained learning opportunities. Certainly, this policy initiative reflects both the political will to take CPD seriously and the pressing social and economic need to invest in human knowledge. However, although established in 2002, it was only in 2007 that OEPEK started gradually to address some of the responsibilities outlined above. Up until 2006-2007, its role was restricted only to designing and supporting the induction training programme for those teachers who have recently been nominated to state schools in Greece (see section 2.2.4). In that framework, there is an ongoing debate regarding the 'inflexible' nature of the Greek educational system and calls for a less centralized administration and management (Patramanos & Athanasiades, 2002; Zambeta, 2000). In any case, it is important to highlight the striking differences between the Greek system, which is highly regulated by national legislative framework but which lacks evaluation mechanisms; and

the decentralised, yet highly monitored and standards-oriented approach that dominates 'western' countries (Quicke, 1999).

2.2.2 Initial Teacher Training and Teaching PE

Physical education, which is the focus of this study, is compulsory in all years of schooling, from the ages of 6 to 17, and is taught by physical education (PE) teachers. PE teachers have to be educated and trained in one of the four Departments of Physical Education and Sport Sciences in Greece, in order to be qualified to teach in primary and secondary education. Greece has incorporated all forms of teacher education into the university sector (law 1268 of 1982). Similar to many other countries, universities consist of departments, some of which are exclusively related to teacher education (i.e. nursery and pedagogical departments), others are closely related to education (e.g. department of physical education and sport sciences, department of Greek language); while others have little or no direct relevance (e.g. economic science departments) (Psycharis, 2002). An initial degree for teachers requires four years of study. Over the last two decades, there has been a lot of debate regarding the quality of initial teacher training in the existing system that is principally dominated by a scientific orientation, and limited support for prospective teachers to grasp some of the complexity of teaching in schools (Psycharis, 2002). Χατζηδμήμου (2003) wrote:

It seems that universities neglect their central mission; that is, to educate prospective teachers and not merely 'scientists' whose basic goal is to communicate science (p. 31).

Psycharis (2002) acknowledged that some university departments have incorporated in their curricula 'teaching practice', where student teachers are expected to observe and teach in state schools for a period of time and prepare relevant assignments. However, there seem to remain crucial questions regarding the duration and quality of such experiences (Χατζηδμήμου & Στραβάκου, 2003). To illustrate some of these issues, the next paragraph describes the case of teaching practice in the department of

physical education and sport sciences in the University of Athens, drawing upon the existing curriculum.

During the third year of the degree, all students participate in teaching practice, which is timetabled for five hours per week for the duration of the year (2 semesters), consisting of teaching practice (2 hours), lectures (2 hours) and workshops/ tutorials (1 hour). In particular, students in pairs undertake the responsibility to teach one class in primary state schools for the first semester, and one class in a secondary school for the second semester. This experience appears to have been designed with the aim of familiarising students with the school environment and the implementation of the NCPE. The role of the university tutors is twofold: first, to provide theoretical support in the form of the two hour lectures each week; and second, to provide ongoing support and guidance in the form of one-hour, single-sex group tutorials (approximately 20-25 students in each group) each week. During the tutorials, students might design lesson plans, practise teaching strategies, and discuss their experiences in schools. At the end of each semester, students sit exams and prepare an assignment on lesson planning in order to be assessed.

It could be argued that there are two clear problems with this arrangement. First, it seems that the universities have undertaken the responsibility to train *all* undergraduate students to become teachers, creating a system where there is an over-supply of teachers while the demand is low. In addition, the large number of students participating in PE teaching practice (for example, in the departments of physical education and sport sciences in the university of Athens alone, approximately 600 students are admitted annually – and this is only one of the four universities that provide eligible PE and sport degrees) also compromises the quality of what is available. This seems to lead to the second problem, which is the lack of support from the university tutors while students are in schools; no form of evaluation of teaching practice takes place. Another related problem is that the role of the school teacher in this process is uncertain since no formal support is provided by the university. In this framework, it could be argued that the quality of the training process is

probably dependent upon the expertise and motivation of individual teachers and administrators in each school.

2.2.3 Getting Into Teaching and Career Ladder

Teachers in Greece are civil servants with rigorous competition for entry but security of tenure in their professional careers once they enter. For reasons explained above, the demand for teachers in Greece, contrary to the existing situation in the UK, the USA and elsewhere, is low while the supply is too high. In this situation, there is a strong possibility that many trained teachers remain out of the profession for a long period of time. Every two years, all university graduates from relevant departments have the opportunity to sit national tests in basic skills, content knowledge, and general pedagogical skills, conducted by the Supreme Employee Selection Board (ASEP). Those who achieve the best scores are appointed in state schools. However, given the negative relationship between demand-supply, for most of them a period of other professional interests intervenes until they finally get the chance to teach. Therefore, not all teachers taking a post in a state school for the first time have the same experience or background.

In the case of PE, recently appointed teachers can have previous experience in other fields of sports science, such as coaching. They can also be teachers with some years of experience in private education, or teachers with experience in state education, but not working on a permanent basis (a typical example is one of the case study teachers in this research, Margaret, see section 4.1.8). A few of them are successful in finding a teaching job immediately after graduation (like another case study teacher, Kathy, see section 4.1.4) and, at the other end of the spectrum, some may have been engaged in jobs that are largely irrelevant to the teaching/ coaching profession. This means that there are huge differences between newly appointed teachers who are going to follow the induction training programme; differences based on age, experience, culture, gender, level of performance, knowledge, needs and interests. This poses something of a challenge for CPD providers.

Furthermore, it is important to note that, historically, teachers' careers in Greek schools have been characterised as 'flat'. Once appointed, the typical career ladder in Greece has three stages (C, B, A); the entry level position is that of C. After 8 years in public education, all teachers reach the stage A and they do not anticipate any further major career progression, unless they pursue administrative posts (Kakavoulis, 1992). Les Mentais (1997) reported that these conditions limit the demand for CPD (cited in Bolam & McMahon, 2004). Furthermore, in 1981, the Government passed the law 1340/82, which abolished school inspectors and replaced them with school advisors. This change had significant educational implications because it was followed by the abolition of teacher and school evaluation. It has been argued that all these years, teachers failed to take advantage of their 'liberty' to promote an autonomous and self-directed teaching profession (Chrysos, 2000).

There are also increasing concerns regarding the quality of resources and facilities in schools. It has been argued that state schools are not provided with adequate infrastructures for PE provision (Κότσιρα, 2005). A recent project, commissioned by the Department of Education and Religious Affairs and undertaken by the Centre of Educational Research (KEE), aimed to map the current state of schools. The report graphically illustrated the inadequacy of PE facilities (Κότσιρα, 2005). It was found that only 6.8% of primary schools had an adequate indoor PE space, while only 11.4% and 24.8% schools reported having adequate volleyball and basketball pitches. In secondary schools, the situation appeared to be only slightly improved:

22.6%, 34.6% and 40.3% reported having sufficient and adequate indoor space, volleyball and basketball pitches correspondingly. Only 5.7% of the schools reported having adequate football pitches (Κότσιρα, 2005).

It is important to understand this national situation and context for teaching PE in order to better understand the research participants' views reported in this study. Lack of facilities was perceived to be an insurmountable problem for some of the case study teachers and, consequently, it was paramount for

them to engage in CPD opportunities that met their needs in realistic contexts of practice.

2.2.4 A Brief History of CPD Policy and Practice in Greece

At the policy level, two fundamental CPD reforms have been undertaken during the last 20 years. One of the first steps towards designing structural learning opportunities for teachers was made with the establishment of SELME (Σχολή Επιμόρφωσης Λειτουργών Μέσης Εκπαίδευσης – Centre for the Further Training of Secondary School Teachers) and SELDE (Σχολή Επιμόρφωσης Λειτουργών Δημοτικής Εκπαίδευσης – Centre for the Further Training of Primary School Teachers) in the late 1970s. The main operational features of these CPD programmes were: first, the long duration of the studies (one school year) - during which delegate teachers had leave from teaching; and second, the central role of the universities in designing and implementing the CPD curriculum, which consisted of theoretical approaches (i.e. pedagogy, psychology) and subject-specific practical experiences. Despite the fact that this CPD model was intended to offer teachers sustained professional learning opportunities, it was subjected to intense criticism by the teachers' union association for failing to reach, train and support a large number – for some the majority - of teachers.

A point of departure for debating and, for some within the government and educational community, challenging the centralized administrative structure of CPD was the abolishment of SELME/SELDE and the establishment of a network of sixteen regional centres for professional training all over Greece. The Regional Training Centres (PEK) are self-governed institutes responsible for *implementing* a variety of training programmes designed, funded, and evaluated by the central government and the other responsible bodies. The academic year beginning September 1992 has been acknowledged as the 'landmark' for the professional development of teachers in Greece, since PEKs, for the first time, were intended to provide equal and sufficient learning opportunities for both primary and secondary teachers. In this way, according to Χατζηδμήμος & Ταπατόρη (2003), the professional development inequalities

that existed between the two levels of education before this period were intended to be eliminated. In addition, it has been argued that the constitution of the PEK acknowledged and reinforced the notion that teachers are, and must be trained as, 'professionals' (Χατζηδόμος & Ταπατόρη, 2003).

Since 1992, these Regional Training Centres have been responsible for implementing the induction training for teachers. Once appointed, and while they engage in full-time teaching (22 hours per week), all teachers must attend the compulsory induction- training programme in order to gain registration and be eligible for employment as teachers (Ο.ΕΠ.ΕΚ, 2003). The basic aims of the induction training include the following: *'to refresh and enhance beginning teachers' theoretical and practical training; to harmonize their knowledge base and teaching skills with the school reality; and to inform them regarding functional, scientific and pedagogical issues'* (N. 1566/85, Αρθρο 28). The Ministry of Education and Religious Affairs (MERA) and the responsible bodies (the Pedagogical Institute and the Ο.ΕΠ.ΕΚ) provide official guidelines annually, which shape nationally 'what' needs to be delivered and in what ways. Broadly, the programme, which includes one hundred total contact hours, is implemented in three phases, and can be characterized as out-of-school professional training. Individual teachers from different schools within the same district/ borough attend 'workshops' at a scheduled time - often after school - taught by leaders with special expertise (usually school advisors or academics). Some developmental activities are common for all teachers, while the remainder of activities vary based on grade level and subject. Those teachers with more than one year of previous teaching experience in state or private schools are obliged to attend only the first phase. Details on the three phases of the programme can be found in appendix A.

In 1996, MERA, in collaboration with a leading researcher/ academic in the area of CPD, produced a key CPD document (Μαυρογιώργος, 1996) that resulted in a fundamental change in the way CPD in PEK was structured. Crucially, in this document it was acknowledged that initial teacher training is

only a small fraction of teachers' development and that there was an urgent need to support teacher change at the level of practice:

Any educational reform requires, amongst other things, sufficient time and systematic daily support to teachers in their schools (Μαυρογιώργος, 1996, p. 4).

There were multiple references to the strategic importance of CPD for all teachers as a vehicle to not only achieve short-term goals for teacher learning; but also foster a school culture that cultivates positive attitudes towards educational change. Furthermore, there was an understanding of effective CPD as that which consists of a wide range of forms and structures; is flexible in its delivery and duration; and has multiple contents in order to meet all teachers' needs. Indeed, particular attention was drawn to the need for a systematic needs analysis. Μαυρογιώργος (1996) suggested:

A national framework is needed that explores, analyses, and records teachers' needs and which will inform the design and implementation of a wide range of CPD programmes according to the basic principles outlined above (p. 13).

Furthermore, there was recognition of the need for policy makers and professional developers to 'dialogue' with the teachers in order to develop an in-depth understanding of their needs; rather than rely on teachers' self-reported, perceived needs.

The years following this key policy document (i.e. 1996-2000), a number of *mandatory* and *optional* training programmes were implemented in PEK for those teachers with more than five years of teaching experience. The aim was to support teachers to renew and update their knowledge and practice, to implement successfully curriculum changes and to support them to be competent professionals (Εφημερίς της Κυβερνήσεως, 2002α). These programmes were twenty to forty hours duration each, and extended over a period of 3-6 months. An examination of policy documents (Εφημερίς της Κυβερνήσεως, 2002α) revealed that model teaching and formal lectures were the most common training techniques employed in these courses. Therefore, it could be argued that the quest for multiple forms of, and flexibility in,

delivery has not been met. The CPD content included general pedagogical issues, pedagogical content knowledge, issues of evaluation and assessment and intercultural educational issues. It should be noted, however, that in order to attend the programme of their choice, it was a requirement that teachers had not participated in any other structured professional development activities during the previous five years. This raises questions about the ways in which sustained and progressive teacher learning could be supported. Furthermore, a lottery system was employed in those cases where too many teachers were interested in the same programme.

Despite affording a degree of choice and variety to teachers, for the teachers' union association this CPD model is failing for 4 main reasons: first, the CPD spectrum on offer is limited; second, the CPD topics are not always designed to address the issues and concerns the educational community has identified as fundamental; third, the available CPD opportunities are not based on a systematic examination of teachers' professional learning needs; and finally, CPD provision is 'ad hoc' rather than systematic. Furthermore, at the time of the research, CPD for experienced teachers was not systematic in PEK. Professional development opportunities in Greece may also be provided by the following institutions (Kalliabetosu-Koraka, 1996, p. 212); yet it is very difficult to map the terrain of such a provision:

- Higher Education Institutes (Universities/ AEI) (by members of the academic staff)
- The Institutions of Technological Education (TEI) (by members of the academic teaching staff of the institution)
- The College of In-Service Training of Technical and Vocational Teachers (SELETE), which provides pedagogical and technological training and in-service for teachers of Technical and Vocational Education
- The Pedagogical Institute (by school advisors attached to the Institute and in collaboration with the Regional Training Centers)
- The Marasleio Teacher Training College in Athens (by highly qualified lecturers) for the Special needs school teachers
- The School Unit (by the school's head teacher and the school advisers).

Professional development activities for teachers can be carried out in the form of conferences, seminars, or short courses. However, in most of the above

cases (except for the last case that will be discussed later) and similar to many other countries, it appears that teacher learning in Greece is seen as a process of periodic 'staff development' whereby teachers are brought together to receive the latest information about the most effective teaching processes and techniques (Cochran-Smith & Lytle, 2001). Yet globally, as was discussed earlier, this 'traditional' form of professional development is criticized on the grounds that it fails to provide teachers with opportunities to link the knowledge they have learned in these courses to existing practice (Armour & Yelling, 2004; Garet et al., 2001; Stein et al., 1999).

The notion of school-based professional learning is not uncommon in Greece. Recognition of the schools as contributing to and supporting effective teacher development was established in 1989 (Psycharis, 2002). This policy delegated significant power to individual schools and their teachers. Psycharis (2002) explained:

In-school training has as a starting point the needs of the teachers and aims to motivate teachers to reflect into their context and their practice in order to set priorities as regards their training (p. 2).

School-based professional development is also encouraged in policy documents which recognise that school advisors – as part of their roles and responsibilities - must undertake a multifaceted and challenging role within the school unit. According to official policy documents (Εφημερίς της Κυβερνήσεως, 2002c), school advisors have the responsibility to provide guidance and support to teachers and take an active role in the evaluation (informal) and professional development of teachers (i.e. observe teaching units and provide feedback to the teachers, discuss with them an array of pedagogical and organizational issues, organize seminars and model teaching sessions, and promote school-based research). In the same policy document, it is also made clear that school advisors need to co-operate with school staff in the planning of school programmes in order to ensure that teachers have time to meet and discuss, and work on other important issues.

2.2.5 The Current Situation....From the Public's Perspective

The inability of the existing CPD system in Greece to provide ongoing, sustained, and high quality professional development for all teachers has been graphically illustrated in some of the newspapers' headlines:

Teachers' CPD and evaluation: a joke (ο κόσμος του επενδυτή, 6/1/06)

CPD for teachers on delay again (Το βήμα, 20/11/02)

Teacher CPD gets nil (Κυριακάτικη ελευθεροτυπία, 10/4/99)

Teachers say: we do not rely on PEK (Κυριακάτικη, 26/4/98).

In 2006, a Greek newspaper drew attention to recently emerged policies on CPD and teacher evaluation that have been 'rapidly and incautiously developed in order to secure European funding'; and denounced a huge gap between policy development and implementation. In fact, they claimed that many of these policies have never been implemented (Ο κόσμος του επενδυτή, 6/1/06). In the same article, there was reference to a worrying gap between government appraisals of policy implementations and what was actually being implemented in practice. In that framework, concerns were raised about the quality of education. The political demand for *more* and *better* teacher professional development has been voiced several times by representatives of the national teachers' union association and academics (Παπακωστούλα-Γιανναρά, year unknown) in various contexts.

However, it seems that more recently, there are some small positive steps towards better CPD provision. In between 2002 and 2007, OEPEK has been mainly responsible for developing guidelines for the implementation of the induction programme. In 2007, OEPEK expanded its role announcing the design and delivery of two CPD programmes for a total of eleven thousand teachers (both primary and secondary teachers) on 'Contemporary Teaching Approaches to Developing Critical and Creative Thinking' and 'Relating the family – Social – Cultural Environment to Children's Performance at School', to be implemented in the period 2007-2009. Furthermore, OEPEK announced

20 research projects in order to inform future educational policy and practice. Working groups are expected to identify teachers' 'training' needs in all sectors of the educational system; and to explore – and learn from - CPD approaches adopted in other European countries. Despite these significant steps towards a research-driven CPD system, at the time of the research, research on CPD was limited and PE-CPD research was practically non-existent. In this contemporary context, where the teaching profession appears to be central to wider learning goals, the nature and effectiveness of teachers' professional learning is, of itself, worthy of scrutiny.

2.3 Theories of Teacher Learning

In the previous section, an overview of both the Greek educational system and CPD structures was provided. CPD policies and practices have been outlined in order to provide background information on the research participants' views and experiences. In this section, an overview of theoretical perspectives on learning is provided in order to provide a strong theoretical basis for exploring the research participants' CPD experiences and understanding their reflections on the complex process of professional learning. It is argued in this thesis that all theories have the potential to provide important scientific knowledge and understanding. However, in this section, particular importance is placed on constructivist and socio-cultural (situative) approaches to learning because it has been argued that they can provide a powerful framework for understanding and studying teacher professional development and professional learning (Borko, 2004; Peressini et al., 2004; Putnam & Borko, 2000). Indeed, situative approaches to learning appear to underpin not only existing theorizing on effective CPD but also much of the empirical work in the international CPD literature.

2.3.1 A Brief Overview of Key Learning Theories

This section begins with an attempt to unpack how learning is conceptualized within the tenets of different theoretical orientations. It has been argued that 'learning' is a vast concept, so it is unsurprising to find professional learning

difficult to conceptualise (Armour et al., 2008). As Colley et al. (2003) argue, each theory views learning in different ways and assumes different meanings of the term. Sfard (1998) argued that there are two basic metaphors that appear to have underpinned current conceptualizations; namely, 'learning as acquisition' and 'learning as participation'. Hager (2005) elaborated on a third metaphor, namely 'learning as construction'. It has been argued that the distinction between these metaphors is fundamentally ontological in relation to where knowledge, learning and cognition are located (Cobb, 1994; Vosniadou, 2007). The acquisition metaphor locates knowledge in the minds of individuals and assumes that it can be acquired, developed and changed.

The metaphor that explains learning as construction moves slightly from this position and acknowledges the importance of the nature of learners' engagement in the process. The participation metaphor locates knowledge and learning in the social context; drawing attention to the location/ context where learning takes place (Hodkinson et al., 2008) and focusing on complex social, interactive systems (Greeno et al., 1998), social entities (Solomon & Pekrins, 1998) or communities of practice (Wenger, 1998). From this perspective, the fundamental argument is that the context and the activity (practice) in which learners engage have a significant influence on what and how individuals or groups of individuals learn and construct understandings. These metaphors, along with theories of learning that represent them are now discussed in turn.

2.3.2 Behaviourism and Cognitivism

Learning theories rooted in behaviourism and cognitivism represent the 'learning as acquisition' metaphor - or what has been called, the 'standard paradigm of learning' (Lee et al., 2004) - and tend to suggest that learning is:

an individual process, that it has a beginning and an end, that it is best separated from the rest of our activities and it is the result of teaching (Wenger, 1998, p.3).

The earliest of the psychological theories of learning is behaviourism, which focuses on the study of overt behaviours that can be objectively observed and measured, without referring to internal and more complex mental processes. It has been argued that only those things that can be observed directly are scientifically relevant. In this context, learning is seen as a straightforward mechanism - the result of a behavioural response to some form of stimulus (Atherton, 2003a; Cheetham & Chivers, 2001). Behaviourism is primarily associated with the Russian physiologist Pavlov (1927) who is best known for his work on classical conditioning, and the advanced work of Skinner (1938) on operant conditioning. In short, Pavlov demonstrated how animals changed their behaviour as a response to external stimuli. Hence, from the behaviouristic perspective, learning is more likely to occur when continuous repetition of behaviour as a response to a particular stimulus is involved. Applying similar principles to human behaviour, Skinner supported the stimulus-response model, but added the notion of 'reinforcement' after the desired behaviour as a fundamental and central principle of learning (Cheetham & Chivers, 2001). Reinforcement can be used to 'shape' behaviour (Cheetham & Chivers, 2001) and, ultimately, increase learning. Therefore, behaviourism highlights learning as an observable, measurable change, and views the learners as recipients of external stimulation (Kivinen & Ristela, 2003). Harris (2000) pointed out that this is an 'outside-in' view of learning. It has been argued that behaviourism has had clear implications for teachers' practices and has led to individualistic and deductive pedagogy, in which the teacher is viewed as the transmitter of knowledge (Nicholls, 1997).

Until the 1960s, behaviourism was the dominant approach to learning. However, around that period, a revolution took place in the ways psychologists studied human learning. It gradually became apparent that learning is a much more complex process than a simple change in observable behavior (Atherton, 2003a). Subjecting behaviourist principles and assumptions to intense criticism, cognitive scientists attempted to open the 'black box' (the human mind) and promote learning as a meaning-making process inside the head of individual learners (Palinscal, 1998). They primarily sought to explore what mental processes (e.g. perception, attention, memory,

reasoning, language) are taking place inside the head of the learner during the learning process and define learning in terms of conceptual growth. In particular, cognitive scientists look at the way people absorb information from their environment (sensory input), sort it mentally (how new information is processed and organized) and apply it in everyday activities (Cheetham & Chivers, 2001; Ford & Forman, 2006; Greeno et al., 1998; Harris, 2000). From a cognitive perspective, learning is again linear, and Harris (2000) explained the process as follows:

The tools for learning are individuals' existing cognitive structures or 'schematas'. As new sensory input is gained, existing structures/ schemata undergo modification. The key to successful learning therefore lies in the quality of the processing that occurs between the short-term and long-term memory (p. 2).

Like behaviourism, the epistemological assumption that underpins cognitive perspectives is that knowledge is something that exists independently of the knower (Sfard, 1998). Therefore, both behaviourism and cognitivism are primarily concerned with the *acquisition* of a known commodity (Hodkinson, 2007; Hodkinson et al., 2007) - be that, knowledge, skills, attitudes, behaviours, understandings or something else. It is believed that the acquisition metaphor has been influential in education and Ford & Forman (2006) believe this has been so because these theories 'provide clear ways for teachers, curriculum designers, and testers to organize [and evaluate] their work around well-defined learning objectives' (p. 2). However, both behaviourism and cognitivism have been subjected to intense criticism because they view learning as primarily concerned with putting 'stuff' into the learners' minds which are understood as empty vessels (Bereiter, 2002).

Nicholls (1997) argued that both behaviourism and cognitivism formed the basis for defining education, and teacher education, as a process of transmitting knowledge, from the expert to an unsophisticated learner. Making the link with the present study, this type of instruction can be found in the 'traditional' professional development opportunities available to teachers, most of which are one-day, off-site activities designed by 'experts' with the goal to transmit the latest knowledge (Armour & Yelling, 2004; Duncombe &

Armour, 2004). Hodkinson et al. (2007) stressed that a fundamental problem with 'learning as acquisition' is that this metaphor separates out the learner, the process of learning and the product which is learned. In this framework, it is believed that constructivism has emerged partly as a reaction against the transmission model. Atherton (2003b) drew the line between these three learning approaches providing a helpful clarification:

If behaviourism treats the organism as a black box, cognitive theory recognizes the importance of the mind in making sense of the material with which it is presented. Nevertheless, it still presupposes that the role of the learner is primarily to assimilate [and make sense] whatever the teacher presents. Constructivism- in its social forms- suggests that the learner is much more actively involved in a joint enterprise with the teacher (and other students) of creating new meanings.

2.3.3 Constructivism

Constructivism has been associated with the metaphor of learning as a construction and is primarily concerned with the ways in which individual learners *engage* with new knowledge (Hodkinson, 2007). Under the umbrella term of 'constructivism', there are different perspectives and a range of assumptions about what the terms constructivism and construction mean. Kivinen & Ristela (2003) identify an impressive collection of different kinds of constructivist 'versions'; ranging from radical constructivism to feminist constructivism. Within that broad theoretical framework, this section focuses on two strands of constructivism that are relevant to education and the present research: Cognitive constructivism and Social constructivism. Cognitive constructivism is first and foremost about how individual learners construct knowledge and meanings; and its roots can be traced back to the work of Piaget. Social constructivism is concerned with the construction of human knowledge and understanding through social interaction, and its roots can be traced back to the work of Vygotsky. It is believed that it was Vygotsky who first clearly articulated the position that 'knowledge is socially constructed' (Ford & Forman, 2006).

i. Cognitive Constructivism

Both cognitive and social constructivism approaches share the following fundamental principles/ assumptions about the nature of human learning. Learning is an active process; involves construction of meanings and understandings; is situated in specific contexts, and is influenced by prior knowledge and beliefs. Learning from a constructivist perspective is an active, ongoing process where learners reflect upon their current and past knowledge and experiences to generate new ideas and concepts (Harris, 2000; Imants, 2002; Newman, 1994). Piaget, although fundamentally a cognitive psychologist, is considered one of the founders of cognitive constructivism. Buell (2003) pointed out that Piaget is renowned for constructing a highly influential model of child development, where the emphasis is placed on the active role of the individual in learning. Piaget demonstrated empirically that children's minds were not empty, but actively processed the material with which they were presented through the processes of accommodation and assimilation (Atherton, 2003b). However, Piaget moved further and acknowledged the critical role of experience in learning. He argued that children cannot learn by simply absorbing information without first having an experience of the knowledge they are receiving (Duncombe & Armour, 2004).

Constructivist theorists stress that human learning is 'active' in the sense that knowledge is actively processed and acquired. In other words, the learner must do certain things while engaged in the learning process. Learning, it is argued, is more likely to occur through experience rather than by didactic presentation of bodies of knowledge. So, constructivism focuses on learning as a process, but does not examine the process that occurs in the human mind, as cognitivist theorists do. Rather, constructivism is concerned with how people are engaged in the learning process and construct understandings. From this perspective, learning is more likely to occur when learners have access to a range of experiences and have opportunities to make connections with, understand and explain their lived experiences. In that context, constructivism stresses the importance of 'authentic' experiences rather than decontextualised or abstract delivery of concepts of skills.

In relation to CPD, this perspective suggests that off-school CPD experiences need to be designed in ways that enable teachers to be active learners, bringing aspects of their professional lives in the CPD context, and engaging in construction or reconstruction of meanings and practices. In this way, the CPD purpose is to engage teachers with ways of thinking about how to develop effective learning experiences for pupils. In that context, as Loughran & Gunstone (1997) pointed out, 'teachers' learning is not something that can be 'delivered', rather it should be about 'working with', not doing to teachers' (p. 161). Another point emerging from constructivism, and clearly linked with teacher learning and development, is the notion of teacher reflection (Schon, 1983), where teachers are encouraged to generate and/ or construct theories based on their practice (Attard & Armour, 2006; Day 1999b; Leitch & Day, 2000) and engage in 'transformative' learning (Mezirow, 1997; 1996; 1994; 1991; 1981).

Davis and Sumara (2003) made an observation that is useful for this study. They argued that learning from a constructivist perspective is about discarding and revising understandings; and a matter of continuous elaboration that involves 'construe' of interpretive systems in ways that enable a person to expand and deepen understandings. This links with Dewey's (1938) argument that 'there is no intellectual growth without some reconstruction, some remaking' (p. 64). However, Davis & Sumara (2003) also warned that the term 'construct' may connote the learning process as a deliberate, step-following process. In this sense, in order to learn, basic knowledge must be acquired before higher orders of understanding can be reached (Palinscar, 1998). This is a linear view of learning. Piaget (1970), for example, assumed that the development of knowledge is – or should be - structured and ordered in a way that some concepts are fully understood before moving into the next 'stage' of development (Parker, 1995). Certainly, some learning can and does occur in this way, but, as Parker (1995) emphasised, there is not only one way in which understanding comes about. Therefore, although the ultimate aim of learning might involve increasing capacity for certain things, the learning journey might be neither linear nor straightforward. The complexity of the learning journey is captured by Steadman (2002):

I think there is a problem with linear models when it comes to learning.... For me, [learning] is pretty much a backwards and forwards process. It's a networking thing; a construction of networks or grids. While there are always gaps in your knowledge, you can often work your way around them using the network of ideas and skills you have. And I often go back and reinforce things that other people would consider I knew fairly well (p. 4).

Similarly, reflecting on her own experiences as a teacher educator, Cochran-Smith (2003) viewed learning as encompassing 'both learning new knowledge, questions, and practices, and, at the same time, unlearning some long-held ideas, beliefs, and practices, which are often difficult to uproot' (p. 9).

ii. Social Constructivism

Solomon & Perkins (1998) argued that most learning is rarely truly individual; rather, it almost always entails some social mediation. O'Connor (1998) stressed that the notion of 'social constructivism' is multifaceted and there is no single coherent way of understanding it. Rather, she argued that a selection of writers and scholars from diverse fields have developed views and theories that attempt to address, explore and explain the many faces of social constructivism. However, it could be argued that it was the work of Vygotsky (1978) and his theory of the Zone of Proximal Development (ZPD) that formed the basis upon which the foundations of a social constructivism theory were developed.

Vygotsky (1978), a Russian psychologist, provided theoretical explanations of how and why learning occurs through social interaction. The fundamental principle of Vygotsky's theorizing is that learners can construct knowledge and understanding through the interaction with a 'facilitating agent' (e.g. teacher, tutor, parent, peer) (Solomon & Perkins, 1998). Vygotsky observed that when children were tested on tasks on their own, they rarely did as well as when they were working in collaboration with an adult or another peer who had already mastered the particular function (Atherton, 2003b). Vygotsky (1978) named this 'distance' as the Zone of Proximal Development and defined it as:

The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (p. 86).

One simple interpretation of this definition suggests that what children can do today with help, they will manage alone tomorrow (Hodson & Hodson, 1998). In Vygotsky's (1978) view, the only good learning is that which is in advance of development. It could be argued that Vygotsky's theorizing has clear implications for teaching practice, in that teachers must work on the pupils' Zone of Proximal Development and set challenging tasks in groups of diverse abilities and provide guidance and support when needed.

Salomon & Perkins (1998) drew attention to the active nature of learning in situations of group work and stressed that it is not the guidance or 'transmission' of knowledge *per se* that supports individual learning; but rather the opportunity to engage in active construction with adequate guidance and support. The notion of social 'scaffolding' has been linked to this theorizing and Bruner (1983) explained how it supports a gradual shift towards more learner independence:

One sets the game, provides a scaffold to ensure that the child's ineptitudes can be rescued by appropriate intervention, and then removes the scaffold part by part as the reciprocal structure can stand on its own (p. 60, in Hodson & Hodson, 1998).

The suggestion that individual learners benefit from social interaction is prominent in the international literature for both pupils (Palinscar, 1998) and teachers (Perkins, 1999). Ford & Forman (2006) argued that learning requires communication with 'experts' (semiotic mediation) and involves tools (physical, symbolic or both).

Lave & Wenger (1991) argued that learning, as approached by the above schools of thought, is a process by which a learner internalises knowledge, whether discovered (constructivism), transmitted from others (behaviourism and cognitivism) or experienced in interaction with others (social

constructivism). In contrast to learning as internalisation, Lave & Wenger (1991) introduced a theory of learning as a social practice, where the focus is placed on the person, 'as a person in the world' (p. 52). Thus, situated learning has emerged 'offering a challenging perspective with respect to what it means to learn and understand' (Hanks, 1991, p. 13).

2.3.4 Situated or Sociocultural Theories

The third metaphor, 'learning as participation', is embodied by socio-cultural and/ or situative theoretical approaches. Situated perspectives on learning have emerged recently to challenge established beliefs about the nature of human learning. It has been argued that conventional theories of learning, such as cognitivism, place great emphasis on individuals and their minds. They view learning as the acquisition and internalisation of knowledge and the main research focus is on the internal cognitive/ mental processes of individuals.

Situated theorists, like Lave & Wenger (1991), provide an alternative perspective on how to conceptualise and research the complex phenomenon of learning. They locate learning in social practice, as people live and participate in the social world. From this perspective, learning is not an isolated event that occurs in specific places and at specific times, and it cannot be solely captured and explored by unravelling the processes of mind. Instead, learning is a process that is part of all human activities; as we interact with each other and actively engage in a range of social practices in a historical and social context, that gives meaning to what we do (Wenger, 1998). Thus, the ability to learn, and specific learning outcomes, are not determined solely by the ability of the mind because the social context in which learning occurs might inhibit or encourage learning. In other words, situated approaches involve the examination of social systems that are recognised as much more complex and comprehensive than the behaviourist and cognitivist processes of individual learners (Greeno et al., 1998).

The nature and quality of the learning activities can also determine what and how we learn. From a situated learning perspective, therefore, as people participate in social practices, the context within which the activity takes place, the nature of the activity itself, the patterns of participation encouraged, and the individuals involved determine to a great extent what is learnt and how learning takes place (Barab & Duffy, 2000; Greeno et al., 1996). Barab & Duffy (2000) suggested that, from a situated learning perspective, both cognition and meanings are socially and culturally constructed in the context of practice or lived experiences. Greeno et al. (1998) defined a situative perspective as a process and activity that 'takes place amongst individuals, the tools and artifacts that they use, and the communities and practices in which they participate' (p. 20).

Much of the situated learning theorizing in educational settings originated in response to a growing dissatisfaction with schooling and, in particular, the problem of 'transfer'. Over recent decades, researchers and academics have criticized established school practices on the grounds that they support the development of knowledge which is abstract and cannot be used or transferred to other situations outside the school - in the 'real world' (Lave, 1993). Similar criticisms about the decontextualization of learning have been voiced in the PE field (Kirk & Kinchin, 2003; Kirk & McDonald, 1998). Critics pointed out that learning and cognition cannot be seen as individual, internal, cognitive processes but as a social activity that takes place in a complex socio-cultural world (Vosniadou, 2007). In other words, cognitive development does not occur in isolation but in specific social contexts. Therefore, situated perspectives on learning attempt to take learning and cognition outside the human mind and situate it in social and cultural settings. The two quotes below, by Lave and Wenger, the leading theorists in situated cognition, capture this fundamental redefinition of learning:

In our view, learning is not merely situated in practice - as if it were some independently reifiable process that just happened to be located somewhere; learning is an integral part of generative social practice in the lived-in world (Lave & Wenger, 1991, p. 35).

Cognition is in fact a complex social phenomenon, the point is not so much that arrangements of knowledge in the head correspond in a complicated way to the social world outside the head, but that they are socially organized in such a fashion as to be indivisible. "Cognition" observed in everyday practice is distributed - stretched over, not divided among - mind, body, activity and culturally organized settings (Lave, 1998, p. 1).

Knowledge, from this perspective, is conceptualised as being continually reconstructed through the relationships and interactions between individuals, rather than as an object which is acquired, internalised, and owned (Lee et al., 2004).

Lave & Wenger's (1991) work originated in workplace and other non-educational settings and their intentions were to explore and analyse the learning process beyond intentional instruction. For Hanks (1991), their work has been innovative because they sought to shed light on key aspects of learning experiences that had been so far overlooked. It has been argued that situated learning offers an interesting perspective on continuing professional learning because it interprets learning as an ongoing process embedded in social practice (Armour et al., 2009) and in places where it was commonly not believed to inhabit (Vasquez, 2006). Thus, Lave & Wenger's (1991) analytical focus shifts from the individual to learning as increasing participation in Communities of Practice.

To develop this discussion further, it is important to raise two fundamental questions: what is a Community of Practice (discussed in section 2.1.3) and what does it look like? It is argued in this thesis that these questions are challenging and there is still lack of robust knowledge to, conceptually, grasp a Community of Practice (CoP). The concept was initially introduced but not fully defined by Lave & Wenger (1991). A range of different definitions exist - but the short definition provided below resonates with the ways in which this concept is used and understood in the context of the present study:

Communities of Practice are groups of people who share a concern or a passion for something they do and

who interact regularly to learn how to do it better (Wenger, 1998).

Professional learning communities in the field of education have been more recently defined as:

an inclusive group of people, motivated by a shared learning vision, who support and work with each other, finding ways, inside and outside their immediate community, to enquire on their practice and together learn new and better approaches that will enhance all pupils' learning (Stoll et al., 2006, p. 5).

In short, a CoP is a persistent, sustained social network of individuals who share and develop an overlapping knowledge base, set of beliefs, values, history and experiences focused on a common practice (Barab et al., 2002). Wenger (1998) has clarified that a community of practice is not merely a club of friends or a network of connections between people. It has an identity defined by a shared domain of interest. Membership implies a commitment to the domain, which has a specialized knowledge base, shared 'ethics' about good practice and, therefore, a shared competence that distinguishes members from other people (Stoll & Louis, 2007; Wenger, 1998). Similarly, in the context of educational research, Bolam et al. (2005) found that effective professional learning communities in schools have 11 key characteristics:

shared values and vision; collective responsibility for pupils' learning; collaboration focused on learning; individual and collective professional learning; reflective professional inquiry; openness, networks and partnerships, inclusive membership, including support staff; and mutual trust, respect and support (p. 18-19).

In this respect, the notion of schools as learning communities draws attention to the 'inner strength' of the school to support change, development and innovation (Cocklin et al., 1996). From this point of view, professional development is not something undertaken solely as a traditional course delivery outside schools, but is fully integrated into the ongoing learning processes of all within the school (Cocklin et al., 1996; WestEd, 2000). Stoll & Louis (2007) argued that a professional learning community exists when teachers share and critically interrogate their practices in an ongoing,

reflective, collaborative, inclusive and learning-oriented way. O'Sullivan (2007) also stressed that a community of practice 'defines itself in doing, as members are involved in a set of relationships over time and work around things that matter to them' (p. 3).

It is also important to clarify that members do not interact just to improve their individual skills or understandings. Rather they interact and learn with the aim of improving their collective domain of interest. In this framework, activities, tasks, functions, and understandings do not exist in isolation; they are part of the individual's participation in the CoP in which they have meaning (Lave & Wenger, 1991). So, this perspective shifts understanding beyond a view of acquiring knowledge and skills as 'end in themselves'. Humans learn skills and construct deeper understandings for two purposes: 1. To move from peripheral participation towards full participation in the community; and 2. To move the community and themselves a step forward. This perspective highlights learning as encompassing an emotional commitment and the shaping not only of collective understandings but also identities (Barab & Duffy, 2000). Indeed, according to Lave (1993), developing an identity as a member of a community and becoming knowledgeable are part of the same process. There are no clear boundaries between the two. Therefore, communities are reproduced by individuals, just as much as individuals are reproduced by communities (Peressini et al., 2004). Lee et al. (2004) wrote:

Through their learning, individuals shape and transform both themselves and the social/interactional environments within which they work (p. 9).

Lave & Wenger (1991) have coined the term Legitimate Peripheral Participation as a tool to analyse and explain the kind of learning that occurs within a community of practice. Their research focus was 'newcomers' and they sought to describe how newcomers move from peripheral positions through meaningful, authentic participation to become full participants in communities of practice. Essentially, learning is a highly interactive process that involves newcomers becoming knowledgeable about and having broad access to a full range of activities within the community in order to perform new tasks and to develop new understandings (Guile & Young, 1998).

Therefore, learning can be conceptualized as a matter of enculturation into a community's way of thinking, an evolving form of membership; a way of belonging (Barab et al., 2002; Lave & Wenger, 1991). These characteristics distinguish a CoP from the notion of group work or learning through social interaction when people are temporarily coming together to solve a problem.

As noted in section 2.1.3, the notion of learning as participation in Communities of Practice has received great attention in current research literature; and it has been employed extensively in recent CPD and PE-CPD research to explain the ways in which teachers can learn in effective and sustained way (Armour & Yelling, 2007; Borko, 2004; Day, 1999a; Guskey, 2002; Spear et al., 2000; Keay, 2006; O'Sullivan, 2007; WestEd, 2000). Emerging research findings in England indicate that the presence of communities of teachers (and others) that centre on pupil learning has a significant impact on pupil achievement (Bolam et al., 2005). In the PE domain, evidence from research in the USA suggests that 'when teachers collaborate in such communities they are more willing to take risks, reflect on their failures and share successful programmes and practices' (O'Sullivan, 2007, p. 6). However, it is also recognized that there are a number of struggles in these researchers' efforts to try to introduce, develop and sustain communities of teachers. These issues will be discussed in section 5.3.

2.3.5 Theories of Learning in Relation to the Present Study

There has been an ongoing debate on the fundamental or 'paradigmatic' differences between cognitive and situative or socio-cultural theoretical positions on learners (Alexander, 2007; Anderson et al., 1996, 1997); and some parallel efforts to bring cognitive and situative perspectives closer together (Greeno et al., 1998; Greeno & Van de Sande, 2007; Murphy, 2007; Vosniadou, 2007). While Alexander (2007) claimed that 'efforts to bridge the cognitive and sociocultural orientationsare either unnecessary or unachievable' (p. 67), in the same special issue of *Educational Psychologist*, Murphy (2007) argued that merging the two is vital because both perspectives have valuable insights to offer:

While socio-cultural perspectives point to social experience as the principal sources of knowledge, cognitive perspectives emphasize the importance of the individual mind and reasoning as the primary sources of knowledge. Herein, I argue that both sociocultural and cognitive influences are critical catalysts in conceptual change and that integration of these components is vital to learning (p. 41).

One of the fundamental characteristics distinguishing situative perspectives from the more 'traditional' theoretical approaches to learning (i.e. behaviourism and cognitivism) is the unit of analysis (Borko, 2004; Peressini et al., 2004). On the one hand, the traditional approaches focus on individual minds ('cognitivism') and individual behaviours ('behaviourism') and treat the social environment as simply the context within which individual behaviour occurs (Greeno et al., 1998). On the other hand, situative approaches focus on complex interactive systems (Greeno et al., 1998) and emphasize the importance of the context and the activity (practice) on what and how individuals learn and how groups of learners construct a collective understanding of the learning system. It is important to note that both cognitive and situated learning theorists acknowledge the influence of both the context and the individual agency in the learning process. However, it has been argued that both have failed to incorporate these two fundamental elements in their research designs (Hodkinson et al., 2008; 2007). In other words, there is a tendency to marginalize context over agency and agency over context, correspondingly. Hodkinson et al. (2008) identified this as a significant gap in existing theorizing and added:

There is valuable and significant existing theoretical work that addresses many of these issues separately, but nothing that effectively integrates them all (p. 28).

In the light of this insight, there is a recent trend to understand and conceptualise learning as a process of 'becoming', blending learning as participation with learning as an embodied construction (Hodkinson, 2007). As will be illustrated in section 5.2, the findings of the present study have further reinforced the need to examine not only contextual influences upon teacher

learning but also personal factors that affect, both positively and negatively, teachers' ability to learn.

Chapter 3: Methodology

A number of theoretical issues relevant to the present study were described in the previous chapter. In this chapter, the intention is to inform the reader about the methods and the procedures adopted to this research study in order to answer the research questions. The chapter is organised as follows:

- 3.1 Introduction
- 3.2 Research paradigms
- 3.3 Qualitative research
- 3.4 Research design
- 3.5 Case study research
- 3.6 Interviewing as the principle method for data collection
- 3.7 Open-ended profile questionnaires
- 3.8 Data analysis
- 3.9 Quality in qualitative research
- 3.10 Some ethical issues

3.1 Introduction

This chapter begins with a broad definition of research used by the Higher Education Funding Council of England (HEFCE): research is “an original investigation undertaken in order to gain knowledge and understanding” (cited in Mortimore, 2000, p. 11). Quoting Nelson et al. (1987), Cupchik (2001) argued that research is “a kind of *action* engaged in by researchers in the process of generating knowledge” (p. 3). Undoubtedly, there are many different kinds or forms of research. The Higher Education Funding Council of England divides research into three categories: basic research, which aims to acquire new knowledge of the phenomena under study without any particular application or use; applied research, which refers to any original investigation undertaken to acquire new knowledge but directed primarily towards a specific practice aim or objective; and experimental development that has a practical purpose of producing new materials, products or devices by drawing upon the existing research knowledge base.

The present study can be characterised as education, applied research. It is education because it explores an educational process - that is formal and informal professional learning and Continuing Professional Development - and it is focused on teachers and CPD stakeholders who are key players in all educational systems. This study is also applied. It has been argued that applied research links research with action in order to generate what Hargreaves (1996) called, 'actionable knowledge'; that is, knowledge that can be used by practitioners to inform and enrich their practice. There has been a lot of debate in the educational community around this and related concepts and while some researchers vigorously support this idea (Burkhardt & Schoenfeld, 2003; Cordingley, 2008; Hemsley-Brown & Sharp, 2003; McIntyre, 2005; Nutley et al., 2008; Pollard, 2008), others are cautious about the extent to which research can contribute to improving the quality of education (Elliott, 2001).

It is important to clarify that, in the context of the present study, applied research is understood as the kind of research that is accessible to practitioners, in terms of the language, the form, and the location; but also relevant to their needs and interests. In order to be relevant, researchers have to address the questions raised by practitioners, schools, policy makers, funders and other researchers (Armour et al., 2009). The present study was designed with the aim of making a difference to the lives of 'practitioners'; including teachers, CPD providers and policy makers. It is also important to clarify that applied research is not viewed as a deterministic process of finding out 'what works' (Clark, 2005) and producing check-lists that practitioners should adhere to or follow blindly. Rather, it has been argued that high quality applied research offers information, analysis and insights that support practitioners to engage in critical and sustained investigation of practice (Cordingley & Saunders, 2002). This is what Nutley et al. (2008) called the interactive perspective; one that views research findings as a basis for discussion and lenses through which practitioners can examine and challenge their practice.

3.2 Research Paradigms

Research in education, physical education and sport is multifaceted and there are a number of different, yet equally legitimate, 'paradigms', each one of which is valued in different contexts and for different purposes (Wellington, 2000; Whitty, 2006). The four paradigms examined in this section are positivism, postpositivism, critical theory and (social) constructivism. It has been argued that research paradigms represent 'a distillation of what we think about the world' (Lincoln & Guba, 1985, p. 15); and 'the basic belief system or worldview that guides the investigator' (Guba & Lincoln, 1994, p. 105). Patton (1978) defined a paradigm as:

A world view, a general perspective, a way of breaking down the complexity of the real world. As such, paradigms are deeply embedded in the socialisation of adherents and practitioners: paradigms tell us what is important, legitimate and reasonable (p. 203).

However, like many other concepts, research paradigms are not uncontested. Whilst it is believed that paradigms are powerful in providing researchers with a clear structure and framework in order to proceed in their study (Guba & Lincoln, 1994), it has also been argued that rigid adherence to a research paradigm might encourage researchers to take fundamental assumptions for granted (Patton, 1978) and prevent them from learning from other researchers working within apparently contrasting research paradigms/ perspectives (Bailey, 2007). Being aware of such limitations, the following section aims to provide a brief description and critique of the four central paradigms that dominate education research endeavours and provide a rationale for the choice(s) made in the present study.

3.2.1 Positivism

For some researchers (e.g. Lincoln & Guba, 2000), the distinction between research paradigms is fundamentally rooted in diverse assumptions about how researchers engage with and understand the (social) world/ reality (ontology). For example, researchers from a positivist doctrine seek to develop 'objective' knowledge of a single comprehensible reality that exists

'out there' ready to be discovered or excavated (Blaikie, 1993; Denzin & Lincoln, 1994; Guba & Lincoln, 1994; Healy & Perry, 2000; Mason, 2002a). In order to develop this kind of knowledge (its epistemology), researchers claim objectivity and independence in the research inquiry. In other words, they support the view that they must separate themselves from the object of study and seek to control or predict variables in order to offer clear cause-effect explanations of phenomena (Cupchik, 2001). The past 30 years or so have witnessed a great deal of debate over the extent to which the positivist research paradigm 'fits' educational purposes and educational research (Blaikie, 1993; Hargreaves, 2000; 1999). Wellington (2000) argued that the process of offering clear cause-effect relationships (i.e. if X then Y, or X will cause Y) is challenging, if ever, possible given the complexity of the social world and social relationships. It has also been argued that a positivist view is inappropriate in the field of education which involves humans and their real-life experiences. Therefore, given the research questions and taking into account these arguments, it was decided that the positivist paradigm would not be appropriate for this study.

3.2.2 Post-Positivism

The remaining three paradigms examined, namely postpositivism, critical theory and constructivism share a common assumption about the socially constructed nature of reality, but they differ in the degree to which they accept the existence of *one* or *multiple* constructed realities. The second paradigm examined, postpositivism, assumes the existence of an external reality which, although born of people's minds (thus constructed), exists independently of any one person (Popper, in Healy & Perry, 2000). Contrary to positivism, the fundamental assumption is that this reality can only be 'imperfectly apprehendable' because of humans' limited intellectual capacity (Guba & Lincoln, 1994, p. 110). The aim of the researcher, in this context, is to explore individual perceptions, views and experiences as a means to reach and understand the reality beyond those perceptions (Healy & Perry, 2000). Thus, realism relies on multiple perspectives in order to approach a single reality

and as such was inappropriate for the present study which sought to explore and interpret the research participants' multiple constructed realities.

3.2.3 Critical Theory

The third paradigm discussed, critical theory, assumes the existence of multiple realities that are situated in historical, social, and cultural structures. In addition to exploring individual perceptions and points of view, the researcher from this perspective has a powerful emancipatory role in employing the research process as a vehicle to elicit, liberate and transform research participants from their historical, cultural and social constraints, injustices or misunderstandings (Guba & Lincoln, 1994). This means that if researchers find inequality, they are bound to do something about changing it for those researched:

The transactional nature of inquiry requires a dialogue between the investigator and the subjects of the inquiry; that dialogue must be dialectical in nature to transform ignorance and misapprehensions into more informed consciousness (Guba & Lincoln, 1994, p. 110).

The decision was taken that this paradigm was also inappropriate as a framework because the present study aimed at an interpretive understanding of the experiences, actions and views of the research participants. However, despite the fact that the research participants were unlikely to see any direct changes in CPD structures and processes as a result of their participation, it could be argued that the research has a critical edge in that it seeks to change practice more widely.

3.2.4 Social Constructivism

Finally, social constructivism is a theoretical framework that assumes multiple socially constructed realities - i.e. that individuals and groups are deeply involved in constructing the social reality of which they are a part. Therefore, social constructivism holds that there is no one single reality; instead there are multiple truths that are situated in specific contexts and particular belief systems (Healy & Perry, 2000). In this context, the aim of the constructivist

researcher is 'not to establish the 'truth' or to describe what 'really' is happening, but to reveal the different truths and realities – constructions - held by different individuals and groups' (Stringer, 1996, p. 41); in other words, to construct an in-depth understanding of individual perceptions *in interaction with the research participants*. Denzin & Lincoln (1994) wrote:

The constructivist paradigm assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and subject create understandings) and a naturalistic (in the natural world) set of methodological procedures (p. 14).

It could be argued that the social constructivist perspective provided the most appropriate framework within which to locate the present study, because it is based on the fundamental assumption that people hold multiple (and diverse) knowledge, views, understandings, interpretations, experiences and interactions (Crotty, 1998) which constitute meaningful properties of the social reality (Mason, 2002b). From this perspective and in relation to the present study, the role of the researcher is to capture, explore, and understand these multiple assumptions in order to inform the nature and quality of current and future PE-CPD provision in Greece. This study also lies within the interpretative tradition of qualitative research, meaning that it seeks to understand and represent (as faithfully as possible) the views of those researched as understood at the time of the research engagement.

3.2.5 Fit for Purpose

It has been argued that researchers' 'ontology' - their held views, ideas, assumptions or beliefs about the nature of reality - provides them with the framework for raising questions (epistemology) that they then examine in specific ways (methodology, analysis) (Denzin & Lincoln, 2005). This view is also reflected in the notion of 'fit for purpose'; when researchers are encouraged to select from the full range of available techniques or methods in order to address in the most appropriate way the problem they are investigating (Hammersley, 2003). Gillham (2000) argued: 'You use the methods (and therefore the underlying philosophy) which are best suited to what you are trying to find out' (p. 5-6). Therefore, the fit between theory,

methods and data, as well as the justification of the research procedures, is a crucial element of research quality (Anguinaldo, 2004).

Retrospectively, however, it is clear that any assumptions made about a linear movement from clarifying existing beliefs about the nature of reality, to framing research questions and then, as a result, selecting appropriate methods, would not be an accurate description of how the present research was done. There were three factors that simultaneously and interactively led to the adoption of the approach employed here: a strong belief on giving voice to teachers and capturing their points of view (ontology); an interest in qualitative research methods that encourage researchers to seek deep understandings of the complexity of social contexts and personal opinions with the aim to reveal multiple meanings and multiple realities (Sparkes, 2002); and a knowledge that, despite its significance, this kind of research is lacking in the Greek context. Therefore, the way these decisions were made was not linear but rather interactive; and, the decision to employ qualitative methodology was a complex, yet not accidental, set of processes.

3.3 Qualitative Research

Qualitative research has a long history and, for this reason, Denzin & Lincoln (2005) explained that this type of research might mean different things to different people. It has also been argued that within the umbrella term of qualitative research, there is an immensely diverse set of practices, and a wide range of traditions, from which qualitative researchers can draw (Seale et al., 2004). These include phenomenology, ethnomethodology, ethnography, interpretative, hermeneutics, symbolic interaction, critical theory, feminist inquiry, to name a few (Patton, 2000). Denzin & Lincoln (2005) wrote: there are indeed 'separate and detailed literatures on the many methods and approaches that fall under the category of qualitative research' (p. 2).

3.3.1 Critique of Quantitative Research

Qualitative research inquiry began to gain wide acceptance, at least in the field of educational research, in the early 1970s. During period, some of the

first educational qualitative researchers prompted an awareness of the deficiencies of conventional research approaches (e.g. experimental, quasi-experimental, correlational, quantitative), which, historically, had dominated the field of social and education research (Bryman, 2004; Guba & Lincoln, 1994; Schwandt, 2000). The factors underlying this increasing scepticism were various. In brief, it has been argued that quantitative researchers over-rely on exclusionary research designs (i.e. exclude important variables in order to achieve greater theoretical rigour) with questionable applicability or generalisability in contexts other than the ones explored (Guba & Lincoln, 1994). Furthermore, an important critique was that quantification fails to provide adequate insights into the social and contextual complexity of educational processes (Greenbank, 2003). In addition, there seemed to be a subsequent lack of meaning or relevance to individual cases; and neglect of individuals' meanings and perspectives in favour of broader generalisations (Guba & Lincoln, 1994). In sharp contrast, qualitative research is believed to focus on understanding particulars rather than generalising to universals with the aim of shedding new light, developing insights, interpreting varied views and capturing the social world in its complexity.

3.3.2 Interpretive Approach

The present study adopts an interpretive approach to qualitative inquiry and within this perspective, personal experiences and meanings of the researched lie at the very heart of the research endeavour. According to Schwandt (2000), qualitative, interpretative researchers 'share the goal of understanding the complex world of lived experience from the point of view of those who live it' (p. 118) and, thus, they must engage in an active interpretation of research participants' views and experiences. For Denzin & Lincoln (2005), all forms of qualitative research are fundamentally interpretive in nature; and defined qualitative research as 'a situated activity that locates the observer in the world', drawing upon a range of methods (e.g. fieldnotes, interviews, conversations, photographs, recordings, memos to the self) in natural settings with the aim to 'make sense of, or interpret, phenomena in terms of the meanings people bring to them' (p. 3). Similarly, Bryman (2004), Schwandt

(2000) and Kirk & Miller (1986) explained that qualitative research involves sustained interaction with social actors - the people being studied - and their experiences as they are lived and felt by them, in their one language. In the field of CPD and PE-CPD, until relatively recently, teachers' concerns, views and experiences of CPD and professional learning have received relatively little attention in the international research literature (Armour, 2006; Armour & Yelling, 2004; O'Sullivan, 2006b). Therefore, the present study sought to examine the nature of Greek PE teachers' engagement in professional learning in various contexts in order to shed new light on a complex issue and fill in a gap in the Greek literature.

Having located the present research within the general framework of qualitative, interpretive and social constructivist research, the following section discusses the research design employed; namely, the ways the three main research questions were explored and the rationale underpinning this endeavour.

3.4 Research Design

In this section, an overview of the research design is provided followed by a more detailed examination of the research instruments employed. As previously reported (chapter 1), the present study had three main research questions:

- iv. How do Greek PE teachers perceive they learn about teaching?
- v. What do Greek PE teachers and CPD stakeholders believe about the nature and quality of existing PE-CPD provision?
- vi. What are the features of effective CPD and PE-CPD according to PE teachers and CPD stakeholders?

This study sought to build upon recent CPD and PE-CPD research to consider ways Greek PE teachers can be supported to learn effectively throughout their careers. The research design was based on an argument proposed by Borko (2004): that an understanding of the professional development and teacher learning processes must be based on a thorough analysis of all elements of a professional development system, namely the

professional development programmes or system; the teachers, who are learners in the system; the tutor/ facilitator/ professional developers who lead or direct teachers' CPD experiences; and the context in which the professional development occurs (p. 4). Almost thirty years ago, Joyce (1980) drew attention to something similar; the importance of studying continuing professional development as a system, consisting of four fundamental dimensions: *The Governance System* (decision-making structures); *The Substantive System* (the content and process of the CPD activity); *The Delivery System* (incentives) and; *The Modal System* (forms of CPD). What was stressed in this early paper was that researchers should seek to investigate all four dimensions in order to develop a comprehensive understanding of the nature of professional development opportunities available to teachers. It was also highlighted that each dimension interacts with the others, and they all play a crucial role in the overall outcome of the learning experience. Therefore, CPD effectiveness depends on the quality, and the nature of the interaction between, these dimensions.

In the light of these theoretical insights, it was, therefore, perceived to be of fundamental importance to investigate the second and third research questions (that is, the nature and quality of existing, and perceived effectiveness of future, PE-CPD provision) from the vantage point of both PE teachers and CPD providers; as well as developing sufficient understanding of the context within which CPD takes place. The present study also sought to gain insights into the complex process of teacher learning (first research question) as experienced by these teachers both within the boundaries of formal/ non-formal CPD structures and in the context of their everyday work and lives. Therefore, the present study was conducted in three overlapping phases:

- PHASE ONE: In-depth, individual case studies with PE teachers (January 2005 – December 2006);
- PHASE TWO: Open-ended profile questionnaire for a number of PE teachers in the same area (October 2005 – April 2006);

- PHASE THREE: Individual interviews with key CPD stakeholders (September 2005 – September 2006).

Both the rationale for each data collection method and the sampling method employed for selecting the research participants are explained in the following sections. The discussion continues with the rationale for conducting case studies with PE teachers.

3.5 Phase One: Case Study Research

The bulk of this research has been conducted within a case study framework. This decision to conduct teacher case studies was rooted in the purpose of the study; i.e. to develop an in-depth understanding of their views and experiences in relation to CPD and teacher learning processes. It has been argued that case studies, as a methodological tool, offer the potential of gaining access to deeper insights about contexts, situations and experiences (Eisenhardt, 1989; Sturman, 1999).

3.5.1 What is a Case Study?

The term 'case study' is employed to identify *a specific form of inquiry* with a central focus on analyzing a case or a group of cases. Yin (1994) defined the case study as 'an empirical inquiry that investigates a contemporary phenomenon, the 'case', within its real-life context' (p. 13) in considerable depth (Hammersley & Gomm, 2000; Stake, 2000a). There are different types of case studies for different research purposes. According to Eisenhart (1989), case studies can be used to accomplish various aims, including: to provide description, to test a theory or to generate theory (p. 535). Yin (1981) used a somewhat different terminology and claimed that case studies can be exploratory, descriptive, or explanatory:

An exploratory case study...is aimed at defining the questions and hypotheses of a subsequent (not necessarily case) study.... A descriptive case study presents a complete description of a phenomenon within its context. An explanatory case study presents data bearing on cause-effect relationships- explaining which causes produced which effects (Yin, 1993, p. 5).

It is clear that the present study falls into the category of 'descriptive' case studies.

However, the crucial question in case study research that may seem trivial at first glance is: what is the 'case'? According to Yin (1994) the 'case' can be virtually anything; it can be an individual person, or a group of individuals, it can be a school or an organization; it can be a programme, an innovation, an event, a concept, a general phenomenon, or a happening (Gillham, 2000; Stake, 2005; Yin, 1994). Despite this apparent simplicity, there is still much controversy about what, precisely a case study is, and what features are within or outside the boundaries of any specific case (Lincoln & Guba, 1985; Stake, 2005; Sturman, 1999). What seems to be undisputed is that each researcher must establish and clarify what is to be studied. In the present study, the 'case' is at the individual (teacher) level. In particular, nine case study teachers from three primary and five secondary state schools in a borough of Athens were selected and follow-up visits were conducted in order to explore their CPD experiences. The selection criteria and sampling method are discussed in section 3.5.3 below.

3.5.2 Types of Case Studies

Stake (2000a; 2005) identified three types of case studies: the intrinsic case study, the instrumental case study, and the collective case study. An intrinsic case study is employed when the researcher has an inherent, intrinsic interest in, and seeks a better understanding of, a particular or unique 'case' (Stake, 2000a). Instrumental case studies are those where a case is examined with the aim of providing insights into something else (Stake, 2005); i.e. the phenomenon under investigation. In this type of research, although the case itself is of secondary interest, 'it is examined in depth, its context is scrutinized, and its ordinary activities are detailed to help the researcher to pursue the external interest' (Stake, 2000a, p. 437). Finally, multiple or collective case studies are instrumental studies extended to several cases (Stake, 2005). The researcher studies a number of cases in order to learn

from these cases about a phenomenon, population or general condition (Stake, 2005). Stake (2000a) saw these three categories as heuristic more than determinative since, as he argued, not all case studies can fit neatly into them.

Other typologies of case study have been offered (Stake, 2005). Yin (1994) categorised case studies according to the number of cases studied. Therefore, single case study involves the investigation of one case – ‘where the case represents a critical test of existing theory, where the case is a rare or unique event, or where the case represents a revelatory purpose’ (Yin, 1994, p. 3). Multiple case studies refer to the study when more than one case is examined. Clearly, despite the fact that they use different terminology, Stake and Yin’s classifications overlap to a great extent. It seems that they both acknowledge that the cases may be similar or dissimilar; and that cases are chosen to shed some light to the complex phenomenon under investigation. The present study can best be characterised as a ‘multiple’ or ‘collective’ case study since nine case study teachers participated in the study. It is acknowledged that studying a smaller number of cases would have provided greater scope for in-depth analysis of these teachers’ experiences. However, the intention was to select teachers with diverse experiences and it was decided that this number of case studies was both practical (in terms of time and resources) and defensible in terms of the range of teacher experiences covered.

3.5.3 Case Selection and Case Study Visits

Selecting case study teachers was perceived to be, initially, a straightforward process. The criteria were the following: both male and female PE teachers with a range of years of teaching experience (from being newly appointed in state schools to being close to retirement); differing commitments to teaching and to PE; and diverse PE-CPD profiles were to be selected to participate in the study. For both practical (e.g. ease of access) and theoretical (e.g. develop an in-depth understanding of the context in which these teachers

worked) purposes, a decision was made to select teachers from the same educational area in Athens.

There are two broad ways researchers can select their case studies. For some researchers, working primarily within the positivist or post-positivism paradigm, random selection of case(s) is important - on representation grounds; in order to clarify the domain of the findings (e.g. the study focuses on large organisations or experienced teachers only) and control for environmental (or other) variations. For researchers working within a social constructivist, qualitative framework, however, a random sample is neither necessary nor appropriate (Flyvbjerg, 2004) because it does not necessarily guarantee richness of information. For Stake (2005), case selection should lean towards those cases that seem to offer 'opportunities to learn', adding:

My choice would be to choose that case from which we feel we can learn the most. That may mean taking the one most accessible or the one we can spend the most time with. Potential for learning is a different and sometimes superior criterion to representativeness (p. 451).

Therefore, case study teachers were to be selected based on both their diverse experiences and years of experience; as well as their willingness to voluntarily participate in the study and dedicate their personal time to share their experiences, thoughts, views and concerns. These 'purposive' sampling criteria served theoretical rather than statistical purposes (Glaser & Strauss, 1967).

Having established the criteria, the local school advisor was approached (February 2005) in order to recommend PE teachers with these diverse experiences. Initially, ten PE teachers working in ten different secondary schools in the area were identified. When approached by the researcher, only five teachers agreed to participate in the study (*Elisabeth* – 33 years of teaching experience (YTE), *Hannah* – 20 YTE, *Margaret* – 7 YTE, *Bill* – 34 YTE and *Lea* – 15 YTE). In Elisabeth's school, another teacher, *Peter* with 33 years of teaching experience showed a strong interest to share his experiences. The remaining five teachers were not willing to participate for

three main reasons: lack of time, lack of interest in the research topic (two teachers argued that Greek PE teachers have serious problems to deal with in their everyday lives and professional learning is not their priority), and a belief that they did not have the CPD background required to share their views and experiences (despite explanations provided for the importance of having teachers with diverse CPD profiles). In February 2005, five more PE teachers from five different secondary schools (three male and 2 female with a range of years of teaching experience) were approached as a result of personal acquaintance with the researcher. For similar reasons, only two agreed to participate in the study (*Jon* – 20 YTE and *Mary* – 20 YTE). One particular case study teacher, *Mary*, was in Flyvbjerg's (2004) terms, an 'extreme' case; a PE teacher who already had a masters degree in education and was in the first year of a PhD. *Mary* was, quite clearly, not a 'typical' PE teacher and it was strongly believed that she would be able to offer an analytical account of, as well as deep insights into, the complex processes of professional learning and CPD.

The case study visits were planned to commence in March / April 2005 with the intention to undertake a series of, at least, three to four in-depth individual visits / interviews with each case study teacher over a period of one year. This structure was beneficial for three reasons: the need to build-in time, to manage and begin analysing the large amounts of data generated from each visit; the need to build and seek deeper insights from the findings of previous interviews; and the need to chart teachers' learning over a period of time. Furthermore, follow-up visits were important since the research participants had the opportunity to revise and review a draft of initial findings from previous interviews and thus ensure that the researcher's interpretations of the data were supported.

In April 2005, however, two of these teachers (*Bill* and *Lea*) withdrew from the study because of lack of time to conduct the interviews. In between March 2005 and November 2005, at least three interviews were conducted with the remaining six case study teachers at a time and place convenient to them:

- *Elisabeth*: Mar05, Apr05, Sep05, Nov05

- Peter: Mar05, Apr05, Sep05
- Margaret: Mar05, Apr05, Sep05
- Jon: Mar05, Apr05, Sep05
- Hannah: Mar05, Sep05, Nov05
- Mary: Apr05, Sep05, Nov05

Preliminary analysis of data collected from the interviews with the six teachers revealed the need to identify more case study teachers in order to add variety of experiences in the study. Furthermore, a decision was made to select PE teachers working in primary schools in order to provide greater diversity of research sites. In January 2006, the school advisor identified a further six PE teachers working in six different primary schools in the area. The intention was to identify two male PE teachers – one with less and one with more than ten years of teaching experience; and two female teachers with similar years of teaching experience. As before, only three teachers agreed to participate in the study (*Clive* – 15 YTE, *Kathy* – 5 YTE, and *Philip* – 18 YTE). As previously reported, the initial intention was to conduct at least three visits to each teacher, but this was impossible as Clive and Kathy moved to other positions and Philip had increased family commitments that made a third visit impossible. The visits conducted were as follows:

- Clive: Mar06, Sep06
- Kathy: Mar06, Apr06
- Philip: Mar06, Apr06

In between December 2005 and November 2006, three more interviews were conducted with two case study teachers from the first cohort of teachers:

- Elisabeth: Sep06, Nov06
- Margaret: Sep06

Therefore, a total of 28 individual interviews with the nine case study teachers were conducted. Details on this method of data collection are presented in section 3.6 later in this chapter. It is important to note that, initially, there was an intention to undertake informal observations of PE lessons with a dual

purpose: to acquire direct evidence of embedded knowledge PE teachers possess, and provide the starting point for a post-observation interview aiming to explore teachers' learning needs and sources of learning. However, it proved to be impossible to schedule observations with all case study teachers and the method was abandoned. Instead, during the second interview, teachers were asked to explain the fundamental elements of a 'typical' PE lesson as they experience it and then to reflect on the ways in which they believed their learning had led to this point.

3.5.4 Generalisability: Context-Dependent Information

It has been argued that case study is a powerful research tool because it is down-to-earth (Stake, 2000), and it encourages researchers to be close to real-life situations in order to understand, and provide a detailed examination of a complex issue or case (Flyvbjerg, 2004). It has been argued that this type of context-dependent knowledge is valuable (Flyvbjerg, 2004) for both researchers and readers. On the one hand, the researcher's intention is to explore new territories and generate knowledge. In this respect, concrete, context-dependent information is fundamental because it illustrates the context within which the research participants' views, perceptions and experiences acquire meaning (Bryman, 2000; Denzin & Lincoln, 2005; Flyvbjerg, 2004; Gillham, 2000):

How people behave, feel, think, can only be understood if you get to know their world and what they are trying to do in it (Gillham, 2000, p. 12).

Stake (2005) reinforced the need to provide rich descriptions of contexts, even when evidence of influence has not been found, because of an expectation that 'the reality perceived by people inside and outside the case will be social, cultural, situational, and contextual' (p. 452).

In the context of the present study, drawing upon a situated understanding of learning (see section 2.3.4), it was recognised at an early stage that it was crucial to explore and understand some of the constraints and possibilities of the research participants' contexts; the influences of wider social and

educational processes and policies upon their learning experiences and practice; as well as the social relationships in which they were involved on a day-to-day basis (Bryman, 2000; Green, 1998). Bryman (2000) argued:

The meaning that people ascribe to their own and others' behaviour has to be set in the context of the values, practices, and underlying structures of the appropriate entity (be it a school) as well as the multiple perceptions that pervade that entity (p. 64).

In the present study, therefore, knowledge of this context was necessary to understand how and why these teachers engaged (or did not engage) in professional learning. For example, as discussed in section 4.1.9, Hannah's accounts portrayed a prevailing school ethos which openly and consistently marginalized physical education in terms of the resources and facilities available. As a consequence, Hannah described how she found herself in a situation where, although she once had a desire to learn and improve, she experienced a lack of supporting structures and opportunities; and so her professional practice has remained unchallenged for years; and her desire to learn has declined. Therefore, an understanding of the context in which Hannah worked provided insightful explanations about her approach to professional learning.

On the other hand, it has also been argued that rich contextual information of the case studies is important not only for enabling researchers to better understand the phenomenon under investigation and research participants' responses; but also supporting the reader, i.e. the user of the research, to learn and understand (Flyvbjerg, 2004; Stake, 2000b). In other words, detailed case-context information provides a significant route to knowledge (Flyvbjerg, 2004). Stake (2005; 2000a; 2000b) explained that one of the greatest strengths of case studies is that they allow readers to experience vicariously the particular, ordinary, exceptional or unique experiences and views of others; adding that readers learn by comparing how or whether these cases are like or unlike personal experiences or other cases (or contexts) they already know. In other words, case studies allow readers to acquire in-depth

insights on the particular - the local - which is vital to develop general knowledge (Berliner, 2002; Lincoln & Guba, 2000; Mitchell, 2000).

Stake (2005) linked this to the 'epistemology of the particular' developed by Hamilton (1980), Kemmis (1980), Stenhouse (1979) and Yin (1994) amongst others. A similar point has been made by Flyvbjerg (2004), who explained that case studies have a significant role to play in the process of human learning on the grounds that they produce the type of context-dependent knowledge that, from a phenomenological perspective, is vital to the process of learning. Flyvbjerg (2004) explained that it is only because of intimate knowledge of concrete cases that 'one can move from being a beginner to being an expert' (p. 421). This is what Stake & Trumbull (1982) called 'naturalistic generalisation':

As readers recognise essential similarities to cases of interest to them, they establish the basis for naturalistic generalisation (cited in Stake, 2000b, p. 23).

What is required for case study researchers, therefore, is to concentrate on the case or cases and capture their complexities, rather than use them as a basis for wider generalization in the traditional, rationalistic, prepositional, law like way sense (Lincoln & Guba, 2000; Stake, 2005). Yin (1994) wrestled with the issue of generalisation and concluded:

Case studies are generalizable to theoretical propositions and not to populations or universes.... The case study does not represent a sample, and the investigator's goal is to expand and generalize theories (analytic generalization) and not to enumerate frequencies (statistical generalization) (p. 10).

Although many other researchers have entered the generalization fray (Armour et al., 2002), the perspective explored in this section seems to resonate with the purpose of the case studies undertaken in the present study.

3.5.5 Validity/ Subjectivity

In addition to questions about generalisability, case study research has been strongly criticized for lacking 'validity' and 'objectivity'. Diamond (1996) for example, argued that case studies suffer from a 'crippling drawback' because of the 'unscientific' methods employed (cited in Flyvbjerg, 2004). It has been argued that the freedom to select cases based on convenience and desire to learn might lead researchers to choose cases and interpret findings in ways that support and confirm existing assumptions and preconceptions; i.e. the bias of verification. The issue of quality in qualitative research (and qualitative case studies) is fundamental and will be explored in section 3.9. However, suffice to say now, following Flyvbjerg's (2004) and Yin's (1994) arguments, that the question of subjectivity and bias applies to all methods; and that 'bias' can also enter into the conduct of experiments and other research strategies, such as designing questions for surveys (Yin, 1994). What seems clear is that this debate has not been resolved in the extensive literature (e.g. Bryman, 2004; Donmoyer, 2000; Stake, 2000a, 2000b) and that the approach adopted in the present thesis resonates with the view that any case study researcher (indeed any researcher) must be aware of the strengths and limitations of the approach taken, seeking to ensure the research is both rigorous and transparent.

3.6 Interviewing: The Principal Method of Data Collection

As has been already mentioned, collective case studies at the individual teacher level are the core method used in this research. According to Merriam (2002), one of the most distinguished characteristics of qualitative research is that the researcher is the primary instrument for data collection and data analysis. This means that the researcher is the 'research instrument' and must draw upon various sources of evidence to gather information (data). Patton (1990) stressed that in-depth insights can be obtained only when researchers get close to people and situations; by conducting interviews, observing events/ contexts, and/or analysing documents. In relation to the present study, the decision to employ interviewing as the principle tool of data collection, with both case study teachers and CPD stakeholders, was based

on a thorough analysis of the context of the research (i.e. what method was feasible to be employed) and the purposes of the study (i.e. in-depth exploration of teachers' experiences, views, interpretations and perceptions). Therefore, it could be argued that the method selected suited best the requirements/ purpose and the practicalities (i.e. time and teacher availability) of the study.

3.6.1 Capturing Teachers' Perspectives

It has been argued that the interview method is a powerful tool for researchers to gain a special insight into subjectivity and lived experience (Fontana & Frey, 2005; Mason, 2002a; 2002b; Rapley, 2004); and provide privileged access to teachers' thoughts, values, perceptions, feelings, and perspectives (Gillham, 2000; Holstein & Gubrium, 1995; Merriam, 1988; Wellington, 2000). It is also believed that teachers' insights have the potential to contribute to the broadening of the knowledge base about physical education and PE-CPD (Armour, 2006; O'Sullivan, 2006); in other words, these teachers' views and experiences are seen as 'meaningful properties' of the socially constructed nature of the realities under investigation (Mason, 2002b, p. 63).

According to Mason (2002b), 'interviews are one of the most commonly recognised forms of qualitative research method' (p. 63). The popularity of interview methods is so striking (Silverman, 2000) that it has been argued that we now live in an 'interview society' (Silverman, 1993), in which 'everyone gets interviewed and gets a moment in the sun' (Fontana & Frey, 2005, p. 695). In its simplest form, interviewing involves two or more people in 'a neutral exchange of asking questions and getting answers' (Fontana & Frey, 2005, p. 695). In the context of qualitative research, Platt (2002) explained that the field of qualitative interview is so diverse and evolving that attempts to draw up meaningful categories are fruitless. However, it could be argued that the range of interview structures includes face-to-face, telephone, individual, group interviews (Hitchcock & Hughes, 1989; Holstein & Gubrium, 1997; May, 1999); and approaches include active, creative, in-depth, structured, guided, semi-structured, open-ended, life history, surveys, opinion polling (Hitchcock

& Hughes, 1989). Seeking both breadth and depth in teachers' responses, the interviews employed in the present study were individual and semi-structured. This means that prior to conducting the interviews, a detailed research protocol was developed for each of the three planned interviews (see appendix B), outlining the topics and issues to be explored.

3.6.2 Interview Protocols

As illustrated in appendix B, the protocols for each of these interviews emphasised a particular area of inquiry associated with the individuals' experiences. The purpose of the first interview with the case study teachers was threefold:

- to get to know the individual teachers better, to find out about their personal philosophies for teaching PE and their views regarding PE provision in their schools;
- to discover the pragmatics of CPD provision and entitlement in their schools; and to explore their thoughts on what activities constitute CPD; effective/ineffective CPD; and the nature of learning that may occur when teachers participate in CPD; and
- to find out about teachers' motives/ barriers to CPD participation.

The second interview aimed to discuss embedded knowledge and how it was acquired; as well as exploring potential sources of learning for them. Teachers were specifically asked to identify any ways in which they had informally 'acquired' or 'developed' new skills or knowledge and how / whether they were using them in their lessons. In addition to data about formal and informal learning experiences, information about these teachers' professional learning needs were also collected.

The third planned interview was designed to explore a number of existing theoretical positions on CPD and PE-CPD in the international literature and seek further insights into issues that had not been adequately explored during the previous two meetings. In between the research visits, these case study teachers were encouraged to keep a structured learning diary (see appendix

B) and outline any interesting learning incidents. Interestingly, none of these teachers felt that anything interesting was learnt during the period of the research and so the diaries were empty. In the following section, a reflective, personal account of the ways in which the interview was conducted and proceeded is presented.

3.6.3 The Interview Process

Arguably, there are two broad ways researchers can enter the interview process. On the one hand, the 'traditional' approach encourages researchers to claim neutrality and objectivity during the interview process. Drawing upon positivist and post-positivist epistemologies (see section 3.2 in this chapter), (conventional) approaches to interviewing assume that knowledge exists 'out there' and the aim of the interviewer is to achieve scientific neutrality:

Interviewing becomes the art of knowledge excavation and the task is to enable the interviewee to give the relevant information in as accurate and complete a manner as possible (Mason, 2002a, p. 226).

From this perspective, 'how-to conduct interviews' documents suggest that researchers must be particularly careful to avoid leading or complex questions; and ensure that they play a neutral role, avoiding imposing opinions or any *a priori* categorization on the participants, thus limiting the scope of their answers (Fontana & Frey, 2000). This means that researchers must follow Converse & Schuman's (1974, cited in Fontana & Frey, 2000, p. 650) advice: that is, adopt a style of 'interested listening' that rewards the respondent's participation but does not evaluate the responses. In the context of the present study, it was acknowledged that 'leading' questions or comments that impose the researcher's opinion and narrow questions that limited the scope of research participants' comments were to be avoided. However, there was a parallel understanding that interviewing is about engaging research participants in open, rich conversations in order to provide thick descriptions of their experiences (Rapley, 2004). Therefore, it was soon realised that interviewing is a far more complicated process than what was described in some 'how-to' traditional manuals.

According to Fontana & Frey (1994), researchers cannot become objective, 'faceless interviewers' (p. 373); and Watson & Weinberg (1982) claimed that 'being neutral in any conventional sense is actually impossible' (p. 20, in Rapley, 2004). In this framework, recent conceptualisations of interviewing acknowledge that the interview is a collaborative, contextually-bound interaction between two or more people in the process of exchanging information and *co-constructing* both the content and outcomes of the interview process (Fontana & Frey, 2005; Mason, 2002a; Rapley, 2004). Rapley (2004) wrote:

Interviews are *inherently interactional events*; both speakers mutually monitor each other's talk (and gestures); [and] the talk is *locally and collaboratively produced* (p. 16).

Similarly, Fontana & Frey (2005) defined the interview as 'a contextually bound and mutually created story' or narrative (p. 696); the result of a collaborative effort by all parties involved.

This approach to qualitative interviewing shares with social constructivism the view that there are multiple socially constructed realities, and that knowledge is situated in specific contexts and co-constructed in the process of generating meaning. From this perspective, the researcher's task is to create adequate conditions (through questioning, listening and prompting) for the construction of meaningful knowledge (Mason, 2002a). Mason (2002a) suggested that one way of doing that is through grounding the interview dialogue in relevant contexts (i.e. contextualisation), so that research participants can draw upon these contexts and share their meanings. This has had another significant implication for the process of data collection in the present study. It was realised that without a connection to teachers' real lives and experiences, their comments could become meaningless. Thus, during interviews, teachers were asked to recall specific moments of practice and provide examples to illustrate their arguments, elaborate on when/ where/ why they learnt a specific practice; or reflect upon a specific CPD scenario and link that to their own experiences.

3.6.4 The Interview Protocols: A Reflective Account

This section provides a reflective account of the researcher's experiences in the 'field' during the interview process; and, thus, a first person account is adopted. Prior to embarking upon the first interview, the intended strategy was to ask all research participants the same questions and allow them space to express their opinion in an open-ended format. However, early in the research process, I faced a significant challenge, which is related to the fundamental assumption upon which the interview method is based: that the quality of data gathered is 'heavily dependent on people's capacities to verbalise, interact, conceptualise and remember' (Mason, 2002b, p. 64). I soon realised that while some teachers were incredibly creative and were willing to think aloud with a stream of words and thoughts; others were not. Some teachers seemed uncertain about how much to tell, how much to 'expose' their professional views, and seemed to 'weight' their answers in order to provide the response that I might have anticipated. Fontana & Frey (2000) have stressed that research participants may prefer to give a socially and professionally acceptable answer rather than a more accurate response that represents their personal views and experiences. This situation led me to question the process. Facing this situation, if the purpose was to explore and understand, I had to adopt an even more flexible and open-ended approach. I had to build my capacity to be highly responsive to individual points of view and insights (Patton, 1990) and build rapport and trust with each one of the research participants.

The first strategy I employed to enable me to become more responsive to these teachers was to transcribe our recorded conversations after the end of each meeting. The transcriptions were then reviewed, reflecting on situations where I could have prompted a more detailed response, or where I should have left a conversation to be carried away to places where the teachers wanted to go. I also attempted to sort out which type of questions worked more effectively with each teacher and planned ways to communicate respectful listening' (Oliver & Lalik, 2000, p. 30). I gradually learnt to use questions as pathways rather than a pre-scripted necessity. I was talking with

the teachers interactively, asking them questions of interest to the research project, but also guiding them to talk about their own experiences, seeking to gain access to their accounts, articulations and explanations. The emphasis was on capturing the complexity in these teachers' varied experiences and this necessitated asking different questions to different teachers in order to generate situated knowledge and contextual understandings. Therefore, I gradually moved away from my initial tendency to try asking similar questions to all teachers. Although the same topics were covered, the questions were asked in ways that were meaningful and relevant to these teachers' individual experiences. This shift involved and was the result of a learning process. On certain occasions, I found myself sharing my own views on the topic of discussion; as an open text for negotiation rather than a research-driven truth. By doing this, I was attempting to encourage teachers to share their deep thoughts and concerns about the issue. I hope I created the space for open and reflective conversations with my 'collaborators', the teachers, in order to understand teachers' views and experiences in their own terms (Oliver & Lalik, 2000).

3.7. Phase Two: Open-Ended Profile Questionnaires

The open-ended profile questionnaire was developed when preliminary analysis of the first interviews with the six case studies (September 2005) revealed that these teachers appeared to share similar views regarding their PE-CPD experiences. Therefore, it was important to provide a broader data context of the same area in Athens, within which the case study teachers were located. Similarly to the argument made for the interviews, the intention was to find a sufficient number of PE teachers in the same area of Athens, who would be willing to complete all 7 steps of the open-ended questionnaire (see appendix C), rather than seek for a representative sample in order to generalise findings in the traditional, positivist way. The aim was to gain depth and areas of commonalities with the case study teachers rather than breadth.

This area consisted of four educational offices: office one, office two, office three and office four. Each educational office was responsible for approximately 6-10 boroughs and each borough, depending on its size, had

15-18 primary schools and 5-8 secondary schools. For the purposes of this study, the open-ended profile questionnaire was personally distributed to 70 PE teachers working in both primary and secondary schools in the first three educational offices. The selection of the teachers was random, based on ease of access to the selected areas. The purpose of the questionnaire was: to explore the key features of PE teachers' CPD histories in order to draw conclusions about the kind of CPD they have attended; to examine what they found effective/ineffective CPD and why; and to understand how these experiences have impacted upon their practice. Furthermore, information on teachers' sources of learning, professional learning needs, and recommendations for future CPD provision was also sought. A total of 58 PE teachers (39 secondary PE teachers and 17 primary PE teachers) returned the profile questionnaire (83% return rate). It is believed that the decision to personally distribute and collect the profile questionnaires has been important to secure their return.

The decision to employ 'open-ended' in comparison to 'closed' questions was based on the purpose of the research study and the general epistemological framework within which it was grounded. In other words, since the aim of the study was to capture the specificity of a particular situation, to seek detailed responses and to avoid narrowing down research participants' responses, the design of an open-ended questionnaire was perceived appropriate. Cohen et al. (2007) stressed the links between the purpose and epistemological grounds of a study and the kind of methods employed:

Where measurement is sought then a quantitative approach is required; where rich and personal data are sought, then a word-based, qualitative approach might be more suitable (p. 321).

Twenty five years ago, Bailey (1982) identified two main advantages of open-ended questionnaires that resonate with the decision to employ this method in the present study. Bailey (1982) argued that open-ended questionnaires are particularly useful when: (1) all the answers or categories are not known from the outset or the potential answers are too many to be listed in the questionnaire; and (2) there is a need to allow research participants the space

to explain their answers in full without the imposition of a prior categorisation. For example, PE teachers were asked to list all CPD activities they could recall undertaking providing specific details in terms of duration and CPD strategies employed, and to reflect on their perceived effectiveness. The open-ended form of the questionnaire allowed teachers to add remarks or explanations to their responses, and express their own views and understandings. In this context, it was believed that teachers' responses would reflect what *they* (and not the researcher or the relevant literature) understood by the notion of CPD and effective CPD.

Cohen et al. (2007) also pointed out that 'open questions enable participants to write a free account in their own terms, to explain and qualify their responses and avoid the limitations of pre-set categories' (p. 321). However, Cohen et al. (2007) also acknowledged a significant limitation of open-ended questions; namely, that research participants can provide irrelevant or redundant information. Personal distribution and collection of the questionnaire diminished these dangers because, when time was provided, the researcher briefly explained the essence of each question and, upon return, asked for further clarification by the research participants when it was required.

3.8 Phase Three: Selection of CPD Stakeholders

Phase three of the research design (see section 3.4) comprised of interviews with CPD stakeholders. In accepting the argument that all elements of a CPD or learning system need to be identified and explored (Borko, 2004), the intention was to identify and interview 'key players' in the CPD and PE-CPD terrain. The rationale underpinning the selection process of the research participants was similar to that of the case study teachers. The intention was to gain access to people with diverse experiences and views, holding various roles and responsibilities in the existing CPD system. It was essential to interview the school advisor of the same area as the case study teachers (Andrew). Three members of the local university that were actively designing and / or delivering PE-CPD opportunities for PE teachers were approached and agreed to participate in the study. Two members - Matthew and Christine

- were interviewed together. In order to gain access to CPD policy and practice, one member of the Pedagogical Institute, formerly responsible for all PE-CPD at a national level (Patrick) also participated in the study. The President of the department of teacher training of the Pedagogical Institute also agreed to participate in the study but professional commitments did not allow this meeting to take place. Members of the O.EP.EK were also approached but did not agree to participate in the study because of professional commitments. An informal meeting with a member of the Ministry of Education and Religious Affairs took place early in the research process (November 2004) in order to provide the researcher with relevant policy documents. A formal interview was agreed to be conducted later in the process, but this never took place because of restrictive available time. A representative of the secondary teachers' union (Mark) also participated in the study in order to explore the official teachers' association position on the matter of teacher CPD. The same interview principles applied as with the case study teachers (discussed in section 3.6).

3.9 Data Analysis

This section explores the methods employed in the analysis of the data. As has already been mentioned, the data to be analysed consisted of transcripts from 28 individual interviews with the case study teachers and 5 interviews with the CPD stakeholders. Moreover, from the second phase of the research, 58 open-ended profile questionnaires were collected. Therefore, the variety of research methods employed generated two main forms of data: transcribed interviews and teachers' written accounts. It has been acknowledged that there are many different ways of analysing qualitative data (Anfara et al., 2002; Cohen et al., 2007; Dey, 1993; Grbich, 2007; Miles & Huberman, 1994; Patton, 2000). However, researchers must choose an approach that fits with the wider methodology of the study. In this sense, the bulk of the analysis belonged to the interpretative paradigm. Having said this, the analytic methods used in the present study have been underpinned by some of the fundamental principles of grounded theory (Corbin & Strauss, 2008). Grounded theory is believed to be particularly suitable when the topic is little

researched and no theoretical basis has been developed yet. This was the case for the Greek context so employing elements of a constructivist version of grounded theory was very valuable. Furthermore, as discussed later on, grounded theory supports the cumulative method of data collection employed in this study.

3.9.1 Grounded Theory: The Original (or 'Traditional') Approach

Grounded theory is largely attributed to Glaser & Strauss's (1967) seminal work. Traditionally, grounded theory refers to a systematic form of inquiry employed within qualitative methodologies with the aim to *discover* theory from data (Pidgeon & Henwood, 2004) that can explain and understand the data. This means that categories and concepts are developed systematically from the data and are linked to substantive and formal theories (Corbin & Strauss, 2008). Grounded theory involves a number of steps for the analysis of the data, which include coding, memo writing, constant comparison, conceptual categories and theory building. Although the process of data analysis is frequently described in a linear fashion in order to facilitate understanding, in reality, researchers must move backwards and forward in these different steps in order to compare and contrast their interpretations of the data and gradually build, rework or refine the 'workable' theory (Glaser & Strauss, 1967).

Within the grounded theory tradition, the first step in analysing the data is 'Open Coding'. According to Strauss & Corbin (1998), 'open coding is the analytic process through which concepts are identified and their properties and dimensions are discovered in data' (p. 101). It is acknowledged that open coding helps the analyst to *discover concepts* that are of particular interest and relevance to phenomena under study. While coding, according to Strauss and Corbin (1998), analysts open up the text and break it down in discrete events, ideas and acts (incidents). The intention, they continue, is to think of these incidents not only in a descriptive but also analytic sense and place a conceptual name (label) that represents them abstractly. The process of naming these incidents is in itself crucial as it enables researchers to group

similar events under a common heading or classification (Strauss & Corbin, 1998). It is argued that as researchers move further in analysing they come across other crucial incidents in the data. In that case, they constantly compare one another in order to decide which fit in together and put them under the same conceptual meaning-code (Harry et al., 2005). It is essential to note that labelling itself presupposes an in-depth and detailed analysis of the data, in order to discern the range of potential meanings attached to the participants' words; in other words, to identify 'multiple possible classifications' (Strauss & Corbin, 1998, p. 104).

Strauss & Corbin (1998) suggested that the use of questioning and the making of comparisons can facilitate and develop researchers' understanding of the data text. These basic operations need to be constantly used during the analysis. The use of questioning and constant comparisons can facilitate the researchers' understanding and tune them into what the data might be indicating; help them make connections across concepts; and provide direction for future sampling or development of theory (Strauss & Corbin, 1998). When concepts begin to accumulate, Strauss & Corbin (1998) suggest grouping them under more abstract terms; that is, categories. Categories stand for important phenomena to study and have explanatory power and purpose. Once analysts identify a category, Strauss & Corbin (1998) continue, they attempt to develop it in terms of its 'properties' and 'dimensions'.

Properties are the general or specific characteristics or attributes of a category, while dimensions represent the location of a property along a continuum or range (Strauss & Corbin, 1998, p. 117).

3.9.2 A Constructivist Approach to Grounded Theory

It is important to note that, although grounded in a positivist paradigm, grounded theory has been adapted and developed in strikingly diverse epistemological directions since its initial conceptualisation. The constructivist approach to grounded theory, developed by Charmaz (2006; 2005; 2000), seems particularly pertinent in relation to this study. The constructivist position challenges standard positivist methodologies that assume 'discovery' of

existing empirical reality (the truth) based on some form of 'pure' or 'neutral' inductive thinking. Rather, it is believed that what researchers observe and understand is influenced by their previous experiences and assumptions. According to Charmaz (2005), 'neither data nor ideas are mere objects that we passively observe and compile' (p. 520). Grounded within a social constructivist research paradigm, Charmaz (2000) explained:

The constructivist grounded theory distinguishes between the real and the true. The constructivist approach does not seek truth- single, universal, and lasting. Researchers' attention to detail in the constructivist approach sensitises them to multiple realities and the multiple viewpoints within them; it does not represent a quest to capture a single reality (p. 523).

Therefore, Charmaz (2005) encouraged researchers to explore the views, meanings, feelings, thoughts, experiences and values of individual research participants in order to shed light in the issues under investigation. Similar to the 'traditional' approach, the key steps in data analysis from this perspective are: (1) initial coding (e.g. word-by-word coding, line-by-line coding, coding incident to incident, in vivo codes) in order to start grappling with what different data extract mean to the research participants; (2) focused coding, which signals the beginning of a more analytical process of analysis, where researchers synthesise and explain larger segments of data; (3) axial coding, which corresponds to Strauss & Glaser's (1967) notion of development categories along their properties and dimensions; (4) memo writing; (5) theoretical sampling, which seeks to bring together data to develop the emerging theory; and (6) development of the theory. It is important to note that only a few steps of this process were employed in the data analysis in the present study; and these are explained in the following section.

3.9.3 An Adaptation of Grounded Theory

In the context of the present study, the data analysis process involved six steps.

Step One

After each meeting, conversations were immediately transcribed in order to get a better sense of what the research participants were saying. Working with audio-tapes and transcriptions enabled the researcher to sound and re-sound the research participants' experiences. This was the explanatory phase of the data analysis with a dual purpose: first, to get a sense of what was happening and, second, to become responsive to teachers' comments and perspectives (see section 3.6.4).

Step Two

The second step of the data analysis involved multiple readings of the data in their raw format through coding and memo writing which happened simultaneously. Through coding, key points being made by the research participants (in relation to the 3 research questions) were identified; and name or label was attached to each one of them that captured the central meaning of the point. Memo writing was a very powerful experience, given the cumulative method of data collection employed in the case studies, as it allowed making connections between data analysis and further collection of data. Key issues discussed with the research participants were identified and points that need further exploration were pursued in follow-up meetings. This reflected what Glaser & Strauss (1967) called theoretical sampling; the process whereby the researcher collects, codes, and analyzes the data and decides what data to collect next and where to find them, in order to develop the theory (Glaser and Strauss, 1967). An example with the case of Hannah can be found in table 2.

Table 2: Coding and Memo Writing

<p>State schools lack sport facilities. PE teachers need to teach in the school yard. Even schools that are in new buildings, like our school, are not equipped with adequate sport facilities.</p>	<ul style="list-style-type: none"> • 'Teach in the school yard' • 'Lack of facilities'
<p>Q: How does that relate to our discussion on CPD?</p> <p>They (CPD providers) should tell us how to teach and improve our teaching based on the given reality and conditions that exist in state schools.</p>	<ul style="list-style-type: none"> • 'Realistic CPD' • 'CPD based on school reality'
<p>I would really like to see one of those that 'sit on the top of hierarchy', that have no links with schools (they haven't taught for years) and explain their theories, to come 'down' and visit one school for one week. After this experience, they could tell us how to improve our lessons and performance. I believe that more teachers will tell you the same thing.</p>	<ul style="list-style-type: none"> • 'CPD providers: outside reality' • 'Gap between theory and practice' <p>How can 'realistic' CPD be a reality?</p> <p><i>Is that a critique of current provision?</i></p> <p><i>Theory and practice:</i> Hannah implies that there is a gap between theory and practice; 'theorists' and 'practitioners'. She believes that 'theorists' are not aware of the current situation in schools, and in order to be more informed they should visit and experience some schools and then make their suggestions more relevant to the school reality.</p> <p>Certainly, making suggestions for 'improving' practice is a challenging task; this is what she implies. It is not as easy as it sounds.</p> <p>What are the hidden beliefs regarding the work of teaching? Does it involve implementation of other's theories and knowledge?</p>

As the example in the table above reveals, data collection and data analysis were in a dialectical relationship- one informing the other. In this context, given the cumulative method of data collection employed in the case studies (with a number of visits to the case study teachers), the power of memo writing lied in making explicit connections between emerging ideas and empirical investigations. Grounded theory stimulated the further investigation of these key concepts and ideas; namely, what did collaboration or social learning mean to different teachers and how did they experience them in different settings? In other words, key concepts were not treated as static or given (Charmaz, 2005), but rather their meaning and form were problematised during subsequent meetings with teachers and looked for their characteristics 'as lived and understood, not as given in textbooks' (Charmaz, 2005, p. 512).

Steps Three and Four

The next step in the data analysis, which was indeed ongoing, was the constant comparison of the codes in order to decide which belonged together (Harry et al., 2005) – which led to the fourth step, the axial coding or creation of categories. Categories involve clustering the open codes around specific points of intersection (Harry et al., 2005). Before moving any further it is important to clarify that data were analysed in two ways:

- (i) Vertical analysis within case studies, interviews and questionnaires (as illustrated in table 2); and
- (ii) Horizontal analysis, across different research participants with the aim to identify commonalities, differences, and patterns among the data from all respondents.

Examples of codes included 'observing others', 'conversing with colleagues/friends' or 'professional dialogue', 'sharing resources with colleagues-friends', 'sharing tips', 'descriptive dialogue', 'lack of collaborative structures in schools'. These codes were grouped under the category of 'learning from each other', as these codes were understood as representing the range of experiences gathered about collegial or collaborative learning. Other examples of categories included, for example, 'learning from

experience', 'learning alone', 'learning through reflection', and 'barriers to learning'.

Step Five

The next step was to cluster all these categories under the heading of the first research question, namely how the case study teachers perceived they learnt about teaching. Similarly, codes and categories that answered the second and third research questions were grouped correspondingly. This step represents what grounded theorists call the development of themes. Usually, this step is an inductive process, but, clearly, in the case of this study, this first level of thematic analysis was deductive – the research questions were already there and the categories were clustered with the aim to answer them. Therefore, summaries for each case study teacher and CPD stakeholder were created answering the three main research questions and these are reported in chapter 4.

Step Six

A cross-case analysis between all the research participants' responses was conducted with the aim to identify the key points discussed. This level of data analysis consisted of trying to bring together issues discussed within or across the different data sources and the three research questions with the aim to highlight contradictions, reinforce key messages, and seek for more in-depth explanations of the findings. The result of this level of analysis is presented in the fifth chapter, the discussion of the findings.

The approach chosen for the present study reflects some of the elements of a constructivist approach to grounded theory, which enables researchers to focus and strive to understand research participants' constructions of reality and interpretations, while encouraging a detailed contextual description of their lived realities.

3.10 Quality in Qualitative Research

It is widely recognised that the criteria (or standards) for quality research are, to a large extent, dependent upon the theoretical and epistemological

standpoints adopted by the researchers (Cho & Trent, 2006; Eisenhart & Howe, 1992). According to Healy & Perry (2000), the quality of research done within a paradigm has to be judged by its own paradigm's terms (p. 121). For example, positivist researchers consider concepts like validity, reliability, generalisability and objectivity to be essential criteria in assessing quality (Healy & Perry, 2000). Traditionally, validity means that the tools/ strategies employed are measuring what they claim or are intended to be measuring (Cook & Campbell, 2004; Polit & Hungler, 1995; Storey, 1992); and reliability has been described as 'the degree of consistency or dependability within which an instrument measures the attribute it is designed to measure' (Polit & Hungler, 1995, p. 67). However, in the context of qualitative/ interpretivist/ naturalistic inquiry, notions of quality are contested and ambiguous (Feuer et al., 2002; Freeman et al., 2007; Hammersley, 2005; Lather, 1993; Pillow, 2003; Seale, 1999). Within a proliferation of different paradigms that can draw upon qualitative methodologies and a wide range of methodological approaches within the qualitative paradigm, concepts related to quality or legitimacy have been used with shifting meanings and have been open to distinctively different interpretations. Onwuegbuzie & Leech (2007) contended that 'to date, no one definition of validity represents a hegemony in qualitative research' (p. 233); and Morse et al. (2002) pointed out that the relevant literature is somewhat 'muddled'.

3.10.1 Criteria in Qualitative Research?

Through an analysis of existing literature, Rolfe (2006) summarised three distinct positions in the ongoing debate on establishing criteria for qualitative research. The first proposes the adoption of the traditional concepts of validity, reliability, objectivity, and generalisability - that originated in positivist research - and either employ these in the traditional manner, or interpret them in ways to reflect the philosophy and requirements of qualitative inquiry (Long & Johnson, 2000). In both cases, the process is strongly based on the standardisation of methods and situations. For example, validity is ensured or established when qualitative researchers follow a number of verification strategies (Morse et al., 2002). These strategies include: triangulation,

disconfirming evidence, researcher reflexivity, member checking, prolonged engagement in the field, thick and rich description.

According to Rolfe (2006), the second position argues that qualitative research is fundamentally different from the positivist paradigm (Morse et al., 2002; Seale, 1999); and that terms like 'validity' and 'reliability' are no longer suitable or adequate to encapsulate the range of issues surrounding quality in qualitative research (Seale, 1999). Thus, it has been argued that there is a need to develop new concepts and criteria. Cho & Trent (2006) captured this as the 'transactional approach' (p. 320). A typical example is Guba & Lincoln's (1985) notion of 'trustworthiness' in 'naturalistic inquiry', which seems to have been developed to substitute the notion of validity in qualitative terms. Trustworthiness has been further divided into credibility, transferability, dependability and confirmability:

1. *Credibility* refers to the validation of findings and results (Seale et al., 2004) in a way that reflects research participants' views (Schwandt, 2001). These include a range of activities: prolonged engagement in the field; persistent observation; triangulation; peer debriefing; member checks, to name a few.
2. *Transferability*: Lincoln & Guba (1985) argued that the process of generalisation is unrealistic in the context of qualitative research and coined the term 'transferability' which refers to the extrapolation of findings from one context or case to another. In Lincoln & Guba's (1985) words, 'whether the findings hold in some other context, or even in the same context at the same time' (p. 316).
3. *Dependability*, an analogue to reliability, is a process where researchers carefully document the process of generating and interpreting data (Schwandt, 2001); and the methods can be identified, justified, and explained (Lincoln & Guba, 1985).
4. *Confirmability* (parallel to objectivity) is concerned with establishing the fact that the data and interpretations of an inquiry are not the result of the researcher's imagination; but rather findings are grounded in the data. This links with the notion of 'warranted' findings (Gorard, 2002).

It is interesting to note that some authors (e.g. Hammersley, 1992; Long & Johnson, 2000; Seale et al., 2004; Sparkes, 1998) have pointed out that, despite the use of alternative terminology, the meanings and implications of these different concepts (e.g. transferability vs. generalisability) overlap significantly. A simple example illustrates the argument. In both traditional and transactional terms, despite little discrepancy in the existing definitions, a qualitative research study is considered 'valid' or trustworthy to the degree to which researchers' constructed categories and interpretations correspond to the research participants' views and experiences (Cho & Trent, 2006; Guba & Lincoln, 1985; Kirk & Miller, 1986). However, it could be argued that these positions differ in the degree of claimed neutrality. Researchers adopting the 'traditional' approach aim to consciously avoid personal involvement that might bias a study (Jansen & Peshkin, 1992; Tomas, 2000). This means that researchers try to detach themselves from the 'object' of inquiry - in essence, depersonalise their research - with the aim of capturing and communicating the research participants' views in an 'objective' manner. The transactional approach accepts involvement as an inevitable part of the inquiry and treats claimed neutrality as deluding or misleading. Greenbank (2003) captured this as the debate between those advocating a value-neutral and those arguing for a value-laden approach to (educational) research. Seale (1999) talked about a clash of two moments (p. 3).

The third, more radical approach, what Cho & Trent (2006) called the 'transformation' perspective, suggests a complete rejection of all predetermined criteria (Eisenhart & Howe, 1992; Rolfe, 2006) on the grounds that they oversimplify this complex process and 'inhibit creative and imaginative uses of qualitative research' (Spencer et al., 2003, p. 90). Therefore, for Rolfe (2006), 'validity is achieved through consensus on each individual study rather than by the blanket application of predetermined criteria' (p. 305). The argument is based on the assumption that qualitative research is so unpredictable, emergent and iterative that the best way to assess its quality is through examining the effect upon people and situations being studied (Rolfe, 2006;). In its most 'extreme' version, qualitative research studies are valid when researchers adopt a critical and emancipatory position;

i.e. they challenge meanings and definitions that are taken for granted, raise awareness of major political, social, or other issues, and provoke social action and change to remedy the problems of oppressed people (Aguinaldo, 2004; Cho & Trent, 2006; Seale, 1999; Sparks, 2001). This is what Aguinaldo (2004) called, a pragmatic approach. He wrote: 'we change our validity question from 'is it valid research?' to 'what is this research valid for?'" (p. 3). Therefore, the quality of a research project should be judged in terms of its political effects (Seale, 1999).

Indisputably, the field of quality in qualitative research is multidimensional and ambiguous, with competing claims as to what counts as high quality work (Seale, 1999). Perhaps the key point to be made is that this thesis has adopted a number of strategies in order to ensure its quality. These strategies include the following: First, member checking has been employed in order to ensure that findings reflect the research participants' views (that is research credibility) (Seale et al., 2004). Second, thick and rich descriptions and quotes are offered in chapter 4 in order to ensure the researchers' interpretations corresponded to the research participants' views and experiences (confirmability or objectivity). Third, it has also been suggested that case to case 'transferability' (instead of generalisability) can be achieved when researchers provide sufficient contextual information (Schwandt, 2001); and this has been discussed in section 3.5.4 in the context of case study research. Fourth, the methods employed are identified, justified and explained and this is the key purpose of this methodology chapter (dependability). Finally, research reflexivity has been adopted in order to acknowledge the influence of a number of factors upon the research process (e.g. data collection or analysis). This is an issue that will be discussed in more detail in the following section.

3.10.2 Reflexivity as a Methodological Tool

The notion of reflexivity has been closely associated with debates surrounding legitimacy and quality in qualitative research (Pillow, 2003). Indeed, it has been argued that reflexivity is a methodological tool that can assist

researchers 'better represent, legitimise or call into question their data' (Pillow, 2003, p. 176). Like many other concepts, reflexivity has been both defined and employed in diverse ways by different researchers. Reflexivity has been defined as 'a way of seeing which act back on and reflect existing ways of seeing' (Clegg & Hardy, 1996, in Alvesson & KajSkoldberg, 2000, p. 248); or as a 'turning back of an inquiry onto its own formative possibilities' (MacBeath, 2001, p. 36). In the context of the present study, reflexivity is understood as a methodological tool that enables researchers to 'shift inwards' and engage in a critical elaboration of the various influences (personal, professional, biographical, social, cultural) they bring to the inquiry, drawing attention to how these affect the research process (Alvesson & KajSkoldberg, 2000; England, 1994; Cupchik, 2001; Pillow, 2003; Ratner, 2002). In practical terms, this means that researchers engage in the processes of listening and writing about themselves, demonstrating self awareness and raising questions about the research throughout the duration of the process:

Researcher reflexivity represents a methodological process of learning about self as researcher, which, in turn, illuminates deeper, richer meanings about personal, theoretical, ethical, and epistemological aspects of the research question. Qualitative researchers engage in reflexivity because they have reason to believe that good data result (Kleinsasser, 2000, p. 155).

Furthermore, through careful attention to reflexivity, researchers are able to disclose to the readers how knowledge has been generated or constructed. As an example, Peshkin (2000) provided a detailed account of his journey of interpretation in a study of the academic achievements of Native American youth. In this context, he stressed that his inquiry was not a 'pure' objective account of the youth's experiences but rather a mixture of his previous research orientation (and knowledge) that shaped the study at various points and an emergent understanding of the particular context. Peshkin (2000) wrote:

The many months I spent collecting this information resulted in an extensive, information-based 'text'. This text emerged from the interaction between my original conceptual text, its evolution in the course of fieldwork, and

what I eventually developed as data from my accumulated array of observational notes, interview transcripts, documents, and literature (p. 6).

It is important to acknowledge, however, that engaging in this kind of reflexivity and clarifying taken-for-granted assumptions is, by definition, challenging. Nonetheless, an attempt is made in the following section to repeat the reflective process in which the researchers engaged. Given its reflective nature, a first person account is adopted.

3.10.3 A Reflective Account

The reflective account begins with the process of selecting the topic of inquiry. A number of biographical features and professional experiences may be identified as having a particular influence upon the decision to study PE teachers' professional development experiences. I grew up in a family that valued state education and strongly believed in the power that schools and teachers hold in providing meaningful experiences to pupils. My father is now a retired maths teacher; but since I was a little girl, I remember him spending almost every evening (and weekend) getting prepared for every single lesson, marking, and studying to create his own maths problems that would meet his pupils' needs. However, I also vividly remember my father returning from CPD courses and discussing with my mother about their quality and usefulness (or lack of it). In most cases, my father could see few links between what he was hearing in CPD and what he needed to learn in order to improve his practice. One of the most striking memories I have dates back to my lower secondary school, when my father said something like: 'they [CPD providers] were talking about the ideal lesson, and I told them that in real life we only have 45 minutes for each lesson and that the demonstration was much longer than that. They only included how to teach a unit as if all students understand the same, and did not include checking what students know or do not know. I didn't learn a thing that I can use in my lessons'.

Twelve years later, I enrolled on an MSc degree at Loughborough University in the UK. To my surprise, the first module was on teachers' CPD. Initially, I

could barely see the relevance. I had left my job because of innumerable and challenging questions about pedagogy, teaching and learning, and I was expecting to learn something about how to teach PE. Like many other teachers, I wanted tips and ideas on how to engage pupils in meaningful learning experiences. This was my biggest challenge during my first year of teaching in a public (private) school in Athens. But, when I started discussing with other MSc students and the teacher (Prof. Armour) about the essence and meaning of the assignment, which required a personal analysis of and reflection upon our own PE-CPD experiences, a whole new world opened in front of me. This task encouraged me to think critically and realise that my year long experience was both a powerful experience that confirmed my decision to follow a teaching career, but also a harsh realisation that both my initial training was inadequate and the support I received from the school or the responsible bodies was missing. I was able to express, on paper, all the frustration and desperation I felt during this year with lack of adequate facilities, but also write about moments when I had attempted to break down the barrier of teacher isolation and seek support.

As I became gradually immersed in the relevant literature, my ability to be critical of my own and others' experiences increased substantially. This experience made me value any endeavour to give teachers opportunities to discuss what they find valuable in CPD and provide recommendations for future provision. This module made me realise some of the complexity of professional learning, illustrated how little attention was given, at the time, to structured professional development in Greece, revealed that prior qualitative research on PE-CPD was non-existent, and inspired me to do something about it. It was during this year that I started to develop my view that CPD is at the heart of any endeavour to improve the quality of education at various levels (academic, political, practical). I came to understand that if teachers cannot access high quality research or share experiences and learn from each other - in other words, if opportunities for CPD are inadequate, poor, or absent - it is difficult to see how pupils' learning experiences can be optimised. The following year, I enrolled on a PhD to investigate PE teachers' CPD.

Early in the research process, I became acutely aware that I had some strong preconceptions about not only the nature and quality of CPD and PE-CPD provision in Greece, but also the context in which professional learning and practice were taking place. These views derived from my own experiences as a student and student teacher; what Lortie (1975) called, from the 'apprenticeship of observation'- and were gradually reinforced in my first teaching post. Having experienced the Greek educational system from these various standpoints, I knew that PE teachers had to face striking challenges to secure adequate equipment and conduct PE lessons on asphalt, out-door school yards, with limited structured support. As a novice teacher, I returned from a national conference in Greece inspired to make changes, only to realise that the context was restrictive and I did not have the tools (or the support) to initiate the changes I envisioned. I also came across numerous PE teachers who felt isolated, neglected and unable to teach effectively - or, indeed, to teach at all. Added to these experiences, as the daughter of a teacher, I had the privilege of being able to engage in passionate debates about the quality of education (and CPD) as soon as I expressed a desire to be a teacher myself. Many of these conversations were 'realistic' or 'cynical', depending on the interpretation.

During the fieldwork, critical reflection on these lived experiences enabled me to develop a sensitive, complex and, occasionally, sharp understanding of a number of issues raised by the research participants that I might not have had access to under different circumstances. With some teachers, it was apparent that we shared a common language and assumptions about PE teaching and learning and PE-CPD. This is what Bennett (1998) and Barna (1998) called a 'similarity-based research situation' (in Benn, 2008). In this context, I felt that, due to my personal / professional experiences, the quest to develop good understandings of the constructions of others was fulfilled to some extent. However, at the same time, I was also aware that if I had more teaching experience, or was a more experienced reflective researcher, I would have been able to draw upon richer and deeper insights in order to understand even more. Furthermore, I felt that a significant limitation was that I was, by all

accounts, an 'outsider' (Shah, 2004); in terms of my professional status, life history, and age. In section 3.6.4, the approach adopted during the interview process in order to enhance my ability to understand teachers' perspectives and encourage them to talk openly was described.

This realisation, however, caused me some concern in that these predispositions or predilections could shape the research inquiry or drive the interpretation of the data in inappropriate ways; in other words, there was a fear of research 'bias'. Schwandt (2001) defined 'bias' as the tendency for researchers to impose *a priori* theoretical frameworks or interpretations on the data, marginalise or exclude opposite or alternative perspectives, and draw unjustifiable inferences or generalisations. Schwandt (2001) also contended that qualitative researchers must be particularly aware of the danger of bias given that the nature of fieldwork requires 'the active, sustained, and long term involvement of the inquiry with the respondents' (p. 15). In this context, it became increasingly important to raise some critical questions about the influence of these personal / professional experiences upon my work. In April 2004, I wrote in my research notebook:

How do my existing beliefs about current PE-CPD provision in Greece influence the research process? How are my existing assumptions about a 'restricted' school context implicated in the research process?

Almost a year later, and having being engaged with the relevant literature, I raised somewhat more precise/ detailed questions reflecting the different stage of the research process:

What bodies of research/ knowledge have informed the research design and interview schedules? How are existing assumptions and emerging understandings implicated in the kind of questions I ask during the interviews and the issues I find important or problematic and seek for further clarification?

Analysing the empirical data, I referred back to a crucial question several times:

How do my existing assumptions and understandings foreground or marginalise certain issues and how (based on what 'criteria'?) do I form my interpretations?

Therefore, I engaged in what Seale (2004) described as an 'internal dialogue' in order to ensure that the research findings were presented in as good order as is possible (p. 413). Internal or inner dialogue refers to the value of careful scholarship and commitment to rigorous argument (Seale, 2004). Therefore, the approach taken in the present study was based on the assumption that, despite acknowledging multiple realities that can be constructed by the different participants in the research process, an attempt has been made to be self-critical in order to persuade both myself and the readers to trust the accounts presented in these pages. This view clearly resonates with Seale's (1999) point:

It requires a much more active and labour-intensive approach towards genuinely self-critical research, so that something of originality and value is created, with which people are then always free to disagree, but may be less included to do so because of the strength of the author's case (p. 6).

The research process involved a lot of learning and unlearning for me. Through ongoing reflection I came to know myself both as a person and prospective researcher better and this is viewed as crucial for being able to understand those researched (Pillow, 2003). It is acknowledged that the research could have been undertaken in many other ways. Clearly, as Seale (2004) explains, 'social theory can direct the attention of a researcher to some things rather than others' (p. 412); so other approaches could have been equally legitimate if different ends had been sought. Although this is acknowledged, I would also argue that the approach taken has been fit for purpose.

3.11 Some Ethical Issues

The principles of qualitative research, like the present study, carry a number of ethical issues and a number of ethical safeguards within them (Ryen, 2004). Hammersley & Traianou (2007) categorised ethical principles in five categories that, although not exhaustive, it is believed to cover the main issues and concerns in educational research. These include the following:

1. Harm – Is a research strategy likely to cause harm?

2. **Autonomy** – Does the research process display respect for people allowing them to make decisions for themselves, notably about whether or not to participate?
3. **Privacy** – What should and should not be made public?
4. **Reciprocity** – should research participants expect something in return from researchers and what should researchers offer them?
5. **Equity** – all research participants should be treated equally, in the sense that no one is unjustly favoured or discriminated against.

The present study was based on the premise that the people involved should be treated with respect. Consequently, the research participants were informed thoroughly and truthfully about the overall purposes of the study, through both a formal letter (appendix D) and informal conversations with each one of them. Furthermore, all participants were reassured of their total anonymity and their right to privacy. As previously noted, the names used for the research participants are all pseudonymous. In addition, all the participants were informed that they had the right to withdraw participation at any stage of the process and that the content of the interviews/ questionnaires was absolutely confidential. In the planning phase, the research design was approved by the university's ethical committee. During the research process, all questions were carefully thought and posed so that to avoid causing stress or any other negative feeling to the research participants. Personal issues that appeared to influence the research participants' views and experiences (e.g. being a single parent) were treated with respect, and no follow-up questions were posed in order to explore the matter further. It was only in the case where the research participants openly talked about these issues that these were reported and discussed. Meetings were planned in places and times that were most convenient to the research participants in ways that would not feel pressure to participate.

3.12 What is Next: The Analysis Chapters

The following chapter reports the outcomes of the data analysis process. From this perspective, and similar to the point raised by Sammons et al. (2007), although the outcomes of the different levels of analysis undertaken in

the present study are presented as 'findings', the approach adopted resonates more with the view of developing warranted understandings (Gorard, 2002; Yates, 2003). Furthermore, it is acknowledged that amongst the possible multiple interpretations, the perspectives discussed in this thesis reflect not only the data as reported but also the researcher's personal history as a novice educational researcher; and her social position in the world and her personal qualities.

Chapter 4: Findings

The purpose of this chapter is to report the findings from all three phases of the data gathering process. The chapter begins with the report of the findings from the nine individual case study teachers, followed by a summary of findings from the open-ended profile questionnaire completed by 58 PE teachers; and finally, the individual and group interviews with the CPD stakeholders, including one PE school advisor, three university teachers, one member of the Pedagogical Institute, and one representative from the teachers' national association. Within each section, rich and detailed evidence from the interviews are provided to support the claims made. To maintain confidentiality, the names used for teachers or CPD stakeholders are pseudonymous.

4.1 Case study teachers

As previously reported, nine case study teachers participated in the present study. Information on the Greek educational context was presented in section 2.2. Individual case study reports follow, including information in relation to these teachers' schools and the number of interviews conducted. These reports are structured under the headings of the three research questions. The nine case studies are reported based on these PE teachers' engagement in professional learning. Philip, Mary, Kathy, Clive and Elisabeth demonstrated a strong commitment to professional learning and are discussed in sections 4.1.1, 4.1.2, 4.1.3, 4.1.4 and 4.1.5. The second group of case study teachers, namely Jon, Peter, Margaret and Hannah, who illustrated a significant decline in their ability to learn over the years, are reported in sections 4.1.6, 4.1.7, 4.1.8 and 4.1.9 correspondingly. All case study teachers offer significant insights into the complex process of professional learning in both structured and unstructured contexts.

4.1.1 Philip

Philip is a PE teacher with 17 years of teaching experience. Two research visits were conducted in March and April 2006. At the time of the research, Philip was teaching in a primary school and he was the only permanent PE staff. Two more supply PE teachers were sharing the teaching workload. The school did not have indoor facilities. Outdoor facilities included one basketball pitch.

Philip's career did not begin in schools; upon leaving university, he was appointed as a 'PE teacher' in a higher military training institution, where he worked for 5 years. 12 years ago Philip went into teaching PE in primary schools. Unsurprisingly, Philip recognised that his professional background in the military academy has influenced his teaching philosophy. He claimed that, initially, he relied heavily on 'traditional', command-style teaching approaches, holding high expectations for immediate results and 'demanding' absolute discipline from all his pupils. As the years have progressed, however, Philip argued that his teaching has been transformed; and this is discussed later in this section.

i. How do PE teachers perceive they learn about teaching?

Philip believed that teachers can learn in multiple contexts, both within and outside of the school environment, and as a result of both conscious and unconscious endeavours. He also argued that what teachers learn, and whether this learning impacts upon their practice, is a matter of personal interest and teachers' dispositions towards learning:

There are several occasions of learning in everyday life. It really depends on individual people, whether they are interested in transferring what they learn in their work and whether they want to learn in the first place (Interview 2 – Int2, Sep06, p. 3).

In terms of the process of learning, Philip described how he can pick up a new idea, activity, or curriculum material from different sources, at different points in time, and in an unplanned way, and how, consequently, he 'adjusted new

ideas' on the basis of his own goals, experiences, and contextual conditions (Int2, Sep06, p. 1):

I always make the links with my practice. I always think in terms of my lessons, make sense of what I observe through my practice (Int2, Sep06, p. 3).

Philip recognised his teaching context as an important source of learning. Philip reported engaging systematically and consciously in reflection-on-action to improve the nature and quality of pupils' learning experiences. The most striking example was a pedagogical intervention he initiated in his practice a few years ago. Philip reported that through personal study (and ongoing discussions with his wife who is a primary school teacher), he accessed contemporary theories of human development and learning which advocated the importance of active engagement in the learning process. This approach was in sharp contrast to his existing practice, which was transmission-oriented and teacher-centered. Therefore, he felt an urgent need to change:

I wanted to experiment with one of my classes. I wanted to explore how and what pupils would learn if I gave them more ownership of the learning process (Int2, Sep06, p. 2).

Philip experienced the change process as involving ongoing reflection upon practice that generated new insights about teaching and learning:

It was uncomfortable at the beginning. I reflected and realized that I have to guide and facilitate their learning somehow. I searched for ways (Int2, Sep06, p. 2).

Notwithstanding Philip's comments about personal study, he also recognised that teachers have much to learn from each other:

You definitely learn things when you converse with colleagues. You acquire new ideas and share views (Int2, Sep06, p. 3).

However, overall, Philip was negative about many of the spontaneous interactions he had encountered with other PE teachers within or outside of the school environment. He argued that teachers' discussions were limited in scope and tended to focus on technocratic aspects of PE teaching:

Teachers' discussions largely revolve around practical issues: how to organise our lessons, how to improve pupils' technique, how to tackle lack of resources and facilities in a simple and mechanistic way (Int2, Sep06, p. 4).

Furthermore, Philip was concerned that teachers' discussions remain 'at a superficial level' (Int2, Sep06, p. 3-4) and are not aware of contemporary theories of learning. Two extracts illustrate the point:

I believe that we [PE teachers] rely a lot on the image and do not attempt to reveal what is underneath the surface and explore how and why we teach the ways we teach (Int1, Apr06, p. 7).

Teachers are more interested in sharing teaching 'tips' rather than analysing where their tips or teaching approaches came from and the theoretical foundations based on which this knowledge has been generated (Int1, Apr06, p. 7).

Furthermore, Philip reported rarely having the opportunity to consciously and systematically share what he knows and does with his colleagues in his school:

Our discussions focus on administrative issues and fixtures. Who is going to take the kids to the games, how we can cover each other, and all those sort of things. We do not talk about how we are going to teach this unit and why. We do not talk about purposes or the direction of our actions (Int2, Sep06, p. 5).

Philip explained that working with non-permanent PE staff has "de-motivated both them and myself to work together and develop a shared plan for the school" (Int2, Sep06, p. 5). Philip later explained:

These teachers [supply teachers] deal with a number of challenges outside their teaching. They experience serious financial or other administrative problems. They still have to solve and secure their job and they are wearied. They have to run from one school to another. They do not have any incentive to engage in these activities (Int2, Sep06, p. 6).

In addition, Philip argued that PE teachers' diverse interests and commitments influence the nature and quality of teachers' interactions within the school or during a CPD activity:

PE teachers do not always share the same views or interests, or passion.What is crucial and urgent for you, might not concern them. They are not bothered. So, it doesn't always make sense to talk and share ideas (Int2, Sep06, p. 5).

ii. What is the nature and quality of existing PE-CPD provision?

In relation to Philip's views on existing PE-CPD provision, Philip argued that state-funded professional development opportunities are limited in number; and that there is a 'lack of plurality of learning opportunities' (Int1, Apr06, p. 1) that can address teachers' diverse learning needs. Furthermore, Philip described a selection process that appears to exclude many teachers from CPD participation:

The Ministry of Education sends the application pack. When they have large number of teachers interested in the same course, which is very likely for some courses, they turn to a draw. This is a very unclear process if you ask my opinion (Int1, Apr06, p. 1).

From Philip's perspective, the content of current PE-CPD provision appears to emphasise short-term training needs, skills and activities; focusing in an unreflective way on what can be done in practice:

With limited exceptions, PE-CPD affords narrow guidelines: 'here are 10 ways of teaching these skills; this is how they are supposed to be done, have a nice day'. I do not want this type of CPD (Int1, Apr06, p. 6).

Philip felt that this CPD orientation has serious consequences for pupil learning:

If teachers do not understand the process of learning and other fundamental pedagogical theories, no matter how many ideas they can acquire, they will fail to fulfil their purpose: that is, to support pupil learning (Int1, Apr06, p. 7).

Furthermore, from Philip's perspective, teaching is a very complex process that requires teachers to be engaged in CPD that involves critical discussions

about the purpose and direction of physical education. This kind of CPD, Philip argued, is absent from current PE-CPD provision:

I feel that CPD does not support teachers to develop this sense of direction and deeper understanding of PE purpose. So, we have professional developers haphazardly transmitting ideas and the PE teachers acting alone in the contexts of their schools without knowing why they are doing what they are doing (Int1, Apr06, p. 2).

Philip illustrated his argument with a metaphor:

It is like 'breaking the stones without knowing why we break them'. What is the aim of our actions? What kind of citizens do we want to create? (Int1, Apr06, p. 2).

Furthermore, Philip challenged 'passive' learning opportunities, where teachers:

Sit, listen, go back to school, on the way forget half of what has been argued in the CPD and do not change their practice, or if they do, they do it passively without any critical elaboration (Int1, Apr06, p. 5).

Philip also pointed to limited opportunities for collegial interactions or dialogue in PE-CPD (Int1, Apr06, p. 5). As a local tutor himself, Philip has attempted to 'provide teachers with opportunities for interactions' (Int1, Apr06, p. 6); yet pointed to the one-shot nature of provision that prevented these from being sustained and meaningful:

'I believe that courses are too short. Whatever professional developers want to present, they have to do it fast. They rush through a topic. So, we do not talk about it; we do not share' (Int1, Apr06, p. 1).

Crucially, Philip commented that teachers lack agency or power to identify and pursue CPD opportunities that meet their specific needs:

Teachers participate in courses in which content, form, and substance have been pre-determined by professional developers (Int1, Apr06, p. 5).

iii. What are the features of effective PE-CPD?

In sharp contrast to his personal PE-CPD experiences, Philip argued that CPD is effective when the content is grounded in research on effective

practice (evidence-based CPD) and evidence of impact is available for elaboration and discussion:

I need CPD that shares what has been found, through research in teaching and pedagogy, that works in other contexts and thorough, scientific explanations about why we [delegate teachers] should use this knowledge (Int1, Apr06, p. 3).

Moreover, Philip valued opportunities that involve teachers developing personalised and collective knowledge:

CPD needs to provide teachers time to work alone or in groups to develop philosophy and generate views (Int1, Apr06, p. 5).

Philip talked of the potential of multidirectional learning for all people involved in CPD, including both teachers and professional developers:

Professional developers have many things to learn when they are willing to listen to and discuss with teachers (Int1, Apr06, p. 5).

Furthermore, Philip expressed a need to be actively engaged in debates regarding the strategic design, educational objectives, and implementation of physical education in schools:

I want to talk about PE objectives, why we have these objectives and proceed with meaningful discussions about how we can achieve them (Int1, Apr06, p. 2).

Finally, Philip felt that effective evaluation of CPD could enable professional developers to receive feedback on how the learning experience has affected teachers' work, ensuring that professional developers are held accountable for their actions:

Professional developers need to evaluate the impact of CPD upon teachers. They need to view this process as a vehicle to improve their practices (Int1, Apr06, p. 7).

iv. Summary

In summary:

- Philip demonstrated a strong desire to learn in order to facilitate better pupil learning.

- Much of his learning was self-initiated, by drawing upon cultural/theoretical knowledge and by experimenting in the context of his practice. Working in a primary school – and interacting with his wife who is a primary teacher – was important for accessing codified knowledge that challenged his practice.
- Philip believed that teachers can provide useful, practical information to each other; however, he argued that teachers' interactions, as currently experienced, did not address fundamental issues about pupil learning.
- The working conditions in Greek state schools, for Philip, inhibited meaningful teacher collaboration.
- Philip argued that existing PE-CPD provision is limited in number, excluding many PE teachers from participation; and skills-oriented (technocratic), missing the links with educational purposes and key theories that underpin – or should underpin – teachers' practices.
- Philip also pointed to an apparent lack of needs identification processes and the short duration of PE-CPD that prevents teacher collaboration.
- Effective PE-CPD opportunities, for Philip, provide new, research-driven knowledge that is further elaborated by the teachers – that is, opportunities for active and interactive professional learning opportunities.
- Systematic evaluation of PE-CPD activities is essential for Philip in order to improve future provision.

4.1.2 Mary

Mary has been teaching for more than 20 years in state secondary schools and she described her learning path as 'multifaceted' (Int2, Apr05, p. 13). Early in her career, Mary demonstrated a strong desire to learn and she was supported by her family – both financially and emotionally - to pursue her professional inspirations. Recently, Mary successfully completed an MSc in Education and described this as a meaningful and 'transformative' experience:

I believed that I had a curtain in front of me and that someone pulled it aside and I saw my teaching and other related educational issues with new eyes (Int2, Apr05, p. 2).

At the time of the study, Mary had just enrolled on a PhD degree and was positioned in an upper secondary state school in Athens with a technical orientation and lower academic achievement than mainstream schools. Mary drew attention to limited/ inadequate PE facilities as a significant factor that limited her ability to not only implement innovations but also provide a wide range of activities to meet the diverse needs of her pupils:

This lack of facilities, you can see it is only one outdoor basketball pitch, well, in asphalt really, is a fact, which I believe is very important because it restricts my choices over the activities I can teach and the changes I can introduce (Int1, Apr05, p. 1).

i. How do PE teachers perceive they learn about teaching?

Despite these constraints, Mary argued that teachers learn all the time from experience, within the contexts of their school and classroom environment:

Every time you teach you have different pupils, the class is different; these same pupils might be different from day to day. This situation affects our [teachers'] work and we need to adapt and learn (Int2, Apr05, p. 13).

Mary further suggested that the teachers themselves change and develop, which gives them the opportunity to elaborate on and examine their teaching in different ways:

I develop and I learn every day. Every day, I might see my teaching and other experiences in different ways and with different eyes than the previous days. Today I might be ready to work in my mind something that I wasn't ready for yesterday. I might see something new. I do not feel that we [teachers] remain the same (Int2, Apr05, p. 13).

Mary felt that her learning was, at times, radical in that it forced her to look backwards in order to move forward. Mary described part of this process:

My learning wasn't always linear....sometimes something might happen that brings everything upside

down.I do not think that I gradually change the ways I think. Sometimes change is vertical, as if I go to the other side of a river and I take a totally different direction (Int3, Sep05, p. 6).

Mary felt that it was vital to her professional existence to be challenged to think in innovative and different ways in order to bring fresh ideas and challenge existing practices:

If teachers are not challenged, if they stay in their schools, their reflection, their thinking and their teaching will be restricted to the issues encountered in their schools. They will not be able to expand their work and thinking (Int3, Sep05, p. 7).

Mary described learning from books, journals, television, and other sources:

Teachers have many sources of learning: social gatherings, conversations, TV programmes, a game that you may watch, social exhibitions, dinners; all these can be reasons for learning. For me, all these occasions are reasons for syllogism, thought, and reflection (Int2, Apr05, p. 13).

Furthermore, Mary stressed that meaningful interactions with knowledgeable colleagues is an important source of learning for teachers because conversations are grounded in and relevant to their practices:

My husband is a PE teacher and we discuss the whole time. We raise important questions, we discuss our challenges, we explain how to use some teaching approaches, we bring our experiences in these discussions, and we discuss practical issues. We help each other a lot (Int3, Sep05, p. 10).

In that context, Mary made a distinction between professional dialogue which is largely descriptive and the kind of meaningful collegial interactions that:

Teachers share not only how but also why they have taught a specific teaching unit in a specific way taking into account their students and their contexts (Int3, Sep05, p. 10).

Mary stressed the issues of trust and sharing a common belief system as fundamental in meaningful teacher interactions:

Teachers can effectively communicate their ideas and practices to colleagues when they share a common belief system, they know each other, and their views do not fundamentally contradict (Int2, Apr05, p. 5).

However, Mary believed that teachers in Greece work in schools with a well-established culture that promotes isolation rather than meaningful interactions or genuine collaboration amongst teachers:

Teachers do not collaborate. Teachers do not know how to collaborate. They haven't learned how to provide feedback to each other, to make judgments about teaching quality and teaching practice; they find it weird if someone asks them to do so (Int2, Apr05, p. 5).

ii. What is the nature and quality of existing PE-CPD provision?

In terms of her 'formal' CPD experiences, Mary had pursued a wide range of structured learning opportunities within and beyond PE. These ranged from sport-related topics (i.e. sport rules, organisation of sport games, refereeing) to broader educational programmes on curriculum development, new technologies, cultural anthropology and cross-cultural education. Mary made clear that this was a personal choice and commitment – mainly financial – as limited state-funded PE-CPD opportunities are available to teachers:

All my CPD experiences were the result of my personal initiation and desire to learn....and I paid for the majority of them (Int2, Apr05, p. 10).

The most important characteristic of current PE-CPD provision is that it is non-existent (Int2, Apr05, p. 10).

Mary believed that the majority of her PE-CPD experiences entailed practical experiences for teachers, either in the form of lesson observations or teachers actually participating in practice as if they were students (Int3, Sep05, p. 4). However, in the majority of the cases, Mary explained that PE-CPD providers invite 'expert' coaches who are expected to deliver to teachers effective ways to instruct skills. For Mary, these experiences were neither innovative nor challenging for experienced teachers:

I went on a PE-CPD last week.They [coaches] demonstrated fundamental skills and how to teach those skills in the same ways I learnt volleyball 20 plus years

ago in the university.This programme did not add something new (Int3, Sep05, p. 3).

Mary also stressed that this programme was unhelpful because professional developers/ coaches drew upon unrealistic situations of practice to demonstrate effective PE:

The session was practical, but they [professional developers/ coaches] demonstrated these skills with athletes who had highly developed motor skills! We did not get the chance to see how to teach those skills with real students. We didn't see the complexity of a real lesson. It was very disappointing (Int3, Sep05, p. 8).

Mary felt that this kind of PE-CPD is inappropriate for teachers and added: 'we need different things than what an expert coach can teach us' (Int3, Sep05, p. 1). Mary felt that many professional developers were never asked to go outside their comfort zone and deliver what the teachers want to learn:

CPD provision is haphazard. CPD providers follow their own indulgences and deliver sessions according to what they know and are able to do. I don't think there is expert knowledge out there to support teachers on their issues and concerns (Int2, Apr05, p. 15).

Furthermore, Mary argued that existing PE-CPD provision fails to address both PE teachers' real needs and curriculum expectations:

The national curriculum fosters teachers to support pupils' lifelong participation in physical activity. It refers to personal and social development. However, I do not think there are CPD programmes to support teachers to understand and to implement those objectives (Int3, Sep05, p. 12).

In terms of the overall CPD design, Mary stressed that PE-CPD opportunities are piecemeal, brief and non-systematic; lacking a coherent strategic framework or planning:

CPD programmes are haphazard. They are not delivered based on a plan and professional developers are doing whatever they want and can do (Int2, Apr05, p. 15).

My learning wasn't continuous in terms of CPD. There is no plan in place to guide me. CPD participation was haphazard (Int3, Sep05, p. 6).

iii. What are the features of effective PE-CPD provision?

Mary believed that the fundamental purpose of effective CPD provision is to enable teachers, individually and collectively, to act as informed critics of policy documents, established school cultures, dominant teaching practices, and emerging conceptions on effective teaching and learning:

PE teachers need to have the ability, as a result of CPD participation, to approach an emerging or existing theory or practice from multiple perspectives, understand its complexity, draw some conclusions and share those conclusions. In other words, they need to develop their ability to be critical and analytical. When this happens to me, I know that the CPD programme has been effective (Int2, Apr05, p. 9).

Mary highlighted that effective CPD needs to have a deliberate focus on fostering changes in teachers' practices:

Effective CPD is the one that impacts upon your practice. It makes little sense to go to CPD and then go back to school and reproduce existing practice (Int2, Apr05, p. 9).

In this framework, Mary believed that effective CPD provision should meet a number of criteria, including a concise and meaningful theoretical component, which is carefully selected to challenge teachers to think differently and broadly about the purpose and practice of their work:

'Effective CPD entails theory but in a right dose. Theory that makes teachers think in terms of their practice. Theory that is meaningful to teachers and which can be readily embedded in their practice. Professional developers do not have to bombard teachers with theory that is too abstract or irrelevant. Simply because they [teachers] will throw everything away' (Int2, Apr05, p. 3).

Equally importantly, Mary argued that any professional development programme must relate the theoretical element to concise examples or 'models' of practice to support conceptual understanding and 'illustrate some of the ways a new approach can be implemented in practice' (Int2, Apr05, p.

4). Mary also implied a need for teachers' active engagement in the learning process:

Teachers have different needs, school conditions and personalities andthey need to find ways to accommodate these ideas in the specific conditions of their schools (Int2, Apr05, p. 4).

Effective CPD should both provide us with new ways of teaching, but we [teachers] should not get into the logic of copying everything as they are. We need to think and change them according to our pupils' needs (Int3, Sep05, p. 5).

For Mary, effective CPD should entail both theory and practice in ways that match the overall CPD purpose:

If the aim of the CPD is to discuss PE purposes and goals, it should be theoretical. When the aim is to support teachers to understand how to achieve these goals in their practices, which is the most important thing, then there is a need to include a practical element (Int3, Sep05, p. 4).

In addition, Mary stressed the importance of research-based CPD:

They [professional developers] have to share emerging research-based findings that facilitate our work and make it more 'safe' and meaningful to our pupils. We [teachers] need to be aware of this new knowledge and we need to get adequate support to put it in our practice (Int2, Apr05, p. 4).

Mary also stressed that teachers 'need structural guidance and support in order to effectively implement CPD knowledge into practice' (Int3, Sep05, p. 8):

It is very importantafter some time, someone to come and find me in my school and ask me what have I done with this knowledge (Int2, Apr05, p. 5).

Mary stressed that teachers should not be left alone under the assumption that they will be willing and able to introduce changes in their lessons:

I strongly believe that teachers should be guided. You [CPD providers] cannot leave us alone and think that we will find everything alone (Int3, Sep05, p. 8).

In that framework, Mary challenged established perceptions of CPD as out-of-school, top-down, structured interventions:

When I meet with a colleague from another school and we teach together a lesson and exchange opinions gained through teaching experience, is considered CPD. When the school advisor visits a school and spends 3 hours observing lessons and talking with teachers, is considered CPD (Int2, Apr05, p. 9).

For Mary, multiple forms of engagement in learning would enable teachers to 'find the ones that meet their needs' (Int2, Apr05, p. 11). Mary also added that:

In this way, teachers will understand that knowledge can be approached in different ways and can subsequently afford more meaningful and varied learning opportunities to their pupils (Int2, Apr05, p. 12).

Mary also recognised that teachers have important experiences in their individual contexts that can be meaningful to other teachers if shared:

I could share what I know with colleagues; and in the same way, many colleagues have extensive experience and specialisation that I would value (Int2, Apr05, p. 12).

Mary suggested that teachers need to engage in ongoing structural learning opportunities throughout their careers in order to be flexible and responsive to change and innovation:

I believe that working habits acquired in the early stages of teachers' careers tend to be resistant to change. Therefore, CPD needs to be ongoing to shape teachers' views, support them to renew their practice and be open to change and innovation (Int2, Apr05, p. 4).

iv. Summary

In summary:

- Mary was a teacher with a passion for learning, and with family support, she pursued a wide range of CPD and PE-CPD activities.
- Although Mary argued that learning in the context of practice is embedded in teachers' work, she stressed the importance of

interacting with new ideas and concepts in order to expand her understanding.

- Mary also acknowledged that teachers' interactions are important because they are grounded in and relevant to teachers' practices. Mary valued professional conversations amongst teachers who know each other well and delve into an examination of existing practices.
- Mary argued that genuine teacher collaboration occurs rarely because of established school cultures that prevent it.
- With limited and unsystematic PE-CPD opportunities, Mary reported taking charge of her own professional development and funding extensive CPD participation.
- Mary felt that her PE-CPD experiences focused – arguably narrowly – on skill development, in unrealistic situations of practice, ignoring the complexity of teaching and learning in schools.
- For Mary, PE-CPD was failing because of a lack of CPD experts who would 'get outside their comfort zone' and pay attention to teachers' real needs.
- Mary suggested that effective PE-CPD supports teachers/ learners to become critical of structures, policies, and their own practices; through multiple learning opportunities in varied contexts that provide new and challenging knowledge, opportunities for sharing, and ongoing support.

4.1.3 Kathy

Kathy was a PE teacher in her thirties. Two research visits were conducted (Mar06 and Apr06). Kathy moved on to another position in September 06 and the third interview, which was planned to explore Kathy's views on the teacher learning process, was not conducted.

At the time of the research, Kathy had five years of teaching experience as a supply teacher; and described herself as a PE teacher with 'eagerness in the pursuit of effective teaching and learning' (Int1, Apr06, p. 6). In particular, Kathy described her attitude to learning as being 'receptive to new ideas and

emerging teaching approaches' (Int1, Apr06, p. 6) and expressed a central belief in ongoing professional learning:

Teachers have to keep learning and reconsider their practice, because knowledge is evolving. For example, since the 1980s things have changed dramatically and some of the fundamental principles are quite different today compared to few years ago, isn't that right? (Int1, Apr06, p. 4).

i. What is the nature and quality of existing PE-CPD provision?

According to Kathy, existing CPD is largely theoretical in nature and has limited value for PE teachers:

Many CPD programmes are theoretical and do not provide the kind of support we [PE teachers] need in order to actually grasp a new concept and change our practices (Int1, Apr06, p. 4).

They might talk about pupils and how teachers can approach them, how to plan a lesson, but they are all too theoretical and they are not very useful for PE teachers. There are very few PE-CPD courses on teaching and learning in a PE environment (Int1, Apr06, p. 4).

Kathy also stressed that there is a 'lack of plurality of meaningful PE-CPD courses from which PE teachers can choose the ones that better meet their needs' (Int1, Apr06, p. 5). Furthermore, Kathy also argued that the majority of PE-CPD programmes focused on transmitting teaching skills and knowledge rather than analysing or explaining the process of learning itself:

PE-CPD, as I have experienced it in its majority, is oriented towards teaching skills rather than what we [PE teachers] can achieve through PE. The practical bit, the lecture, the findings, they are all concerned with skills. It reminds me of the politicians. They talk about the economy, how they can improve economic standards and figures rather than how to improve the quality of our lives (Int1, Apr06, p. 6).

In addition, Kathy criticised the lack of follow-up support or any kind of direction to guide teachers' learning after the end of the CPD. As a consequence, Kathy explained that it is down to individual teachers whether they will be able or willing to apply new learning into practice:

After the end of any CPD, I might come up with some new ideas and tips for my lessons. I enhance my teaching repertoire. But, I confess that I do not do that all the time. I might just forget about it. They [professional developers] do not give us direction in terms of what to do after the end of the session. They do not stimulate us to go to a library, for example, in order to further explore the CPD content (Int1, Apr06, p.1).

Lack of support was also evident in the following example. Kathy noted that she became familiar with pupil-focused approaches to teaching and learning through participation in a CPD course. However, Kathy expressed a deep concern of how to effectively implement this approach in practice, indicative of the lack of supportive structures to initiate and sustain change in her practice:

Pupil-centred teaching approaches sound great in theory,....but we [teachers] have our objections, because it is very difficult to implement it in practice. It is very difficult to progress pupils' learning (Int1, Apr06, p. 3).

On a positive note, Kathy felt 'privileged' because she participated in a 'remarkable', 'innovative' (Int1, Apr06, p. 1), and, it would appear, highly effective CPD programme in Olympic Education. This programme was unique in the Greek CPD context. It lasted for two years and Kathy strongly believed that it was fundamental to her professional development:

We were all relatively young teachers, we were receptive, ready to engage in ongoing learning, this programme was a catalyst to our development (Int1, Apr06, p. 6).

Kathy found this programme effective for a number of reasons. Firstly, it afforded an ongoing flow of information and resources throughout the duration of the two years:

We were under close surveillance in that they gave us loads of information, methods to achieve our goals, and many incentives to design and implement school projects (Int1, Apr06, p. 2).

Secondly, for Kathy, this programme was innovative in that it afforded a number of follow-up courses and seminars:

We attended many courses and seminars, the first one was for a whole week, then we went to some for 3 days or just one-day seminars (Int1, Apr06, p. 1).

Kathy felt that the mode of delivery was also innovative, featuring a focus on collaborative learning, independent and creative thinking:

We worked for the first time on projects and round tables, we worked together as a team; in groups we had to solve problems or work together on a specific topic. It was very interesting. I learnt so much! (Int1, Apr06, p. 2).

This programme also had a strong practical element:

The seminars were very different than the traditional lectures. 50% of the time was practical. The tutor was demonstrating in practice the new teaching approach advocating during the lecture. This experience was invaluable (Int1, Apr06, p. 2).

In addition, Kathy valued the opportunity to learn how to set specific goals for pupil learning and evaluate the nature of outcomes:

They helped us understand how to set goals for our pupils, and how to monitor our work, and explore whether our goals have been achieved or not and why (Int1, Apr06, p. 1).

The impact of this CPD programme was decidedly different from the impact of 'traditional' CPD experiences. Kathy reported enhancing her ability to think holistically about the teaching and learning process, setting specific goals for pupils' learning and evaluating the outcomes of her endeavours:

I started figuring out how complex and meaningless teaching PE can be if you do not have specific goals for the pupils. I now set clear goals for my pupils, I work hard with them to achieve them, and I evaluate the outcomes (Int1, Apr06, p.1-2).

Through active involvement in the learning process, Kathy understood the importance of teachers' creativity and ability to generate practical knowledge of effective teaching and learning and reflect upon their actions to improve provision:

I understood that teachers have to be creative, they have to rely on their own ability to reflect upon each lesson and create new ways of teaching in order to support pupils to learn. This programme enabled me to trust my abilities, be creative, and constantly develop my lessons. My

lessons are no longer boring and repetitive (Int1, Apr06, p. 3).

ii. What are the features of effective PE-CPD provision?

Kathy argued that effective PE-CPD needs to foster meaningful collaborative practices and facilitate fruitful interactions amongst teachers:

Q: You said that interactive/social learning is very effective and you asked for this type of CPD. Can you explain why?

Kathy: Yes, because it involves team work, close collaboration, exchange of views and experiences. All these are elements of school life. These are elements that we [teachers] have to promote through our lessons. Both teachers and pupils have to learn to trust their own abilities and work with others. Therefore, teachers have to learn in the same way (Int1, Apr06, p. 3).

Furthermore, Kathy suggested that CPD should provide opportunities for teachers to share their knowledge:

There are teachers out there who are innovative in their teaching. Something that is relatively new in terms of theory, might be already tried out somewhere. This knowledge and understanding has to be shared in CPD (Int1, Apr06, p. 4-5).

Kathy felt that practical CPD is also an important element of effective CPD provision. For Kathy, in all respects, practical CPD needs to be 'realistic' and provide innovative ways of teaching PE within the framework of existing school contexts:

I believe that CPD would be effective if they gave us ideas on how to develop our lessons, with new teaching methodology, within the existing school facilities (Int1, Apr06, p. 7).

In terms of content, effective CPD needs to be challenging for all teachers participating in the programme' (Int1, Apr06, p. 6).

Finally, Kathy talked about CPD opportunities that provide teachers with both the conceptual and practical tools to engage in self-evaluation; thinking about the impact of CPD upon their practice and pupil learning.

We need to learn, through CPD, how to self-evaluate our work; how to put our practice under scrutiny, and reflect on the nature of impact of our learning upon our practice. Do we actually implement new ideas, new theories and teaching approaches in our practices as a result of CPD, how and why? Do we adapt it and how? We need to develop this capacity for self-control and self-evaluation (Int1, Apr06, p. 5).

In this respect, Kathy argued that teachers could increasingly become more independent learners that engage in continuing improvement.

iii. Summary

In summary,

- Kathy argued that existing PE-CPD provision is largely theoretical in nature; lacks plurality of courses from which teachers can pursue the ones that best meet their needs; does not provide sufficient support for teachers to implement new knowledge into practice; focuses on a technocratic approach to teaching and learning; and is based on transmission-oriented principles.
- Drawing upon an effective CPD experience on Olympic Education, Kathy suggested that effective PE-CPD is that which: fosters teachers to share their existing understandings and to engage in meaningful collaborative practices; offers new ways of thinking and realistic practical experiences to support teacher change; and enhances teachers' ability for self-evaluation and independent learning.

4.1.4 Clive

At the time of the first research visit, Clive had been teaching for 15 years in state schools. Two interviews were conducted with Clive (Mar06 and Sep06). Clive shared his teaching workload in two primary schools in the same locality. Both schools had a small indoor space for dance, and one outdoor (asphalt) pitch used for basketball/ volleyball/ football. Clive graduated from the university in 1987, specialised in volleyball and followed both a teaching and coaching career path. At the beginning of his teaching career, Clive

received no structural support to facilitate his induction into teaching. Furthermore, he reported being transferred to different schools each year and, thus, failing to develop effective communication links with pupils and parents (Int2, Sep06, p. 3). Clive also felt that the quality of his teaching was compromised because of inadequate school facilities: he reported 'teaching in school corridors on rainy days' (Int2, Sep06, p. 3).

i. How do PE teachers perceive they learn about teaching?

In the early stages of his teaching career, Clive knew that he was facing difficulties but he did not seek formal, codified knowledge to help overcome them. He felt he had acquired 'more than enough knowledge in the university' (Int1, Apr06, p. 7) and had sufficient experience upon which to draw from working with young people in coaching settings. Instead, Clive attempted to make sense of what should and could be achieved in the context of a 'real classroom':

For the first years after university, there was some stabilisation in terms of new knowledge. I did not seek something more. I wanted to understand what is going on in schools and in my practice (Int1, Apr06, p. 7).

Clive was constantly seeking ways to motivate, enthuse, and engage pupils in PE and learning. He described this process as involving a kind of 'reactive' learning, in-context, in action:

I did not have enough experience at the beginning and I had many problems. How should I handle specific cases and pupils? I do not think that I know the answer now, but because I've been teaching for many years, I know what works, and I've been through many situations, where I had to act immediately and had to find a solution (Int2, Sep06, p. 3).

Clive argued that he had moved away from 'traditional', skills-oriented PE lessons and claimed that this understanding was developed by observing and analysing pupils' reactions:

Every time I introduce something new, I observe how my pupils react. I try to see whether they like or not and why. If I focus on technique, I lose their interest (Int1, Mar06, p. 4).

After several years in teaching, reading specialised books on primary PE represented an important starting point in order to find and 'transform' ideas that would work with and appeal to the particular age group he was teaching:

I've learnt many interesting games from books which focus on the learning and teaching of primary school children. I have tried them [games] and transformed them and I know what works now with my pupils (Int2, Sep06, p. 3).

Clive illustrated how he constantly negotiated and actively re-constructed any new ideas in order to make them personal and relevant to his teaching context and practice:

I tried some of the ideas All pupils were very positive and enthusiastic. After a few lessons, I changed some things, I tried out ideas some colleagues had given to me, I combined that with some play games I already knew. I actually made a cocktail, which I refined through practice (Int2, Sep06, p. 1).

Furthermore, Clive sought new ideas and knowledge from other PE teachers in order to provide a wide range of activities for pupils:

I believe that I gained a lot by interacting and talking with colleagues. They gave me new insights and a lot of practical support, advice and guidance on aspects that I was not exactly an expert on (Clive, Int2, Apr06, p. 5).

Clive provided specific examples:

From a colleague, I learned how to teach aerobics. She [colleague] gave me some key tips that I did not know and it went fine. From another PE teacher, I got ideas on track and field in this school yard. He gave me ideas of how to set up running competitions and I used it and it was again very successful. I've also refreshed my knowledge on gymnastics from another colleague (Int2, Sep06, p. 5).

Although Clive stressed the importance of learning from colleagues, he also pointed out that it was rare to have the opportunity to consciously and systematically learn from/ with colleagues in the school setting:

We work together when we have to set up a sports day, or whatever else is in the school calendar. We do not actually share any practice (Clive, Int2, Apr06, p. 6).

Furthermore Clive, although a permanent member of staff, was obliged to teach in two schools in order to supplement his teaching workload. This caused some problems as he found he lacked the time and motivation to engage in meaningful discussions:

We do not collaborate and this is a huge problem. I could use the time to move in more effective ways. But, to be honest, I do not have the incentive to do that. Each year I teach different pupils and this does not motivate me (Int2, Sep06, p. 6).

ii. What is the nature and quality of existing PE-CPD provision?

Clive expressed some concern that at the time of the research, there was limited structured learning support available to teachers:

I believe that CPD programmes are not enough. I graduated 16 years ago and I know that there have been many changes to PE and sport internationally, and we need to keep up-to-date, but we have not so far (Int1, Apr06, p. 1).

In addition, Clive explained that there appears to be limited coordination and planning by the providers in order to make CPD courses available to all teachers:

I heard there was a very good conference last weekend. My friend told me it was brilliant for primary PE teachers.I wasn't aware of this seminar and it is a pity that I missed it. Things are not very well organised as you can see. I believe that all this CPD mechanism should be more professional (Int1, Apr06, p. 1-2).

However, Clive stressed the negative consequence of a limited PE-CPD system:

If we [PE teachers] do not get new ideas, we keep doing the same things which is detrimental to both the quality of our work and our pupils of course (Int1, Apr06, p. 4).

Furthermore, Clive suggested that the limited CPD activities available are designed and implemented on the basis of professional developers' perceptions of what is valuable professional knowledge in PE, rather than stemming from what teachers themselves identify as important:

CPD is centrally designed. CPD providers inform us about a specific course or programme and we attend it. Most of the times these courses are boring. I do not feel we learn many things (Clive, Int1, Apr06, p. 1).

Clive was also concerned about the haphazard and repetitive nature of current provision:

Most seminars are boring because [PE teachers] go there just because we go, we are told to go! We [PE teachers] might listen things that we've heard some years ago. It is pointless. They [seminars] do not have any sense of continuity from previous seminars. Each seminar is irrelevant, disconnected to anything else. I do not believe that we [PE teachers] do anything different as a result (Int2, Sep06, p.9).

Clive also felt that existing CPD courses fail to appreciate the complexity of teachers' everyday lives and, thus, fail to support their work:

I think there is a general crisis in the society. The family bonds are loosening, our work is becoming more complex and teachers are going through a crisis. I don't believe that existing seminars can support us [teachers] in schools (Int1, Apr06, p. 5).

For Clive, practical CPD opportunities were perceived as the most likely to be effective, including active participation by the teachers- delegates. Clive drew upon a particularly effective CPD activity he had experienced a year before the first case study visit:

In creative dance CPD, we participated as students and we saw in practice some of the problems or difficulties we could encounter in practice with the pupils.... and this is a very helpful approach (Int1, Apr06, p. 2).

However, Clive reported that the majority of his previous practical CPD experiences were unrealistic and inapplicable in the context of his work:

This practical session in volleyball was very technical and specialised and most of the things they [professional developers] demonstrated were inapplicable in schools, with our pupils, because they [professional developers] had young athletes who demonstrated the technique. We could not see and discuss the real problems emerging while teaching. So, I think those teachers who were not specialised in volleyball, they did not understand in full

how to teach and improve pupil learning (Int1, Apr06, p. 3).

Finally, Clive pointed to a lack of follow-up support:

You might get some new ideas in the seminar but I do not think they [seminars] can afford much more to teachers. It goes down to individual teachers if they want to extend this knowledge and make these ideas work (Int2, Sep06, p. 2).

iii. What are the features of effective PE-CPD provision?

Clive strongly believed that effective CPD should engage teachers in active and interactive learning experiences, during which teachers are encouraged to 'study and experiment with a range of ideas' (Int1, Apr06, p. 3) and generate knowledge that is relevant to their needs and embedded in their experiences:

We [PE teachers] need to be activated. We are not passive beings who can sit and receive the messages sent from the professional developers. We can generate very meaningful suggestions that are grounded in our experiences and which are realistic (Int1, Apr06, p. 3).

Clive suggested that effective CPD activities are those which build teachers' capacity for creative and analytical thinking in the context of their everyday practices:

Effective CPD must make teachers think and take an analytical stance upon their practices. We need to be able to think and suggest alternative avenues to what is suggested by professional developers (Int1, Apr06, p. 5).

Moreover, Clive argued that teachers can clearly benefit from collegial interactions in CPD events:

I believe the best approach is to work in groups, because all teachers have their own ideas and experiences, and if we work as a team we can take a lot of ideas from the group, from other people which can actually put into practice (Int1, Apr06, p. 3).

Clive also claimed that increased opportunities for discussion would be beneficial not only for teachers but also for professional developers, who

'would get useful feedback' from teachers' knowledge and ideas (Int1, Apr06, p. 3):

They [professional developers] present the ideal; we [PE teachers] would make them understand through professional dialogue the other side of the coin, which is our school realities (Int1, Apr06, p. 5).

Clive felt that CPD providers need to put some pressure on teachers to encourage them to think differently about CPD. Clive was an advocate of follow-up meetings because he felt that they can support teachers to initiate changes in their practices:

They [professional developers] should encourage us to work in teams on a project, on an area that concerns us and then we should meet again, after a few months and discuss the results. If we go just for a day, even if we listen to some interesting ideas, nothing will happen if we [PE teachers] do not feel the pressure and the responsibility to produce something as a result (Int1, Apr06, p. 5).

Clive had a specific suggestion to make. He located teachers at the centre of discussions about curriculum development, educational practice, and subject matter:

We could work on the National Curriculum, to make it more relevant to our needs and our schools. We could work in teams and produce some ideas, some lesson plans, some curriculum material (Int1, Apr06, p. 6).

Clive felt that 'there is always available time for this kind of CPD' (Int1, Apr06, p. 6) as long as both teachers and professional developers recognise its significance for the educational process. Clive also stressed that a practical element is always important to effective CPD, as long as it is realistic and embedded in teachers' working structures:

If I was a professional developer, I would add the practical element in a very realistic form. PE teachers would be the students, 20-30 of them like a normal classroom, and I would teach them in a school yard, like we teach, with the limited resources we have available. I would set clear goals for them and then we would discuss the teaching approach (Int2, Sep06, p. 6).

For Clive, however, the most important aspect of effective CPD provision is the needs-identification process. He stressed that CPD providers need to ensure that the provision is relevant to teachers' needs:

I believe that if they [CPD providers] asked our opinion, our views, they would be able to target CPD appropriately and we would participate in relevant courses (Int1, Apr06, p. 1).

Clive also believed in a constant interaction between teachers and professional developers in the form of resources and other form of communication. In this way, Clive explained, teachers could be up-to-date in recent developments and receive ongoing support in their practice.

Professional developers need to give us resources all the time.We could be in ongoing interactions through the internet, where we could share with them or other teachers effective teaching ideas and methods (Int1, Apr06, p. 4).

iv. Summary

In summary:

- Clive felt he learnt all the time. Initially, Clive aimed at developing a contextual understanding of teaching PE; yet later searched for new ideas in order to do different things and keep pupils interested in PE.
- Clive reported that he 'acquired' new ideas in many different contexts and situations (e.g. books, CPD, colleagues), which, however, he better understood – and modified – in the context of practice, through use and by observing pupils' reactions.
- Clive argued that colleagues-friends provided tips and ideas that could be readily implemented in practice; however, working conditions inhibited him working collaboratively with other teachers.
- Clive argued that existing PE-CPD provision is limited, leaving teachers behind PE developments and compromising the quality of their work.
- Furthermore, Clive stressed that most PE-CPD activities were boring and repetitive, lacking any sense of continuity from previous provision.

- Clive argued that practical PE-CPD experiences were offered; yet appeared to be conducted in unrealistic situations of practice (i.e. working with young athletes rather than students).
- For Clive, effective PE-CPD is that which: offers teachers opportunities to experiment with new ideas and to analyse their own practice (i.e. active learning); is ongoing (i.e. resources) and invites teachers back to discuss changes initiated in practice as a result of CPD participation; encourages teachers and professional developers to share ideas and practices; offers opportunities for practical engagement; and is based on teachers' needs rather than professional developers' perceptions of what teachers need to learn.

4.1.5 Elisabeth

Six interviews (Mar05, Apr05, Sep05, Nov05, Sep06, Nov06) were conducted with Elisabeth. At the time of the research, Elisabeth was teaching in a school in an affluent suburb of Athens. Despite limited PE facilities, Elisabeth reported receiving tremendous support from school leadership and increased recognition of the importance of PE by other teachers.

Elisabeth was trained over a period of 3 years in the 'national academy of physical education' in the mid 1970s. She started her career in an independent/ private school in an 'upper-class' suburb of Athens where she taught for 25 years. Elisabeth had to move to state education 8 years ago when the private school closed. Although Elisabeth acknowledged that there were significant contextual differences between private and state schools, the change did not result in a loss of enthusiasm or passion for teaching PE. Elisabeth held the fundamental belief that professional learning is a continuous process that should never stop:

I learn all the time because PE is evolving, the pupils are changing, society is changing, and we [PE teachers] need to adapt to meet these needs (Int1, Apr05, p. 4).

Elisabeth described her career-long professional learning as ongoing and 'multifaceted' (Int1, Apr05, p. 4) mainly due to her personal motivation and financial commitment to pursue PE-CPD.

'My husband runs a very successful business and I have paid a lot of money on CPD' (Int1, Apr05m p. 6).

Elisabeth's passion was driven by a clear vision to support pupils' moral, social, and intellectual development through physical education.

i. How do PE teachers perceive they learn about teaching?

Elisabeth explained that she constantly learned through the practice of doing the job. Seeking ways to motivate her pupils and get everyone involved in the lessons made Elisabeth re-think her beliefs about the purpose and content of PE. Although she found it difficult to articulate exactly how she did learn, Elisabeth commented:

I cultivated this perspective from experience, by observing that if I focus solely on developing pupils' physical skills and focusing on competition, the majority of the pupils lost interest in the lesson (Int1, Apr05, p. 3).

Elisabeth also reported that she learned when adding a new aspect to her PE lessons; she changed her thinking once she had sufficient evidence that the new perspective increases pupils' participation in PE lessons:

I am always a bit skeptical with anything new. I think, 'will that work in practice?' If I see that it works, I change my beliefs and attitudes (Int3, Sep05, p. 2).

Elisabeth, clarified that her learning had a spontaneous element:

I cannot really put my learning experiences in boxes, in specific time frames or particular stages. It is more random and accidental (Int4, Sep05, p. 1).

Elisabeth has taken ownership of her own learning and sought books to enhance her knowledge:

I study a lot! I open my eyes and search for new things; like, for example, statistics, or biomechanics. I ask around, I search, I study, I learn, I asked how can I use statistics in my lessons and I have used it. I was

struggling at the beginning. But with the help of my pupils, I have improved (Int1, Mar05, p. 4).

Elisabeth also claimed that she acquires fresh ideas in settings outside of the immediate school environment; that is, while she is involved in so-called 'recreational' activities. For example,

I learn from everyday life.I even consider television as an important source of ideas and information. Both good and bad programmes will stimulate me to think in fresh, modern ways about my teaching. I have added specific movements which are modern and which stimulate pupils to participate in PE (Int1, Mar05, p. 1).

Elisabeth argued that teachers also learn with and from one another; particularly valuing professional dialogue. Elisabeth believed that the use of language, the need to clearly articulate thoughts and experiences, and the very fact that '*a different brain can bring new insights into the discussion*'; all constitute important elements of effective teacher learning:

Talking with other people is always important, because you look at the other person, you carefully listen, you learn, you get new ideas. When I talk with other people I feel that I learn and give very important things. I talk and you supplement, and the other way around (Int2, p. 4, Apr05).

You exchange views [with colleagues]; you might say 'what are you doing in relation to this....etc' and then 'Good, I like this approach, but what would you think of that....or maybe....?' (Int3, p. 3, Sep05).

Elisabeth provided specific examples of collegial conversations that were driven by teachers' questions and concerns:

I have many friends who are PE teachers and we talk about physical education and we learn from one another. For example, we might ask each other'what are you doing in the first grade of secondary school because I feel that I'm stuck somewhere and I cannot teach something different' etc. Therefore, you need to adapt all this information/ knowledge to your own reality (Int1, p. 3, Mar05).

Yesterday, I met him [Peter] in the school games for basketball, I asked him to give me some advice for my basketball team. He said something about the dribble

(that my students should use more low dribbles in order to avoid losing the ball); which was simple but I had not thought something like that before. This is how I learn (Int1, p. 1, Mar05).

However, Elisabeth argued that teacher collaboration should be more actively supported and promoted in Greek state schools. For Elisabeth, genuine teacher collaboration involves 'teachers collaborating during a lesson' but also:

Planning together with a colleague what we want to do in a PE lesson. This actually involves a lot of learning for teachers. And then, after the end of the lesson, we sit together and discuss what we liked, what went wrong, what was hard to achieve or implement, what we should do in the future (Int3, p. 3, Sep05).

For Elisabeth, genuine collaborative forms of learning can only work if the teachers involved are deeply familiar with each other, '*feel secure with both what they know and what they do not know*' (Int2, p. 5, Apr05), and hold mutual respect for the knowledge and capabilities of one another:

We do not have to know everything, as long as we recognize that we can share our knowledge and learn a lot from one another - on an equal basis. Not, having colleagues pointing out to me what I do not know and how much they do. Teacher collaboration goes down essentially to individual characters (Int3, p. 3, Sep05).

Finally, Elisabeth explained that PE teachers can be highly knowledgeable about certain areas, but less skilled or informed in others. In this respect, sharing is meaningful:

One PE teacher can be specialized in basketball, the other one in traditional dances, the other one in gymnastics. It is very important to have this cycle because one can inform another (Elisabeth, Int2, Apr05, p. 5).

ii. What is the nature and quality of existing PE-CPD provision?

Overall, Elisabeth was critical of many aspects of the existing CPD system. She emphasised that limited provision was available:

The government....provides some courses and seminars, but I wouldn't say that these courses cover to a great

extent school PE and the needs of PE teachers (Int3, Sep05, p. 1).

I have not come across any CPD events for years. CPD needs to be lifelong (Int3, Sep05, p. 1).

In addition, Elisabeth was critical of one-shot CPD events, which she felt merely 'inform' rather than genuinely 'educate' teachers; and have limited impact upon teachers' practices:

These brief seminars provide only a first aroma of something new. They probably boost teachers to search for another experience that is more meaningful, deeper, during which they can learn and change in a meaningful way (Int1, Apr05, p. 5).

Elisabeth also explained that at the level of implementation, learning opportunities for teachers lacked the kind of structure that could support learning progression; and the content of CPD programmes was largely unrelated to previous provision and teachers' real needs:

In most of the cases, a CPD provider appears and delivers a seminar for a few hours but then he/she disappears. If I want to ask him something 3,5,8 months later where can I find him? Then another provider appears and delivers something different and so on. These courses have nothing to do with our needs (Int2, Apr05, p. 2).

Elisabeth also commented that, delivered en masse, the quality of CPD delivery depends on the CPD provider's ability and willingness to take into account the group's dynamics and teachers' different abilities and interests:

PE teachers have huge differences. There are PE teachers who have studied a lot, there are other teachers who have focused on the school yard and did not have opportunities to work on a theoretical, scientific basis, for their own reasons. They are more 'practitioners'. When they [CPD providers] use scientific language, I just switch off (Int2, Apr05, p. 3).

iii. What are the features of effective PE-CPD provision?

When challenged to consider how she would design CPD to support effective teacher learning, Elisabeth shared a vision and a structure far removed from

the traditional practices and approaches that she has experienced. For Elisabeth, CPD providers should not merely transmit knowledge, and teachers should not be viewed merely as receivers of that knowledge. Rather, effective CPD affords genuine opportunities for teacher interactions and dialogue. In Elisabeth's words: *'for me, for my personality, I would say that CPD needs to be based on dialogue'* (Int3, Sep05, p. 2):

CPD needs to be based on dialogue; teachers need to exchange their views and experiences. CPD, from my view, is not one-directional, from the one to the 50 teachers. I would set the topic for discussion, I would raise some problematic issues and from then on, we would exchange views. CPD is about questioning, discussing, giving/ receiving answers- need to reveal all teachers' views. It is not only the CPD provider's view the valid one. I would reinforce the need for the active involvement of all teachers in the process (Int3, p. 2, Sep05).

Elisabeth was passionate in her belief that effective PE-CPD needs to be coherent and carefully designed to support ongoing and sustained professional learning:

Continuity in CPD is important and even more significant when it is delivered from the same individuals, so I can go and find them again and ask them about things that I have not understood, or forgot, or even tell them that the aims were achieved or even that the aims were not achieved either because I did not understand and implement it correctly or because what you have suggested does not work in my school, they just does not work (Int2, Apr05, p. 1).

The Ministry of education should design a long-term plan for CPD that could last 3 years. For instance, this plan starts today and finishes in 3 years, and CPD courses could be organized in between with clear goals based on the plan. Anyway, if I had the opportunity to (be developed) gradually, with a sense of rhythm, well organized and in order, I wouldn't miss not even one programme.

In addition, Elisabeth was a passionate advocate of practical CPD experiences. Practical learning opportunities were understood as affording

teachers the opportunity to 'explore the new knowledge in practice' rather than passively receiving abstract, meaningless knowledge:

CPD should be in practice. It should have practical application, practical knowledge, which I can 'touch', 'feel', take it in school and my students can try it and work on it. In this way, you renew the content of your lessons; you teach new things to students (Int2, Apr05, p. 1).

iv. Summary

In summary:

- Elisabeth viewed herself as simultaneously a teacher and a learner and, despite moving to state schools with inadequate facilities, her passion for learning was as keen as ever.
- Elisabeth drew upon pupils' engagement and participation in order to inform her teaching; and reported multiple sources of ideas.
- Engaging in professional dialogue with other teachers was vital for Elisabeth in order to acquire new tips and ideas. Elisabeth criticised the lack of collaborative practices in state schools.
- Elisabeth felt that existing PE-CPD provision was unsystematic, one-shot, and unchallenging – and thus had limited impact upon teachers' practices.
- Elisabeth argued that effective PE-CPD needs to be based on professional dialogue and engage teachers in the learning process as active, independent and collaborative learners.
- Elisabeth also suggested grounding systematic PE-CPD provision in a clear vision for the future, affording opportunities for follow-up meetings to support teacher development.

4.1.6 Jon

Jon is a PE teacher with 20 years of teaching experience. Jon has been teaching in the same secondary school for the last 15 years. Jon felt that the quality of teachers' work, and the degree to which they achieve their goals and aspirations, depends on the school's existing infrastructure:

Teacher effectiveness is influenced by the school environment, the existing infrastructure, because PE teachers cannot teach the subject matter if they do not have the essential resources and space (Int2, Apr05, p. 2).

Jon's school had a small indoor space, one 5-a-side football pitch and one basketball and volleyball pitch – all in the school yard (asphalt).

i. How do PE teachers perceive they learn about teaching?

Jon argued that there is no one effective way of teaching PE; rather, he suggested that teachers should engage in a personal journey of discovery to understand what is best for them and their pupils:

I think that good and responsible teachers need to search alone for teaching methods that suit them, their personalities, and their pupils (Int1, Mar05, p. 3).

Jon described his first years in teaching to be reflection-intensive in an effort to identify what is 'good practice' in his specific setting:

After the end of each lesson, I used to look back and try to identify weaknesses in my teaching, consider ways to improve them, and search adequate sources in order to improve (Int1, Mar05, p. 3).

I learnt many things through studying and, mainly, by everyday interactions with my pupils. I think that as the years pass by, I feel that I can deal with these issues better than I used to (Int1, Mar05, p. 4).

Furthermore, Jon found support from colleagues, who were 'close friends', in various forms (e.g. discussions, resources, peer observations), mainly when problems arose in practice:

Whatever problems I encountered in practice, I was trying to find ways to solve them alone and through discussions with friends who are PE teachers as well (Int1, Mar05, p. 3).

I have many friends who are PE teachers and have been very useful in supporting me with resources and other materials and enhancing my knowledge (Int1, Mar05, p. 2).

For Jon, collegial interactions have been so important that he argued that 'nothing of what I'm doing today is my own ideas' (Int3, Sep05, p. 2).

Jon stressed that reflection on practice has been a significant source of learning and self-understanding during the first years of teaching. Nevertheless, after 20 years in teaching, Jon felt that reflection occurred at a more tacit level and certainly less frequently than it used to, since he felt he had 'mastered' existing practice:

I no longer reflect in the sense, in the same intensity as I used to because I know what the pupils need and want (Int1, Mar05, p. 3).

In a similar way, Jon stressed that observing colleagues or coaches was not as significant – or perhaps challenging - as it used to be when he first undertook the teaching role:

When I was a student in the university or when I was first appointed, I used to visit colleagues and observe them while teaching. I used to believe that it was very useful – not any more, although I do believe that there are elements I could take from other lessons, very few though (Int1, Mar05, p. 2).

For Jon, part of the problem was the lack of structures in schools to foster genuine collaborative learning:

It is very hard to find any systematic endeavours towards teacher collaboration in schools; at least, in my school. It really goes down to individuals and their willingness to learn (Jon, Int2, Mar05, p. 2).

Nevertheless, for Jon, bringing 'fresh' ideas in his lessons was vital:

I gather teaching resources, in the forms of video and DVDs for many years now. I go back to them every year, to refresh my knowledge and find new ways of thinking and acting in my lessons (Int1, Mar05, p. 2).

ii. What is the nature and quality of existing PE-CPD provision?

It seems that although keen to learn and improve his practice, Jon reported that his teaching has stabilised over recent years:

I do not do many different things the last years. I believe that I just add few things in my practice. When I was

first appointed, I could feel that I was changing important things in my teaching (Jon, Int2, Apr05, p. 1).

For Jon, part of the problem was the lack of meaningful and inspiring PE-CPD opportunities:

I haven't heard of any CPD organised by the school advisor or any other organisation and which is relevant to PE teachers for years now. It could be more than five years. I know that the school advisor should visit us but I do not even know this person although I'm in this school for the last 15 years. We [PE teachers] are alone really (Int1, Mar05, p. 2).

In this framework, Jon stressed that he faced several challenges to keep up-to-date with recent developments in PE and sport:

I try to keep my knowledge up-to-dated with new books or DVDs as I said before. I struggle to get hold of new sport rules because there are constant changes and I have to be up-to-dated. I try to find them from colleagues (Int1, Mar05, p. 4).

Even more problematically for Jon, when PE-CPD is implemented, the content is unrealistic and inapplicable:

Sometimes, professional developers haven't worked in schools for years, or even they have spent many years studying and do not have a clue what is possible or impossible in schools. They do not know the student population and their needs. And they do not know what we [PE teachers] want (Int2, Apr05, p. 3).

iii. What are the features of effective PE-CPD provision?

For Jon, systematic provision is one of the most important elements of effective PE-CPD:

I believe that it is important to participate in CPD every year. Teachers need to start off the school year with fresh ideas and new ways of teaching some of which can be implemented in practice (Int1, Mar05, p. 4).

Jon placed great emphasis on CPD content that focuses on teaching PE and affords alternative ways of teaching and learning:

I believe that CPD is effective when it gives me new things, new teaching approaches that I can implement

in my school. It is effective when it gives me new knowledge (Int2, Apr05, p. 2).

In this framework, Jon felt that it was vital for professional developers to have substantial experience as PE teachers themselves in order to afford ideas and knowledge that can support teachers in their challenging work:

I believe that professional developers need to have teaching experience. It is crucial because it is a different thing to talk theoretically that 'this is good practice' or 'you [teachers] should teach that way' and a totally different thing to ground your arguments on practice, and say, 'the theory says that, but I have tried it and it worked in that, that, that way'. In his way, their suggestions will be realistic and will be able to be implemented (Int1, Mar05, p. 5).

Drawing on an effective CPD experience on refereeing, Jon was an advocate of 'hands-on' and interactive approaches to teachers' professional development:

We [CPD participants] actually refereed a friendly match and then we went into the room and discussed our experiences. We analysed occasions where the decisions were ambivalent and we learnt (Int2, Apr05, p. 2).

Jon also stressed that PE teachers' voices and needs need to be taken into account in the learning process:

Professional dialogue is fundamental to CPD. We [PE teachers] have important things to say and share. We can share how we teach, or challenges we have encountered and how we solved them (Int1, Mar05, p. 5).

For Jon, professional dialogue in CPD events is important because it is grounded in teachers' experiences. Furthermore, professional dialogue, for Jon, can provide meaningful insights to professional developers:

It is important to converse, to exchange experiences. Professional developers can understand what we [delegate teachers] know, what went well in the course, whether it is relevant to our needs, or how they can further support us learn (Int3, Sep05, p. 1).

Furthermore, Jon believed that many teachers have valuable professional experiences and knowledge that can be useful to other teachers if shared.

'They [professional developers] might suggest something that one of the teachers has already tried, finding out how their pupils reacted and learned, and improved it as a result, which knowledge can be shared. This is very important' (Int3, Sep05, p. 1).

Finally, Jon felt that effective CPD needs to engage teachers in active and collaborative learning and provide follow-up meetings. In the extract below, Jon drew attention to the importance of not only acquiring knowledge but also developing the capacity and the *inclination* to elaborate on, interpret, and use theoretical knowledge as well as share experiences and understandings:

I suggest that in effective CPD, professional developers put something new on the table, then we [teachers] talk about it, work it, discuss how it could be a workable idea in our schools, try it out, reflect what worked well and what not, and go back and discuss it with the rest of the group (Int3, Sep-5, p. 2).

iv. Summary

In summary:

- Jon described his first years in teaching as 'learning-intensive'. Jon felt that he learnt a lot by reflecting upon the actual practice of teaching and by interacting with other PE teachers (e.g. sharing resources, observing each other).
- However, as the years progressed, Jon felt that this kind of learning was not as powerful – or perhaps 'transformative' - as it used to be when he first undertook the teaching role.
- Jon was keen to develop new insights about teaching but reported that his practice had stabilised during recent years because of a lack of systematic PE-CPD provision.
- Jon argued that the allocated school advisor was absent; and that when PE-CPD is implemented, professional developers provide unrealistic suggestions.

- Jon argued that effective PE-CPD is that which: is practical and realistic (and, thus, professional developers need to be close to practice); is systematic and provides new ways of thinking about teaching PE; enables teachers – and professional developers - to learn from each other; provides opportunities for active learning and follow up meetings in order to ground teachers' learning in the context of their practices.

4.1.7 Peter

Three research visits were conducted with Peter (Mar05, Apr05, Sep 05). Peter is a PE teacher with a wide range of professional experiences that transcend school teaching. Like Elisabeth, he was trained in the 'national academy of physical education' in the mid 1970s. Peter described his induction into teaching in schools as nonexistent. With insufficient initial training, Peter felt he had to engage in further learning. In the early 1980s, Peter embarked on intense, self-initiated study and pursued a number of training courses, mainly designed for basketball and football coaches. He became increasingly fascinated with emerging ideas around sport science, training principles to improve stamina, body power, and flexibility. Peter described how he became a highly successful basketball coach and, in parallel with his teaching responsibilities, he delivered basketball courses for coaches. Peter felt that he reached his professional 'peak' when he was appointed as a sport development consultant to the General Secretariat of Sport in Athens. As a result of this appointment, he spent several years away from teaching in an ongoing project aiming to increase the number of elite athletes in Greece. However, during the last couple of years, Peter lost his job and experienced his forced return to schools negatively. Peter has struggled to adjust to this new situation. As a result, his willingness and motivation to learn has dropped dramatically, mainly, as he reported, due to poor facilities:

Even if you possess subject matter knowledge, you can only engage in limited effective teaching and reflection when the school facilities are inadequate; like the ones we have here (Int1, Apr05, p. 1).

i. How do PE teachers perceive they learn about teaching?

Peter could recall entering the teaching profession with a passion for learning. Peter reported that for the most part of his career, he was systematic and organised in his professional learning. He primarily talked about conscious and planned learning-in-context:

You learn through reflection upon the new activities, knowledge and skills you implement in practice. If you observe that they actually work in your context, then you use them again. You might even need to work further on them to better suit your pupils (Int2, Apr05, p. 2).

For Peter, new knowledge needs to be perceived not as a given entity that is acquired in a structured learning environment and transferred to teaching; but rather as something fluid and dynamic that can only be fully grasped through use in real classrooms:

You learn through repetition in the context of practice; when you work in practice something new; when you feel that you have sufficient experience and the pupils positively react to that (Int1, Apr05, p. 2).

However, Peter emphasized that teachers need to be 'able' - that is possess certain knowledge and abilities - to elaborate on, transfer and implement new knowledge in practice:

Teachers need to have the knowledge base and skills to evaluate new knowledge and transfer it in effective ways in their teaching contexts (Int1, Apr05, p. 2).

Peter also illustrated that teacher learning opportunities arise when they seek a response to specific situations/ conditions of practice. For Peter, this kind of learning is more ad hoc yet natural:

You might encounter several challenges when implementing a new idea in practice. You really need to see how your pupils react, what they get out of it (Int1, Apr05, p. 3).

I always observed how pupils engage in the lesson, how they learn and I make decisions accordingly (Peter, Int1, Apr05, p. 3).

Peter also talked about valuable learning from observations of other PE teachers and coaches while they engaged in teaching/ coaching. This was particularly the case during the first challenging years in schools:

When I was first appointed I learnt a lot by observing how other teachers and coaches structured and taught their lessons and how they applied specific principles in practice (Int2, Apr05, p. 1).

However, as previously noted, Peter's engagement in professional learning has declined significantly as a result of his redundancy from his previous post.

I do not learn with the same intensity during the last years. I lack the mood; I dare to say (Int2, Apr05, p. 1).

ii. What is the nature and quality of existing PE-CPD provision?

Peter has pursued limited CPD courses on teaching PE. Instead, the bulk of his CPD experiences consisted of training/coaching sessions where he participated both as a learner and a tutor. However, drawing on his limited experiences, he was certain that current PE-CPD provision is largely 'unrealistic':

I strongly believe that current PE-CPD provision is unrealistic in that professional developers discuss and analyse teaching PE in situations and contexts that have nothing to do with the existing situations in schools (Int1, Apr05, p. 1).

iii. What are the features of effective PE-CPD provision?

In this framework, Peter called for a different orientation to PE-CPD opportunities, where both practical engagement and 'realistic' new knowledge are offered to PE teachers:

I think it is urgent to look at PE-CPD in terms of the Greek school reality and discuss solutions and ideas that can be applied in the school yard where we teach (Int1, Apr05, p.2).

In addition, for Peter, PE-CPD is effective when it stimulates teachers to puzzle about and question their existing practice and engage in active learning. Peter assumed that evidence-based CPD provides a good starting point for a critical evaluation of current teaching practices and the construction of more effective PE lessons:

Teachers must elaborate whether new research findings can be meaningful in the context of their work. They also need to think how to implement them in order to meet their PE goals and improve their lessons (Int1, Apr05, p. 2).

In terms of the form of delivery, Peter argued that CPD is effective when theoretical presentations are combined with practical applications to support effective teacher learning:

We [humans] understand the surrounding world through the eyes. In terms of CPD, what is discussed in theory has to be presented and analysed in practical situations. In this way, they [PE teachers] will understand things that they did not get from the theory and they will appreciate the degree to which the new knowledge is effective and worthwhile (Int1, Apr05, p. 4).

Peter also suggested that fostering interactive learning opportunities in CPD can be challenging because of PE teachers' diverse experiences and professional developers' theoretical positions. He explained:

I have attended some seminars where some form of discussion was facilitated. But, the quality of these discussions depends on teachers' interests and, most importantly, on professional developers' experiences. Many CPD providers do not have sufficient teaching experience and they might not get the teachers' messages. There is a huge gap between theory and practice (Int1, Apr05, p. 4).

However, it seems that information conversations amongst teachers can be powerful experiences:

I find interactions with colleagues after the end of the courses much more meaningful than the actual course, because we were raising and discussing our issues and concerns emerged from situations of practice (Int1, Apr05, p. 1).

They [interactions with colleagues] are very useful because we talked about our realities rather than the ideal (Int1, Apr05, p. 2).

Peter also suggested that there should be a CPD system to group schools into categories based on existing facilities and to deliver CPD activities

according to the schools' and teachers' needs. Peter was convinced of the need to target CPD appropriately to put in place a thorough and systematic audit process:

Depending on schools' facilities, schools are grouped into categories and the CPD process is about setting specific targets for each school, evaluating implementation, and meeting again, after a period of time to share experiences and set higher targets (Int1, Apr05, p. 4).

Finally, Peter suggested grounding any professional development initiative on a thorough, coherent strategic plan for the future of education, physical education, teachers and pupils:

What are the aims of our educational system? Do we [teachers] know them? What type of citizens does the state envision for the future? How can we achieve this aim? How do schools operate to achieve those aims? Is PE-CPD aligned with these goals (Int2, Apr05, p. 2)?

iv. Summary

In summary:

- Peter viewed learning as an ongoing process that occurs in multiple contexts: teachers acquire new knowledge or ideas in CPD, then engage in an active interpretation of this knowledge in order to make it their own, use it in practice, and modify it accordingly. Teachers' capacities for self-evaluation and reflection are crucial in this respect.
- Other teachers have been helpful to Peter especially during the first challenging years in schools. A career setback had a negative impact upon his ability – and willingness – to engage in professional learning.
- In relation to the quality of existing PE-CPD provision, Peter stressed that there is an apparent inconsistency between what is presented in CPD events and what is feasible in the school environment.
- For Peter, effective PE-CPD is that which: is practical and realistic; provides new research-driven knowledge and opportunities for teachers to elaborate on ways to make this knowledge workable in their practices (i.e. active learning); engages teachers in meaningful interactions that are grounded in their needs and school realities; and is targeted appropriately to teachers and schools.

4.1.8 Margaret

Four research visits were conducted with Margaret (Mar 05, Apr05, Sep05, Sep06). Specialising in tennis, Margaret worked as a tennis development coach in private tennis clubs for many years after her graduation, and she described herself as a passionate tennis coach. It was 13 years after she had graduated from the university that Margaret was finally positioned as a supply PE teacher in a state school. However, by that time, her passion for teaching had faded while coaching tennis remained her main professional interest. At the time of the first interview, in April 2005, Margaret had just been nominated as a permanent teacher in a state school, having spent seven years supply teaching in a number of primary and secondary schools in Athens. After having two children, she no longer worked as a coach. However, as the discussion below revealed, Margaret had developed her professional identity through coaching and tennis, while perceiving teaching PE as an unchallenging and unrewarding job.

i. How do PE teachers perceive they learn about teaching?

Margaret felt that continuing learning is crucial in order to feel competent and be judged positively by the pupils:

I need to be up-to-date with issues because pupils are very hard judges, and they know if you know or not. If they understand that you are good, you know things, they support you and you make your life easy. If they understand that you do not know things, they can make your life miserable (Int1, Mar05, p. 5).

In particular, Margaret wanted to acquire and demonstrate knowledge on health and fitness in order to affirm the status of the PE profession within schools.

When prompted to reflect on how she perceived she learned, Margaret described learning as a process that is gradual, incremental, and highly individualistic. Margaret gave specific examples of learning:

I learn when I listen or read something and then I try it and it gradually becomes part of my own development. It becomes part of my work; it is my own property (Int2, Apr05, p. 5).

Margaret talked about the need to 'repeat something to become embedded in my understanding and my practice' (Int2, Apr05, p. 5):

I learn by repetition and practice. It takes time and personal effort to do something well. For example, I cannot teach a traditional dance without spending time in my house dancing and trying to improve my performance. It is a process of me working at home, going to school, trying things out, going back and work it alone or with my sister who is a great dancer (Int2, Apr05, p. 6).

In addition, Margaret considered other teachers as providing information and guidance:

If teachers do not know something, then they can learn it from colleagues. This happens already. It is natural to seek for and share information (Int3, Sep05, p. 3)

Furthermore, Margaret believed that although coming from different schools, and holding different positions from each other, PE teachers share similar problems. Therefore, she argued: 'We meet with colleagues and we tell stories and share struggles that are important to us' (Int3, Sep05, p. 2). In this way, teachers felt that they are, indeed, in similar situations and not so isolated:

You have a problem, is this problem a common one or something special? In the CPD course you find other teachers and learn what is going on with them, in their schools (Int3, Sep05, p. 2).

However, for Margaret, who felt very confident in her knowledge about teaching PE, collegial interactions tend to reinforce existing practices:

Sometimes we just confirm and ensure each other that what we are doing is appropriate....We talk, but I know most of the things we are saying. So, we persist in what we already do (Int3, Sep05, p. 3).

Margaret also believed that teachers must engage in personal study in order to learn; collegial interactions are not enough:

In order to learn something new, you need to be actively engaged with it, you need to study. If it is something simple, about a teaching approach or a new skill which you need to add to your practice, colleagues can be very valuable. Colleagues can also give you a direction, where to search for more information. [However], individual teachers need to study hard in order to go in more depth, fully understand something new, a new theory for example, and learn it (Int3, Sep05, p. 3).

Margaret provided a specific example to illustrate her argument:

I told my colleague where to find the rules for table tennis. I cannot go through the rules. I cannot get into her mind. She found them and she has to study them alone in order to teach table tennis (Int3, Sep05, p. 4).

Although Margaret valued professional dialogue and interactions with other teachers, it seems that teaching in different schools every year as a supply or newly appointed teacher, did not help to develop links with colleagues. At the time of the first year of the research, Margaret shared her teaching workload between two different schools. Margaret reported that for the most part, she worked on her own with minor exceptions where she interacted with other teachers to arrange fixtures, share responsibilities and sort out other administrative issues. Margaret could not recall any episode of 'meaningful' learning as a result of their interactions. Crucially, Margaret felt that her colleagues did not have the expertise to share with others: I don't think I can learn a lot from teachers. I feel that I know more' (Int3, Sep05, p. 5).

However, it is important to note that Margaret felt that there was little learning needed or required about teaching PE *per se*. Margaret believed that limited school sport facilities restricted her ability and affected her willingness to teach:

As you can see, nothing will change [in terms of the sport facilities]. Only when PE get the status it deserves and we all accept its importance for pupils' holistic development, only then I will be more dedicated to teaching PE. Now, I just teach decent lessons (Int2, Apr05, p. 3).

Margaret also felt that PE was unchallenging and boring because of the low levels of pupil achievement:

In any case, no matter how specialised you are, in schools, pupils cannot reach high levels of performance. There are not many challenges in teaching PE (Int1, Apr05, p. 6).

Moreover, Margaret believed that the NCPE has remained unchanged for years and, consequently, does not provide sufficient challenge and motivation to teachers to engage in ongoing learning and development:

I do not feel the need to learn anything about PE. I'm familiar with what I'm teaching, which I repeat every year. The PE content remains the same for many, many years. What should I learn? How to teach passing, digging, serves, lay-up, jump-shot? (Int1, Apr05, p. 6).

Therefore, despite the fact that Margaret reported pursuing tennis coaching courses every year, she was not particularly inclined to attend PE-CPD courses:

I have chosen to attend coaching courses on tennis because this is my specialisation. I have not attended any PE-CPD since I was in the university, with the exception of the induction course. I don't feel the need to learn anything else (Int1, Apr05, p. 1).

ii. What is the nature and quality of existing PE-CPD provision

When Margaret was asked to describe what the term 'CPD' means to her, Margaret responded as follows:

Well, when I think of CPD, I think of theoretical presentations, with an introduction, many slides and us [teachers] keeping notes. We can ask questions at the end (Int1, Apr05, p. 5).

Unsurprisingly, Margaret did not have a wide range of PE-CPD experiences. With the exception of sport and PE conferences pursued whilst a student teacher, Margaret attended the compulsory induction training programme for newly appointed teachers in state schools in 2004-2005. Margaret commented that the programme was not effectively designed and delivered to meet teachers' diverse learning needs:

The induction programme was very boring. It was useless. I did not learn anything new. They didn't say anything about teaching PE. Almost everyone [delegate teachers] criticised it (Int1, Apr05, p. 4).

Margaret clarified that the fundamental problem with this CPD experience was that teachers with diverse and varied teaching experiences and learning needs were brought together and treated as if they were the same.

Margaret also drew attention to the unrealistic nature of both theoretical presentations and practical experiences in the induction programme that can rarely be implemented within the existing facilities:

There are many theoretical presentations or practical examples that do not talk about what is actually happening in reality. My reality is that I work in the school yard, with limited facilities and no indoor hall. Please, talk to us about what we need to listen (Int2, Apr05, p. 1).

Margaret further commented that most PE-CPD opportunities she had pursued were repetitive and provided the opportunity of merely 'refreshing' what she already knew:

What they present in CPD is not something radically new or different. It is a bit repetitive really. We just hear the same things (Int2, Apr05, p. 1).

iii. What are the features of effective PE-CPD provision?

Margaret argued that CPD is effective when it is tailored to teachers' diverse learning needs, according to the level of education they are teaching and their individual needs and expectations:

I am a strong advocate of CPD programmes that target primary PE and secondary PE in appropriate ways. Primary PE teachers have different needs from secondary PE teachers. You cannot put everyone in the same course (Int4, Sep06, p. 1).

Therefore, for Margaret, it is essential that 'learning experiences are designed, or even adapted when necessary, to meet teachers' needs and requirements' (Int4, Sep06, p. 2). Margaret also talked about the importance of affording teachers opportunities to express their opinions during structured

CPD events. In this way, Margaret said, CPD is more realistic and 'down to earth':

Teachers' voices and experiences need to be heard. We work every single day with kids. It is fundamental. We need to share our experiences of how to deal with problems and how we teach (Int3, Sep05, p. 3).

Drawing upon her tennis coaching CPD experiences, Margaret suggested that the practical element is crucial because she learns by doing and by experiencing the effects a teaching approach might have upon pupils:

Yes, we [tennis coaches] pretended we were the students and the coach was telling us what to do next; like a training session. That was a brilliant experience. We had the opportunity to see whether we can play, whether we can perform an exercise like a student, how we develop our skills, how we can add something new to our existing knowledge. We put ourselves in the students' position; how it looks like to follow instructions, take the teacher' incentives and advice, and have the teacher doing the lesson (Int1, Mar05, p. 4).

In this context, Margaret drew attention to the professional developers' knowledge and ability to 'transmit' knowledge to teachers:

There are tutors who can transfer the new knowledge, and this is very important. There are others who lack this ability. Effective CPD has good tutors, experts in their field, with substantial experience, and this capacity to transmit knowledge (Int1, Mar05, p. 4).

However, when Margaret was asked to describe what sort of support she would need in order to change the way she thinks about fundamental pedagogical and teaching approaches, she then suggested that teachers should be actively involved in the learning process rather than passively receive information:

We [teachers] need to have the time to explore what is the meaning of the new approach, consider how it can be implemented, come up and discuss how to do it, and actually do it (Int3, Sep05, p.1).

Margaret argued that teachers need to 'work on the knowledge presented and make it more personal' (Int3, Sep05, p. 2).

Finally, Margaret felt that CPD is effective when 'it focuses on the subject-matter to support PE teachers develop a more in-depth understanding of the content and nature of PE' (Int2, Apr05, p. 3).

iv. Summary

In summary:

- Margaret perceived teaching PE as unchallenging work in the context of limited adequate PE facilities and an unchanged national curriculum. Consequently, Margaret argued that this situation does not provide sufficient challenge and motivation to teachers to engage in ongoing professional learning.
- Margaret experienced learning as a highly individualistic process of sense making and construction of understandings in the context of practice.
- For Margaret, current PE-CPD structures treat teachers as if they have the same needs; ignore contextual constraint and provide unrealistic ideas for practice; and fail to afford new knowledge.
- In sharp contrast, effective PE-CPD is that which: is targeted appropriately and delivered flexibly to meet teachers' needs; is practical to allow deep understandings; is delivered by professional developers who are able to 'transmit' knowledge to teachers in effective ways; and provides opportunities for experimentation when the purpose is to foster radical teacher change.

4.1.9 Hannah

Three interviews (Mar05, Sep05, Sep06) were conducted with Hannah. Hannah is a PE teacher with 20 years experience; and has been teaching in the same secondary school for the last 15 years. Four years ago the school moved into a new building but Hannah explained that the PE facilities were limited and inadequate:

As you can see, this school has limited infrastructure for PE. We are two PE teachers and we teach in the school

yard and the space is limited: just two basketball courts and no indoor facilities. We have 50 kids in such a small space. It is really frustrating and sad (Int1, Apr05, p. 1).

For Hannah, teaching PE in this context was very challenging. When they first moved to the new school, Hannah struggled to secure additional outdoor space and indoor facilities for PE. However, her efforts were fruitless. Hannah illustrated her struggles in powerful ways:

I fought for this space. I desperately needed more outdoor space. However, all other teachers unanimously decided that this should be a parking space. I was devastated. This means that with no adequate infrastructure and limited space, my ability to teach PE lessons is significantly restricted. How can you teach PE here? (Int1, Apr05, p. 1).

We had this huge indoor space. It could be used for PE. I explained that I knew people who would help me to equip this space and make it a proper PE indoor hall. They did not even want to discuss this matter. They wanted TVs, musical instruments etc. Now PE lessons cannot take place in there, because of all this expensive equipment. This creates serious problems as you can imagine (Int1, Apr05, p. 1).

In this restrictive framework, Hannah felt unable to offer a wide range of PE experiences for pupils:

A good PE teacher is one who is delivering a wide range of activities and who he is equally good in each one of them. Pupils need to learn many different activities in order to learn to engage in physical activity (Int1, Apr05, p. 4)

You see, I never teach football or handball. The space is too small and slippery and the ground is made of asphalt. It can be very dangerous for my students. I can neither teach gymnastics or dance etc. (Int1, Apr05, p. 7).

Hannah reported several challenges to motivate pupils to participate in PE lessons in the existing facilities.

i. How do PE teachers perceive they learn about teaching?

However, Hannah began her teaching career with a lot of enthusiasm and a passion for learning. Hannah reported learning in multiple contexts; when 'visiting other schools' to observe colleagues/ friends teaching or preparing a school festival. One of the central learning outcomes she identified included the acquisition of new ideas to enhance her teaching repertoire:

I used to go to local festivals, games, demonstrations. I used to prepare and run myself some festivals with traditional dances. I used to visit other schools where my friends were teaching to observe them. I got many ideas through observation. Now, I do not have the time and the will to do that (Int1, Apr05, p. 4).

Indeed, at the time of the research, Hannah reported that family commitments, busy lifestyles, and other financial issues, restricted her from conducting these visits:

I have family, I have kids. I'm a single parent. I do not have the time (Int1, Apr05, p. p.4).

When you are on a constant battle for survival, financially, and you have to do more than one job, you cannot dedicate time to learning. There are many colleagues in this situation. They have to prioritise their choices; and usually this it to bring more money to the family rather than learn (Int1, Apr05, p. 8).

In addition, with limited PE-CPD opportunities, Hannah explained that she learned alone in the context of her practice and by elaborating on pupils' reactions:

I now know, I do not know how, I guess from all these years of teaching experience, I know that I have to put less pressure on, and have less expectations from a student with limited abilities. I have to give them space to decide for how long they want to run, or how many sit ups they can do (Int1, Apr05, p. 7).

When I implement something and I observe my pupils' reactions. I see how they participate and I make a judgment, that is whether I should continue or not. This is a rule. Students know what they want. If their reactions are not good, I try to enthuse them and explain why it is important, or just reject it altogether (Int1, Apr05, p. 8).

However, it seems that this kind of isolated learning in-context was not sufficient for Hannah and she acknowledged that her practice has remained unchallenged for many years:

Q: If I asked you, what are you doing in different ways this year compared to the previous years, what would you say?

Hannah: Nothing really. Many aspects of my teaching are given, established. The national curriculum is established and I have to teach certain things every term. I do not think I have changed anything in my practice during the recent years. If I had the opportunity to learn something new, through CPD or any other path, I would be keen to implement it. It would make my job more interesting (Int1, Apr05, p. 7).

Furthermore, Hannah felt that her professional accomplishments and services were neither appreciated nor recognized by her school and the local community:

I have done so many things in my life. I got so much involved. But at the end of the day, my efforts were never recognized and no one ever thanked me. I would say that with the existing conditions....well, anyway, at some point, my career path and my desire to learn and engage in many things started to decline. I quit (Int1, Apr05, p. 5).

ii. What is the nature and quality of existing PE-CPD provision?

At the time of the study, Hannah had attended a relatively small number of formal PE-CPD opportunities (and CPD in general). Hannah felt that the government did not provide supporting structures in schools for PE teachers:

I have not been in a proper CPD for many years. I have gaps. I do not have fresh ideas to teach and do not offer anything new to my pupils (Int1, Apr05, p. 7).

Hannah could recall only two structured PE-CPD experiences; SELME (see section 2.2.4) and a one-off course on creative dance. Hannah argued that her year-long participation in SELME was helpful, but it was the only meaningful support she has received since she was nominated in state schools, 20 years ago:

Anyway, this programme helped me a lot, but it happened only once, in 1993, when I had 10 years of

teaching experience. Now, I have 20 years of teaching experience and nothing important happened (Int1, Apr05, p. 5).

Drawing upon her limited PE-CPD experiences, and the experiences of 'close friends and colleagues', Hannah was highly critical of the fact that some courses were delivered en masse, without taking into account individual teachers' (and pupils') needs:

The school advisor invited us [teachers] and [names] from the university delivered.I didn't learn anything new. We were about 100 PE teachers (Int1, Apr05, p. 3).

I did not want to participate. I already knew most of what they were saying. I have been teaching for 20 years. These are not the things that pupils and us [teachers] need nowadays (Int1, Apr05, p. 3).

Hannah argued that this PE-CPD experience was fragmented with no specific structure or strategic aim to follow:

What I got out of this meeting was that each presenter talked about their own research, work. They covered some theory at the beginning and then we moved on to practical. But it didn't link (Int1, Apr05, p. 3).

This course was also ineffective, according to Hannah, because it was 'inapplicable' in her own professional context:

They did it in practicebut it was presented in an ideal situation that has nothing to do with my, and other teachers', realities. It was unreal (Hannah, Int1, Apr-05, p.2).

Hannah also commented on an apparent lack of supporting structures after the end of CPD events in order to support teachers during the challenging implementation phase:

The conditions are very different between the CPD event and my teaching. In any case, I have to raise questions and try to understand as much as possible, because no one will come in our school to solve problems or questions (Int2, Sep05, p. 1).

In sharp contrast, Hannah's learning experiences in SELME seemed to be rich and diverse. She highly valued the practical element which was tailored to

teachers' needs in teaching PE. As a result, Hannah felt a desire to learn and improve:

This year in SELME was so meaningful and constructive. When I returned to teaching, I was so excited, I felt like a student. I appreciated the learning process and the need to learn and work hard. I implemented what I've learnt (Int1, Apr05, p. 4).

iii. What are the features of effective PE-CPD provision?

Hannah argued that PE-CPD is effective when it is systematic and provides new knowledge:

I would suggest to have CPD every year, for 10-15 days at the beginning and at the end of the school year, to learn new knowledge, teaching approaches, which have been changed since I attended SELME, and refresh our practices (Int2, Sep05, p. 1).

For Hannah, new knowledge entails teaching and pedagogical strategies that support effective pupil learning:

They [professional developers] have to support us to teach effectively in ways that meet the needs of our pupils (Int2, Sep05, p. 3)).

Hannah suggested that a combination of theory and practice is the most important CPD strategy:

In SELME, they combined theory and practice. The practical element was very powerful. They demonstrated to us how to teach skills and tactics in ways that could be implemented in practice (Int1, Apr05, p. 3).

Hannah drew attention to the practical dimension as she felt that she learns by doing:

It takes so much time and so much effort to implement something new in your practice. Personally, I need to have a deeper personal understanding of the new knowledge through practice in order to find ways to transmit it to the students (Int1, Apr05, p. 7).

Furthermore, according to Hannah, PE-CPD is effective when its content is realistic and applicable: "when professional developers tell teachers how to teach PE under the existing school conditions and facilities" (Int1, Apr05, p.1).

For Hannah, providing teachers with realistic, feasible ideas for action is amongst the most challenging issue for professional developers. It requires an in-depth understanding of, and constant interaction with, the practice of teaching in Greek state schools:

I suggest, why don't they [professional developers] teach for some time, to see the real issues, the real problems we encounter, and then, if they did so, they would have gained significant insights on how they should support us teach in effective ways in these schools with these pupils. Because you can suggest many nice ideas. But, we are called to implement them and in most of the case, this is impossible (Int1, Apr05, p. 1).

Hannah recognised the need for teachers to 'translate' and sometimes 'construct' knowledge and understandings of effective teaching and learning:

Many research findings are not based on Greek schools and on the Greek reality. Researchers study in laboratories or in ideal situations. I have 20 years of teaching experience. From here, from the base [the schools], you can generate knowledge, not from the university (Int1, Apr05, p. 3).

In this context, Hannah believed that teachers can and should provide support to, and learn from, colleagues:

I believe that it is very important to have opportunities to exchange views and experiences with other PE teachers. It is important not only because we describe the problems we encounter but also because we explain how we deal with them in our specific contexts. We exchange potential solutions in other words. How we teach without indoor facilities! Teachers always take something out of these conversations. They share ideas (Int1, Apr05, p. 2).

Hannah argued that teachers both possess valuable knowledge and are able to communicate it effectively to colleagues:

Teachers talk and through this discussion, which sometimes can be a battle of ideas, I expect to have an outcome. I expect to learn something. I might describe how I teach something specific in my school. My colleague might have a diverse idea or experience. At the end, I might elaborate: 'let me think, Maria told me x, it's interesting, let's implement it to see if it works'. Since I try it and it's good, I start to gradually embed it in my practice (Int2, Sep05, p. 4).

Hannah pointed to multidirectional learning for all those involved:

When we have the opportunity to talk and converse, we can renew our knowledge. Professional developers can renew their knowledge as well. Because, we [teachers], through our questions, we demonstrate our knowledge. This knowledge is useful for everyone. Professional developers can understand many of the issues that we encounter (Int2, Sep05, p. 1).

iv. Summary

In summary:

- Although Hannah valued professional learning, at the time of the research, she was struggling with inadequate PE facilities and lack of support from other teachers or the wider community.
- Hannah acknowledged that she developed her professional practice while teaching; but, with limited external support (e.g. PE-CPD) and family commitments that hindered any other kind of informal, collegial learning, Hannah felt isolated and reported that she introduced limited changes to her practice.
- According to Hannah, existing PE-CPD provision: is fragmented and based on availability rather than a systematic strategic planning for teachers; is unrealistic and does not provide any meaningful support.
- For Hannah, effective PE-CPD provision is that which: provides new knowledge systematically about teaching and learning; is practical, realistic and applicable; and affords teachers opportunities to experiment with new knowledge, work together, and learn from each others' experiences.
- The quality of professional developers was central.

4.2 Open-Ended Profile Questionnaire

An open-ended profile questionnaire was distributed to approximately 70 PE teachers and a total of fifty eight were returned (83% return rate); thirty nine being completed by secondary PE teachers, while the remaining seventeen by PE teachers working in primary education. The profile questionnaire (in

appendix C) aimed to explore key features of PE teachers' CPD histories and to draw conclusions about the kind and purpose of CPD they have attended, what they found effective/ineffective CPD, and why, and how these experiences impacted upon practice. In addition, the profile questionnaire was designed to provide data on teachers' perceived learning needs and important sources of professional learning. Main findings are reported below under the headings of the three main research questions.

4.2.1 What is the Nature and Quality of Existing PE-CPD Provision?

Drawing on previous work in England (Armour & Yelling, 2004), teachers were asked to give information on the CPD activities in which they had participated; and identify the content/ topic, duration, and form of 'delivery'. In total, fifty five teachers completed this question.

Taken collectively, these fifty five teachers reported that they had participated in 301 general CPD programmes, 85 of which were specifically designed for PE teaching. In relation to PE-CPD, the most frequently mentioned courses were: sport specific training (28 mentions) and general courses on teaching PE in primary and secondary education (15 mentions). Ten PE teachers reported attending the SELME programme and seven the induction training. It is interesting to note that 3 teachers included in their lists formal and informal meetings with the school advisors as PE-CPD. Two mentions were related to PE and health issues, and one referred to CPD designed to provide support for teaching PE to pupils with special educational needs.

Crucially, sixteen teachers (30%) could not recall any structured learning opportunities specifically designed for school PE (PE-CPD). Thirty nine teachers (70%) reported having participated in eighty five PE-CPD opportunities. This averages to approximately two PE-CPD courses for each teacher. Furthermore, an analysis of individual teachers revealed interesting stories regarding these teachers' PE-CPD histories and further reinforces the suggestion that PE-CPD is very infrequent. For example, a male PE teacher with seventeen years of teaching experience had not pursued any PE-CPD

programmes since his participation in SELME in 1985. Another male PE teacher, who was the Head of School at the time of the research, demonstrated an impressive CPD history since he was first appointed as a teacher, 28 years ago. Nevertheless, it seems that he had pursued only one PE specific course. There are other teachers whose PE-CPD history is characterised by large gaps in participation. For example, a female PE teacher with 14 years of teaching experience had attended 4 PE-CPD courses in between 1990 and 2005 (1990, 1996, 2002, 2005).

Teachers' responses also revealed a higher degree of engagement in coaching courses rather than in PE-CPD. Twenty five of the fifty five teachers (45%) reported attending coaching courses in a range of sports (e.g. football, volleyball, basketball, handball, track and fields, tennis, table tennis, gymnastics, dance) on a regular basis. Six teachers included in their CPD history 15 courses on refereeing.

Teachers were also asked to identify the duration of the PE-CPD opportunities they could recall. Thirty seven out of the thirty nine teachers who had pursued PE-CPD courses completed this question. As table 3 indicates, with the exception of SELME, which was of one year duration, around the two thirds of the reported PE-CPD activities (70% of teachers' responses) were 'one-shot'/ short duration, ranging from a couple of hours up to one to two days.

Table 3: Duration of PE-CPD participation

PE-CPD experiences in numbers	Duration of PE-CPD experience
24	2-4 hours
36	1-2 days
4	1-2 weeks
4	40-60 hours
10	1 year (SELME)
7	Induction programme – 40 hours
Total PE-CPD: 85	

Taken collectively, responses to the question about PE-CPD strategies revealed that these teachers had broadly similar experiences. Ten teachers wrote that 22 of their PE-CPD experiences had a practical element; either a model teaching approach (8 responses); or a 'hands on', practical element (8 responses) or a combination of both (6 responses). Sixteen teachers claimed that they had participated in 25 PE-CPD courses that were purely theoretical in nature. Four teachers clarified that there were opportunities for discussion/questions and one teacher wrote that this experience incorporated some form of group work. Twenty teachers reported 34 PE-CPD courses/ programmes that combined theory with some form of practical experiences, including the compulsory induction programme (7 responses) and SELME (10 responses).

In recalling their previous PE-CPD experiences, sixteen teachers identified at least one PE-CPD experience as particularly effective; while eleven teachers identified at least one PE-CPD course as particularly ineffective, reflecting a variation in quality of PE-CPD provision. These teachers outlined a number of reasons for PE-CPD effectiveness; and these are discussed in section 4.2.2 below.

These teachers were asked to identify what they would like to learn in the next year in order to improve their practice. Probably reflecting their poor PE-CPD profiles, all these teachers demonstrated a strong desire to acquire new knowledge and develop new understanding about PE and sport.

4.2.2 What Are the Features of Effective PE-CPD Provision?

Teachers were asked to identify an effective CPD programme that they had experienced in the past and to outline three main reasons why they believe it was effective. It is interesting to note that not all teachers drew upon a prior CPD or PE-CPD experience to illustrate their views on what is effective CPD provision, so responses were analysed both separately (in order to capture the nature and quality of current PE-CPD provision) and together (in order to explore these teachers' overall views on effective CPD). In both cases, the key features of effective CPD were similar. The present section focuses on teachers' broad views.

A wide range of responses was received, perhaps pointing to the challenge facing CPD providers in meeting these diverse requirements. Yet, a degree of consensus could be identified and teachers' responses have been grouped into six broad categories. Echoing findings from the international literature, teachers felt that effective CPD was that which: is relevant and applicable (50 responses); is practical in nature (27 responses); provides new knowledge (23 responses) and opens up horizons (7 responses); is ongoing (16 responses); delivered by experienced and high quality tutors (15 responses); involves interaction among colleagues and tutors (13 responses); provides resources (8 resources; and is of sufficient duration (5 responses). In particular:

- PE-CPD content that could be applied in their everyday work was important for the majority of these teachers.
- For twenty five teachers (43%), practical CPD meant being physically active and getting involved in experiential learning opportunities. As one teacher put it: 'CPD activities need to be practical rather than sitting in a classroom passively listening to the presenter'. For two teachers, practical CPD meant observing teaching demonstrations by

experts (i.e. model teaching) and involved ‘teachers receiving practical advice’.

- Twenty three teachers (40%) reported that a CPD experience is effective when it provides ‘new knowledge’, including new knowledge on teaching methodology (15 responses), new developments in education (5 responses) and PE (7 responses).
- Sixteen teachers (28%) believed that effective CPD is systematic and ‘transcends 1-2 days courses’.
- Fifteen teachers (26%) drew attention to the tutors’ knowledge, teaching experience, and communication skills as important factors in CPD effectiveness. Examples include: “tutors’ ability to transfer the knowledge”; and “tutors’ competence and level of education”.
- Thirteen teachers (22%) supported opportunities for interactions with other teachers and tutors as encompassing meaningful learning. For example, one teacher wrote: ‘meeting with colleagues is important because we exchange views and solutions to existing problems by drawing upon our experiences’. Other teachers viewed collegial CPD as an opportunity to begin CPD on teachers’ starting points.
- Eight teachers (14%) stressed the need for resources, notes, books and other material to support teachers’ work.
- Seven teachers (12%) stressed that new knowledge should challenge teachers to ‘open up horizons’, ‘expand their practices’, and support ‘teacher reflection upon practice’. One teacher perceived effective CPD practices as encompassing opportunities for teachers to not only reflect upon their work but also critically examine the nature of the subject matter itself as represented in the National Curriculum. One teacher argued that CPD is effective when ‘it introduces new ways of thinking’ and another claimed: “[CPD is effective when it] challenges us to engage in ongoing development and learning on our own volition”.

4.2.3 How do PE Teachers Perceive they Learn about Teaching?

The PE teachers were also asked to identify three important sources of learning. Their responses include the following:

- Thirty teachers (52%) wrote that they learn through reading books that are relevant to the subject matter.
- Twenty nine teachers (50%) identified CPD (8 responses) and seminars (21 responses) as important sources of learning.
- Twenty four teachers (41%) felt that they learn while teaching – when they implement new knowledge, identify problems, and adapt new material (4 responses); when they interact with the pupils (3 responses).
- Fifteen teachers (26%) reported that they learn from the internet (9 responses), new technology (4 responses) and TV (2 responses).
- Fourteen teachers (24%) reported learning from and with other teachers. Two of these teachers explained that exchanging views, ideas, experiences, and knowledge with other teachers is important because it takes you to levels that you could not reach alone.
- Ten teachers (17%) felt that they learn a lot about teaching PE from previous experiences as athletes (7 responses) and past or current coaching experiences (3 responses).
- One teacher (2%) declared that he feels he learns mainly in isolation.
- Finally, one teacher (2%) argued that he did not feel his professional knowledge and practice have improved in any significant ways throughout his career.

4.3 CPD Stakeholders

As previously reported, six CPD stakeholders participated in the present study. Individual interviews were conducted with a school advisor (Andrew, Sep05), one senior member of staff of a Greek university (Ruth, Mar06), a member of the Pedagogic Institute (Patrick, Mar06), and a representative of the teachers' union association (Mark, Sep06). A group interview was conducted with two senior members of staff of a Greek university (Matthew & Christine, Dec06). Information on the Greek educational context was presented in section 2.2. Individual reports follow, structured under the headings of the second (What is the nature and quality of existing PE-CPD

provision?) and third (What are the features of effective PE-CPD?) research questions.

4.3.1 Andrew

Andrew was a school advisor for PE in a borough of Athens. Andrew had experienced the Greek educational system from a range of different positions, as a primary and secondary PE teacher, university tutor (teacher educator), and school advisor. According to Andrew, one of the most important professional responsibilities of the school advisors is to support teacher learning in two fundamental ways: first, to inform PE teachers about new developments in the subject area; and second, to consult and advise teachers about pedagogical or instructional issues or problems:

For instance, I can take a group of teachers and visit a school, observe the PE teacher's lesson, and follow-up with a discussion which can be based on what we have just observed, what could be better (p. 3).

For Andrew, the existing CPD policy framework is 'adequate' and sufficient; albeit rarely implemented in its entirety (p. 5). For Andrew, lack of funding is usually the key issue. Andrew explained that due to a disproportionate allocation of school advisors to teachers, he had ended up being responsible for at least 2000 PE teachers across 4 boroughs; making it almost impossible to explore and meet the needs of all these teachers. Andrew stressed that his situation was not the 'norm'. However, he explained that even though other school advisors had a less demanding workload, their allocation of teachers was still disproportionately high. Andrew argued that from the school year 2006-2007, each borough would acquire a school advisor (thus one school advisor will be responsible for 250 PE teachers).

i. What is the nature and quality of effective PE-CPD provision?

Andrew was acutely aware that current provision had a number of significant limitations. One of the first points Andrew raised was that the quantity and quality of CPD opportunities available to teachers were problematic:

Not many CPD opportunities are available to teachers. Teachers, although entitled to continuing development, are only rarely having the opportunity to attend those activities that are relevant to their professional needs (p. 2).

This ellipsis in CPD provision was attributed to a number of factors. Firstly, Andrew stressed that there has been an overemphasis on designing and implementing CPD opportunities for professional developers, while teachers' needs have been overlooked or neglected:

During the last years, many CPD are planned for the members of the Pedagogical Institute.However, I would like to see more CPD opportunities to reach the foundation of our educational system; that is the teachers. Not much CPD is going on if we [the school advisor] do not deliver any (p. 3).

A further fact raised by Andrew was that, over the course of the last 15-20 years, CPD practices and strategies have not been essentially changed or improved:

There is a lack of knowledge regarding effective CPD, how CPD activities can be designed reflecting current views about the nature of learning, and even how CPD can be implemented in the school environment (p. 6).

Reflecting on his personal experiences as a professional developer, Andrew stressed that model teaching is particularly effective for two reasons. First, delegate teachers have the opportunity to directly observe or participate in a lesson that takes place in an environment that is relevant to the actual working conditions of each teacher:

It [model teaching] is very powerful because it focuses on teaching, and teachers can see how things might work in different ways and they can learn a lot (p. 2).

Second, CPD providers can work closely with teachers and collectively generate substantial and practical solutions to a range of issues that are raised by the teachers themselves:

Teachers can see the relevance and because they understand what is going on they have many questions and it is very powerful indeed (p. 2).

Furthermore, Andrew expressed his concerns about the prominent/dominant overemphasis on technocratic approaches to teaching and learning PE:

I believe that skills are only the means to something bigger. But many people do not agree and especially coaches go to courses and they focus on skills alone. This clearly does not work, this goes against the holistic education the Greek system envisions (p. 8).

Andrew also stressed that the existing lack of structures for teacher and school evaluation contributes significantly to the ad hoc nature of current CPD provision:

Teachers have never been asked to think what they want to learn, what they need to learn and this is a problem that is clearly linked to CPD. With a lack of evaluation structure, how can we and the teachers know what they should be learning? (p. 10).

ii. What are the features of effective PE-CPD provision?

Andrew suggested the adoption of a more comprehensive approach to teachers' CPD, including more variety in CPD strategies employed by the professional developers:

CPD providers must access existing knowledge and we must research what works as well. PE-CPD should offer a wide range of opportunities to teachers because there is a lot of variety in teachers' interests (p. 9).

Andrew argued that local design and delivery of CPD is a powerful approach because it allows professional developers to connect with teachers and meet their needs:

It is very important that we send out to schools explaining the range of activities on offer, and the schools and teachers pick the ones that they really want. So we should not be delivering things that people do not want (p. 6).

Andrew also suggested 'in-formalising formal CPD structures, including opportunities for discussion and sharing of ideas' (p. 6).

iii. Summary

In summary:

- Andrew drew attention to the limited PE-CPD provision that fails to meet PE teachers' needs.
- Despite increasing CPD opportunities for CPD providers, Andrew argued that there is a lack of knowledge at the delivery level, which leads to passive professional learning opportunities for PE teachers and limited opportunities for meaningful, genuine interactions. Andrew also argued that a technocratic approach has dominated PE-CPD provision.
- Andrew supported more variety in PE-CPD design and delivery and a comprehensive approach to PE-CPD, where professional developers develop a better understanding of teaching and learning in CPD.

4.3.2 Matthew and Christine

Matthew and Christine are senior staff in a faculty of physical education and sport sciences in Greece. Since the early 1990s, both Matthew and Christine were involved in designing and delivering PE-CPD courses predominantly in two Regional Training Centres (PEK). They reported that the dominant form of delivery was one-shot courses, combining theory and practice, designed to 'transmit new knowledge to teachers by drawing upon the relevant literature' (Matthew, p. 11). Drawing upon their latest PE-CPD experiences, Matthew and Christine explained that priority was given to 'realistic', yet effective ideas in order to support teachers' work in Greek state schools with limited facilities:

Matthew: We had many examples and ideas on how to deliver good quality PE lessons under the existing conditions.

Christine: Yes, I worked with schools and teachers and we had prepared material, we had video evidence of work in primary schools, with actual pupils and teachers working on the ideas (p.11).

Matthew also talked about the need to "give teachers the space to talk and share their problems" (p. 13); yet it seems that they did not structure in any

particular way teachers' interactions to make them a meaningful learning experience:

I told Christine and x [colleague] to give them half of the time to teachers to let their steam off; to say what bothers them and half of the time to do our bit (Matthew, p. 11).

i. What is the nature and quality of existing PE-CPD provision?

Despite the fact that both Matthew and Christine felt that they were offering meaningful PE-CPD experiences, focusing on teaching and learning, they believed that the majority of existing PE-CPD courses are highly technocratic in nature:

For many years there are some people who are coaches and they focus on skills, and how to teach skillsand these are viewed as an end in themselves rather than a means to achieve other PE purposes (Matthew, p. 6).

Even more problematically for Matthew, this kind of provision tended to be repetitive of previous provision:

I understand some PE teachers when they resist and they do not find CPD effective and ask 'are you [professional developer] here to teach me how to teach basketball, or football or traditional dances? I know how to do that! (p. 1).

Furthermore, Matthew pointed out that the overall pattern of PE-CPD provision is brief, fragmentary, and rarely developmental or systematic:

At present, the development of knowledge is occurring at speed, things are constantly changing, but CPD provision is very slow and unsystematic and cannot meet the emerging demands set to teachers and, thus, teachers have difficulties to put new things into practice that can have a positive impact on their pupils. In Greece, CPD is designed and implemented haphazardly and I cannot see a degree of coherence and continuity (p. 3).

Therefore, for Matthew, existing provision failed to achieve the main anticipated CPD purpose as stated in policy documents, that is enhance or renew teachers' knowledge:

According to the policy documents, CPD should be about enhancing teachers' knowledge, keep them up-to-date with anything new, and refresh their knowledge. This is in theory, it does not happen in practice because CPD

courses are very rare and professional developers do not have the tools, they are not in a position to enhance their knowledge (p. 4).

In that framework, both Matthew and Christine argued that there are some effective individual PE-CPD programmes in Greece, designed and implemented by professional developers who are keen to learn and introduce new concepts and ideas to teachers. Nevertheless, they both implied that there are not structures and mechanisms in place to ensure a degree of coherency, consistency, and credibility in the quality of PE-CPD delivery. For example:

Today, the quality of CPD depends on the individual tutor's knowledge and commitment (Christine, p. 2).

There are some tutors who are going to courses and delivering coaching sessions. There are other people, however, who want to make it [CPD content and form of delivery] more relevant to teachers' work in schools. They think of the pupils...but, it goes down to the individual tutors and their knowledge (Matthew, p. 6).

Furthermore, Matthew acknowledged the challenging context in which teachers work; criticised teachers' passive role in the learning process; and summarised critique as follows:

Teachers in Greek schools are passive. No one asks them to be creative, to create something new and innovative. They are expected to teach and deliver the national curriculum and that's all. And then, they do not have CPD opportunities that stimulate them, that introduce new ideas and concepts. They go and they hear the same things all over again. And most importantly, they work in very restricted settings and no one really cares; no one ever said that there is a need to improve those facilities. And the quality of tutors is sometimes questionable' (p. 1).

ii. What are the features of effective PE-CPD provision?

In that framework, both Matthew and Christine stressed that PE-CPD should not be narrowly conceived as a vehicle to enhance teachers' knowledge but rather it should be understood as a central asset or a powerful tool in the process of teacher professional socialisation:

Christine: There are some stages in the process of teacher socialisation. At the beginning they are concerned about their own competency, how they appear to their students, to other teachers, but if teachers are not supported in any way, they might spend 30–40 years in teaching at this stage, worried about their own incompetence or lack of facilities that inhibit their work, rather than question how and what pupils learn.

Matthew: CPD should provide substantial support to teachers to this process of development and change (p. 8).

For Matthew and Christine, PE teachers need ongoing and sustained support and challenging external input in order to climb to the next stage of development:

If no one ever challenges teachers to think about all these dimensions, they will remain at the same level, teaching will become routine and they will repeat the same mistakes (Matthew, p. 8).

Teachers need to have opportunities to engage in discussions about PE purpose, where does PE go? What is the emphasis? And these discussions should lead to a result, a conclusion that teachers could take and use in their schools (Christine, p. 14).

In that framework, professional developers must have challenging, up-to-date knowledge:

Professional developers need to be in touch with new knowledge, they need to be sufficiently informed in order to foster teachers to think differently about their work (Matthew, p. 1).

For both Matthew and Christine, universities have an important role to play in teachers' CPD:

CPD should be a natural continuum from initial preparation. It should take place in the university, designed and implemented by people who produce knowledge and know all recent developments (Matthew, p. 4).

Matthew stressed the importance of building university partnerships in order to develop a national framework for PE-CPD:

'We [universities and faculties] need to work together to arrive to a common CPD programme,produce resources based on which CPD activities would be implemented and try to reach all teachers, every year' (p. 9-10).

Matthew and Christine also stressed the importance of building teachers' capacities for active and interactive professional learning in and through PE-CPD:

Teachers need to undertake a different role in CPD. They need to be encouraged to bring in CPD examples of lesson planning to share with colleagues, they need to share ideas that work in their contexts....This is important because it is knowledge generated from practice. (Christine, p. 12).

....but teachers need to be trained to be active, independent learners (Matthew, p. 12).

Matthew and Christine envisioned CPD to be 'regular and systematic' (Christine, p. 3); an integral part of teachers' work, in order to maintain teachers' desire for inquiry and professional learning:

CPD should be embedded in teachers' professional lives, like a habit. Teachers should be aware of its importance and they should be actively engaged in it (Matthew, p. 3).

Finally, Matthew talked about the need for 'constant interactions between teachers and professional developers' (p. 14). He felt that this can be achieved through e-learning:

I read somewhere that some universities have created this system in the internet where teachers could post their ideas. Through such an interactive e-learning environment, of through email, I could send emails to schools with new ideas, or links or papers to read. In that way teachers would learn all the time (Matthew, p. 10-11).

iii. Summary

In summary:

- Matthew and Christine argued that, despite the isolated endeavours of a few good CPD providers, existing PE-CPD provision was dominated by technocratic, repetitive, brief, fragmented, narrow, and passive

professional learning opportunities for PE teachers. They both stressed that there were no mechanisms in place to ensure a degree of coherency and credibility in PE-CPD delivery.

- Matthew and Christine argued that effective PE-CPD opportunities provide ongoing and sustained support and challenge to teachers to enable their continuous development. This necessitates innovative content and the kind of learning opportunities that foster teachers' autonomy, independence, ability to collaborate, and engage in inquiry about their teaching.

4.3.3 Ruth

Ruth is a senior tutor in one of the five faculties of physical education and sport sciences in Greece. Ruth felt that although there seems to be a clear vision about the 'creative, independent pupil/ learner' in recent Greek policy initiatives, PE teachers are not yet familiar with these theoretical positions and still struggle to grasp these notions in practical terms:

When I talk about these things in CPD, I get the feeling that PE teachers do not have clear goals or a vision to direct their actions. They do not know how to evaluate their work. They do not know why they are doing what they are doing and what they have to do next; what is the destination (p. 6).

As a professional developer, Ruth reported providing a strong practical element in PE-CPD because she strongly believed that this is how PE teachers learn in most effective ways:

I believe that PE teachers cannot grasp the new curriculum philosophy or how to provide experiences to pupils to experiment and feel their bodies without actually doing it themselves (p. 3).

Ruth added that 'practical learning experiences can provide insights to teachers, which can help them deeper understand the theory' (p. 3).

- What is the nature and quality of existing PE-CPD provision?*

Ruth criticised the short duration of PE-CPD as inhibiting teachers introduce changes in their practices:

I think, well it is very difficult to change their practice, especially with the new curriculum and the new concepts which for most of them [PE teachers] are completely new, well with the practical bit, it always helps, and they are very happy, but I'm not sure, I do not know how and whether they change their practice (p. 2).

Indeed, Ruth believed that the existing CPD system 'suffers' because there is a lack of clear assessment or quality assurance mechanisms in place in order to ensure or enhance the quality of delivery:

There is no evaluation, or assessment. There is some kind of evaluation forms that teachers fill in at the end of each course, but I do not think these forms are taken into account. I mean teachers might say that x or z are not good, but when these decisions are made locally, and when there is no external evaluation, who guarantees that x and z will not be back next year? (p. 2).

Ruth also claimed that 'no one is evidently and straightforwardly reliable about the quality of CPD' (p. 1); and identified a significant gap between CPD policies – which she felt were well-developed – and CPD practice/implementation:

The ministry of education creates policies, they give money, there are many programmes, they give directions, but there are many questions about whether good things are happening in practice (p. 2).

There are suggestions for providing practice CPD but some tutors overlook these recommendations and no one is there to check whether things are happening as they are supposed to or not' (p. 1).

Ruth also criticised the existing PE-CPD system as it does not have the infrastructure, in terms of the quality of tutors, to provide powerful, collaborative, and active learning opportunities to teachers:

'In PE-CPD, it is not very easy to find these people that can think and deliver in that way [support creative, active learning], and provide these experiences to teachers. But there are few out there. And if we find them, we have to keep them (p. 4).

ii. What are the features of effective PE-CPD provision?

Ruth suggested that three dimensions of the existing PE-CPD system need to be reconsidered in order to improve the nature and quality of teachers' learning experiences. First, Ruth suggested that CPD provision should be targeted appropriately:

It is very important to respect teachers' needs and make serious efforts to address them. This is not happening today, but it is urgent to change (p. 6).

Second, Ruth suggested that PE-CPD should provide opportunities for teachers to expand their understandings about the 'creative learner' and question what kind of citizens they want to create:

I think that they should know what kind of citizens they aim to 'create', and to question: we are talking about the creative person, what does this mean, who is creative and why (p. 6).

Ruth believed that in order for teachers to foster and facilitate active, independent, collaborative, and creative learning experiences to pupils, teachers themselves must have similar genuine professional learning experiences:

This approach is all about how pupils will interact with the teachers and other pupils, how they will collaborate, but also act for themselves, how they can be creative. But, I strongly believe that if teachers want to promote these kinds of experiences, they need to be exposed to the same kind of learning experiences in order to grasp what this is all about (p. 4).

Ruth suggested that teachers should have opportunities to actively engage in an experiential learning process, 'where they experience in practice new knowledge' in order to learn (p. 8).

Finally, Ruth argued that effective CPD that is relevant and meaningful to teachers is based on reflective, knowledgeable, and experienced tutors/professional developers:

I believe that tutors need to be aware of their strengths and weaknesses, they need to know what teachers need to improve their work, and they should provide relevant

learning opportunities. There are some professional developers in PE-CPD that are coaches and have never taught in schools, they do not know what is going on there. This is unacceptable (p. 5).

iii. Summary

In summary:

- Ruth identified a significant gap between CPD policies and CPD practice, reinforced by a lack of quality assurance mechanisms and CPD accountability. Ruth drew attention to the quality of CPD providers.
- Ruth argued that effective PE-CPD is that which: is targeted appropriately according to teachers' needs; engages teachers in discussions about educational purposes; provides active and collaborative professional learning opportunities; and is 'delivered' by high quality CPD providers.

4.3.4 Patrick

At the time of the research, Patrick worked for the Pedagogical Institute in Athens, with many years of experience in designing and delivering CPD courses for PE teachers. Patrick explained that the CPD group in the Pedagogical institute had launched the first phase of the compulsory CPD courses for the new cross-thematic curriculum for all teachers. In terms of CPD purpose, Patrick claimed that CPD provision seeks, or should seek, to support teachers to improve their work in schools. He claimed that CPD is about teachers acquiring new knowledge and skills 'that can be of immediate use to their work contexts' (p. 8); and about 'improving teachers in the areas they are not particularly good at and need to improve or change' (p. 9).

i. What is the nature and quality of existing PE-CPD provision?

Patrick struggled to identify positive elements in the existing PE-CPD system. Patrick argued that little was done in order to address PE teachers' needs and tailor provision. The case of induction training was illustrative:

In the CPD design, they outline how many hours, how many teachers have to attend, and the system is successful in this respect - they try and hit the right numbers....they achieve the quantity, but the real issue is in the quality of programmes. Have the teachers learnt what they needed to learn?I don't think sufficient attention and care is given to the issue of addressing teachers' real needs (p. 5-6).

When PE-CPD courses are delivered, Patrick stressed that the content is rarely relevant to teachers' needs because:

Professional developers rarely made the connections with practice, with the real lives of teachers, and the practical problems they encounter in schools (p. 10).

Overall, Patrick believed that the 'current CPD system had serious inadequacies in both planning and implementation' (p. 7), due to 'insufficient numbers of highly competent professional developers' (p. 5):

We had many occasions when courses were cancelled because no one [teacher] expressed an interest in this programme, most of the times because they believed that this professional developer is not very good. They [teachers] felt that they wouldn't learn anything valuable (p. 5).

Patrick pointed out that there is a lot of variability in the quality of delivery, depending on individual tutors/ professional developers' knowledge, goals, aspirations, philosophies, and priorities:

I could argue that, at the level of implementation, there might be some tutors who do quality work. They should do good work, but this is not always the case (p. 8).

Lack of structured evaluation procedures was a highly problematic issue for Patrick:

The existing evaluation [post-course questionnaire] is not essential, in that I believe it does not detect the real CPD results; it does not provide evidence for its effectiveness (p. 3).

Even more problematically for Patrick, the evaluation findings are not taken into great consideration:

We have teachers filling in these forms, but no one takes these results seriously. and this is the real problem (p. 3).

Patrick talked about the 'system's incapacity to set up, direct, and evaluate quality induction programmes' (p. 6).

We don't know what teachers learn [in CPD] and how they use this learning in practice, because we [professional developers] do not use any form of systematic, meaningful evaluation (p. 5).

ii. What are the features of effective PE-CPD provision?

Patrick felt that there is an urgent need to improve the quality of current PE-CPD provision in order to 'add value for money' (p. 9) and improve teachers' practices. For Patrick, effective professional learning is more likely to occur when professional developers understand the unique features of delegate teachers' background, existing knowledge and contexts, and have a strong subject matter knowledge:

Professional developers need to plan with a thorough understanding and knowledge of the subject area they are going to teach, the curriculum, the teachers who are going to participate, their learning needs and their background, the CPD context within which their programme will take place, for example what has come before and what is planned for the future, and previous research that demonstrates teachers' professional learning needs (p. 6).

Similarly, Patrick strongly believed that effective PE-CPD should be grounded in teachers' practices and needs:

Effective PE-CPD is that which is connected to teachers' realities, teachers' practice and addresses the issues and topics that teachers themselves find problematic in their own teaching contexts (p. 6).

In that context, Patrick suggested that teachers need to engage in structured learning experiences that relate to and resemble their everyday practices:

The important issue is, if the topic is a behavioural or psychological issue for example, there is little point in talking about it in a perfect situation. Effective CPD is when teachers talk about it, share their experiences, and then observe a real lesson, with real pupils, and they can examine all the real problems after (p. 6).

Patrick added that 'theory and practice need to be combined in effective ways so that practice can illustrate and support teachers to understand the theory' (p. 8). Equally important, Patrick stressed that professional developers need to contribute towards developing rigorous evaluation strategies that not only 'measure teachers' satisfaction' but also document the impact of professional development in order to inform the redesign of the programme:

We [professional developers] need to find ways to explore whether teachers believe they learned something new, whether they believe they learnt something useful, practical or not. What did they not learn and what can be improved? Do they want more theory, more practical experiences, so next year we [professional developers] can improve the programme (p. 7).

We [professional developers] need to get feedback, we need to see whether the teacher learning goals were met, have teachers learnt anything useful? We can go to their schools to conduct research to explore whether they have implemented any of that in their practice (p. 11).

iii. Summary

In summary:

- Patrick identified important inadequacies in both CPD planning and implementation, including a lack of: structured and systematic needs identification processes; high quality professional developers; and systematic evaluation procedures to inform future provision.
- For Patrick, effective PE-CPD is that which: professional developers tailor provision to meet teachers' needs and contextual conditions; provides both theory and practice; and is grounded in thorough evaluation processes.

4.3.5 Mark

Mark is a representative from the national secondary teachers' union. Mark commented on the general framework for CPD provision in Greece and provided information on the broader context in which PE-CPD is embedded.

i. What is the nature and quality of existing CPD provision?

Following the establishment of the new CPD structure in the mid 1990s, Mark noted that the field of CPD had become complex and mapping the terrain of provision had become a challenging task. Mark said that ‘an array of different CPD opportunities is becoming available from a variety of CPD providers from both the public and private sector’ (p. 3). Mark argued that the CPD design that dominates current provision includes a range of ‘ad hoc’ CPD courses (p. 2):

‘Ad hoc’, CPD programmes are currently available, which are designed and implemented when new books are introduced, when the curriculum is altered, when a new pedagogical approach needs to be introduced (p. 2).

Mark believed that these ad hoc courses, despite affording a degree of choice and variety to teachers (p. 11), are insufficient to address teachers’ diverse and challenging professional learning needs, partially because the CPD spectrum on offer was limited:

One can identify a number of subjects/ CPD content, focusing on theoretical and practical educational aspects, but possibly the range of the learning opportunities available is not wide. Therefore, it is difficult for all teachers to address their needs (p. 11).

In addition, Mark argued that teachers’ requests for CPD were not always addressed because ‘the CPD programmes implemented were never sufficient in numbers to cover all teachers’ needs’ (p. 11). Even more problematically for Mark, the CPD courses on offer were not designed to address issues that the educational community has identified as fundamental for improving the nature and quality of pupils’ learning experiences within a constantly changing school environment:

There have been some important changes in schools. We moved to extra-curricular activities, where the aim was to support people with learning difficulties, then there was a movement towards including all pupils, with a range of abilities and disabilities. However, if you examine the range and scope of the CPD activities on offer, you will understand that CPD activities on how, for example, teachers can be supported to cope with and improve pupils’ behaviour, or learning when learning is challenging, are minimal (p. 11).

Furthermore, according to Mark, the available CPD activities are not based on a systematic examination of local professional learning needs (i.e. audit process); rather the agendas, content, and form of these opportunities are pre-determined by the CPD providers.

Mark also underlined that many professional developers rely on 'traditional' CPD practices and fail to match CPD strategies to goals:

CPD might seek to introduce a new pedagogical approach, for example, the importance of engaging pupils in active learning. However, professional developers choose a CPD method that is not appropriate to the goals and context of the aim of the programme. They might lecture about active learning. Thus, teachers do not learn and cannot change their practice as a result (p. 3).

Furthermore, Mark believed that, in those cases where new pedagogical approaches are introduced, not only the CPD methods employed but also the duration of the CPD programmes are inadequate to enable teachers to develop a deep understanding of the new approach and initiate changes in their practices (p. 6).

In addition, Mark argued that the actual benefits of presumed 'good' or 'effective' CPD have rarely been examined systematically (p. 6). Furthermore, Mark pointed out that the research methods that are employed are 'hampered by methodological challenges that heavily rely on teachers' self-reports of CPD effectiveness' (p. 6). Mark argued that CPD requires both conceptual clarity and empirically based insights.

However, Mark stressed that these points of critique should not be viewed as referring to CPD as a whole. Mark recognized the significant contribution of European funding and the effective running of a number of CPD programmes, including the National CPD programme on Information Technology (IT). However, he stressed that apart from a small number of innovative CPD programmes, 'the bulk of provision is dominated by specifically focused, non-

compulsory courses that are of short duration that do not meet teachers' learning needs' (p. 8).

ii. What are the features of effective CPD provision?

Mark argued that the quality of the learning experience is determined, to a large extent, by the degree to which delegate teachers have sustained opportunities to engage in practical and active learning, and to deeply understand and generate knowledge:

Enhancing teachers' learning experiences require not only to enhance teachers' knowledge but also to support them to experience in practice this new knowledge.

Active participation in the learning process is essential. Simple transmission of knowledge is a narrow approach. Rather, teachers need to have the opportunity to exchange views and experiences, to actively engage in the learning process, to generate knowledge through the CPD activities, and action research (p. 9).

Mark believed that active participation in the learning process is more likely to have sustained professional learning outcomes for teachers than transmission approaches:

Active engagement in the learning process leads to sustained and stable learning outcomes; a learning experience that is more complete and occurs in a pedagogically positive learning environment (p. 9).

For Mark, universities offer significant intellectual resources for professional learning:

The role of the universities in teachers' professional development opportunities need to be prominent for two reasons: first, universities are considered organizations of specialized knowledge; second, university staff engage in educational research which constantly brings new findings and perspectives (p. 2).

Mark pointed towards a kind of support that is based on a thorough audit process; 'a CPD framework', in other words, 'that affords teachers possibilities to choose and focus on CPD that clearly targets their learning needs' (p. 7).

Furthermore, Mark suggested that teachers need increased opportunities to apply and test new knowledge into existing practice:

‘...during the CPD programme, teachers need to have the opportunity to simultaneously apply in practice what they are taught....’ (p. 4).

Furthermore, Mark envisioned ongoing professional development deeply embedded in the actual work of teachers and suggested a different conceptualization of the relationship between the school and the CPD centre. He argued that in order to reform teaching, all endeavours need to focus on reforming schools, transforming them into local educational and cultural centres:

Traditionally, we have seen schools here and CPD centres there. We envisage a genuine collaboration between them to engage teachers in sustained professional learning experiences.

Schools need to open to the local authority and transform into local educational centres. Action research is crucial for expanding both pupils’ and teachers’ knowledge and understanding of local conditions and the implications of their actions to their own contexts and wider society.

However, drawing on existing research in Greece, Mark recognised that existing school structures seem to work against the kind of powerful collaborative culture and sustained learning opportunities that Mark perceived as essential in expanding teachers’ learning and supporting teachers’ to change and improve their practice. Mark stressed that traditionally, teachers in Greek schools rarely have the opportunity to work together and learn from one another and, as a consequence, teachers ‘remain enclosed in traditional methodological approaches’.

iii. Summary

In summary,

- Mark pointed to the ad hoc, unsystematic, and limited nature of current CPD provision, which fails to meet teachers’ diverse needs. Lack of needs identification processes, CPD topics that do not address ‘hot’

educational issues and 'traditional' forms of delivery were identified as particularly problematic issues that needed to be urgently addressing.

- For Mark, effective CPD is that which: is practical; provides opportunities for active learning and construction of knowledge/ understandings; and is embedded in teachers' work.

4.4 Conclusion

This chapter reported the main issues raised by the research participants under the headings of the three research questions. All research participants identified fundamental flaws in the existing PE-CPD system. These shortcomings included issues around the quantity/availability of PE-CPD and questions about the quality of what was available. The findings also illustrated a great variety in the case study teachers' experiences, backgrounds and ways of engagement in professional learning. The next chapter draws upon existing international literature to provide a deeper understanding of some of the key issues raised by the research participants in the present study.

Chapter 5: Discussion of Findings

The previous chapter reported the first level of analysis of the data in individual teacher case study reports (section 4.1), responses to the open-ended profile questionnaire (section 4.2), and summary of the CPD stakeholders' interviews (section 4.3). As previously reported (chapter 1), the present study had three main research questions:

- How do Greek PE teachers perceive they learn about teaching?
- What do Greek PE teachers and CPD stakeholders believe about the nature and quality of existing PE-CPD provision?
- What are the features of effective CPD and PE-CPD according to PE teachers and CPD stakeholders?

This chapter addresses in turn the most important 'themes' from the research in response to the three research questions.

5.1 How Do Greek PE Teachers Perceive They Learn About Teaching?

This section includes the most frequently themes discussed with the case study teachers in response to the first research question. In particular, five themes are discussed:

- 5.1.1 These teachers acknowledged that the teaching context afforded opportunities for professional learning, especially during the first challenging years in the job;
- 5.1.2 There was an agreement that whilst knowledge or ideas can be 'acquired' in various settings, learning was understood as involving an active construction of personal understandings in context;
- 5.1.3 These teachers also valued collegial interactions and dialogue, albeit different teachers experienced interactions in different ways;
- 5.1.4 Lack of adequate PE facilities, restrictive school structures and limited external support (e.g. CPD) were identified by these teachers as significant barriers to professional learning;
- 5.1.5 The findings, however, suggested that different teachers dealt with these constraining factors in different ways giving support to the

argument that these teachers' capacity for ongoing learning was affected by not only the physical and social context in which they worked but also by a number of personal factors.

These themes are now discussed in turn.

5.1.1 Learning as Participation In-Context and Reflective Practice

All the case study teachers reported various ways in which they believed they could engage in professional learning. Despite the fact that these teachers did not explicitly recognise the school context as a site for CPD, they acknowledged the classroom as a source of learning. For the majority of these teachers, examining aspects of their lessons retrospectively and elaborating on pupils' reactions, especially during the first challenging years in the job, was a natural part of the process of learning to teach. All teachers explained that when new practices 'worked' with their pupils, these were retained; others were abandoned. Elisabeth provided a specific example of how thinking about pupils' participation in PE helped her to understand what PE is NOT about: i.e. teaching technical skills alone. Elisabeth could not identify a specific moment when this insight occurred; rather it was a natural part of her job and an ongoing process. Like Elisabeth, Jon demonstrated sensitivity to the needs of the students with diverse intellectual, physical, and social characteristics, and this was viewed as personal professional knowledge generated in the context of practice. Therefore, despite the fact that not all teachers' references to what they actually learned from experience were clear or explicit, they all agreed that upon entering the teaching profession, they learned quite naturally from practice.

These teachers, therefore, understood teacher learning as a process of increasing participation in the practice of teaching (Adler, 2000), where teachers develop personal knowledge (Clandinin & Connelly, 1995), wisdom of practice (Shulman, 2007), or craft knowledge (Eraut, 1994). For these teachers, similar to Groundwater-Smith & Dadds' (2004) point, practice itself entailed powerful professional learning. This is a view that represents a

'situated' understanding of learning discussed in section 2.3.4 in the literature review. The finding that teachers develop new insights and learn in and through teaching experience is not new. Day (1993) argued that 'the first priority of teachers is tolearn coping strategies which will allow them to work towards increasing their effectiveness in support student learning' (p. 222). For Van Manen (1995), learning in the context of practice is embedded in teaching because teachers are constantly distinguishing what is good, or most appropriate, from what is bad, or inappropriate, for their pupils. Tomlinson (1999a) further explained that teachers find multiple occasions for learning in context because teaching involves a great deal of irregularity, complexity and unpredictability.

Learning in context, however, meant different things to different teachers. Three case study teachers (Mary, Peter and Clive) made explicit reference to the term 'reflection' as a powerful – conscious- process of professional learning. It could be argued that Philip's account represents a form of double-loop learning (Argyris & Schon, 1978), where the learners 'build upon prior learning in ways that may challenge or move beyond their existing system of beliefs and understandings' (Lee et al., 2004, p. 8). Similar to Van Mahen's (1995) point, Philip generated substantial changes in his practice by questioning taken for granted beliefs and actions. This experience lies at the very heart of Schon's (1983) theorising:

Through reflection, he [practitioner] can surface and criticize the tacit understandings that have grown up around the repetitive experiences of a specialised practice, and can make new sense of the situations of uncertainty or uniqueness (Schon, 1983, p. 61).

This process presupposes that learners evolve and revise their understandings in the light of a new insight and this requires a conceptual 'shift', or a change of lanes for the learners to '*become different* and move beyond where they are (Greene, 1995, p. 13, emphasis added). This view of 'departure' from existing perceptions and understandings is also supported by Mezirow's (1997; 1996; 1994; 1991; 1981) theorising on 'transformative' learning as a theory that captures the nature of adult learning. Mezirow's

(1997) fundamental assumption is that adults progress in their learning and understanding through shifting, reconstruing, and transforming their existing 'frames of reference' (p. 5) and 'shifts in meaning perspectives' (p. 228); and this can be achieved through reflection in the unexamined assumptions of existing beliefs.

For three other teachers (Hannah, Margaret and Jon), however, learning in context was neither planned nor systematic. It was rather what Eraut (2000) described as a spontaneous reaction to 'recent, current, or imminent situations without any time being specifically set aside for it' (in Lee et al., 2004, p. 115). It could be argued, however, that with the exception of the case of Philip, the examples provided by all other case study teachers represented what Argyris & Schon (1978) called 'single-loop learning', where the learners react and adapt to circumstances as they change (Lee et al., 2004); or what Eraut (2000) called 'reactive learning'. Furthermore, crucially, the available data suggested that these teachers neither challenged their core pedagogical practices nor questioned what has become 'routine', as existing theorising on reflection suggests. Therefore, for reasons explored in sections 5.1.4 and 5.1.5 below, there is evidence to suggest that this spontaneous, unsystematic, isolated reflection was not sustained over time and some teachers seemed to struggle to use this tool – over time- to learn in and through practice.

Although acknowledging that meaningful professional learning can and does occur unconsciously, the evidence from this study reinforces existing understandings that systematic, conscious reflective practice is essential in building, broadening, and extending the capacities of teachers for self-directed growth and open-mindedness (Zeichner & Liston, 1987). Korthagen and colleagues (2001) acknowledged that although teachers learn naturally in the context of their work, this can be limited; and it is only through regular, systematic reflection that learners can gain access to necessary knowledge about their work processes and about themselves. Rosenholtz (1989) explained that when teachers work in isolation, like these teachers, they must construct an individual subjective conception of 'good practice' or excellent teaching. However, in this context, improvements in teaching are an

individual enterprise and professional learning is dependent upon teachers' own ability to discern problems, develop alternative solutions and assess the outcome. In the perceived absence of external support, as these teachers reported, this is particularly problematic. Day (1993) stressed that individual reflection is a necessary but not sufficient conditions for professional learning and wrote: 'Confrontation either by self or others must occur; [but] teachers need challenge and support if their professional development is to be enhanced' (p. 88).

Findings from this study, therefore, showed that teachers need guidance and support in order to engage in meaningful reflection (Attart & Armour, 2006) and develop their capacity for ongoing learning (Genor, 2005). This study also highlighted an area that warrants further research; that is, although there is extensive literature on how to prepare student teachers to be reflective (Brookfield, 1995; Genor, 2005; Zeichner & Liston, 1996), less attention (both conceptually and empirically) has been given to how experienced teachers learn from and through reflection and develop 'growth competence' (Korthagen & Vasalos, 2005) over the years.

5.1.2 Learning as 'Construction'

All teachers reported learning opportunities in many other contexts and situations. For example, ideas for lessons came from the world around them; from books, sport competitions, festivals, the internet and television. They also claimed that they gained new insights in CPD courses, while engaging in professional dialogue with other teachers, or when they observed young people play and other teachers teach. However, there was an agreement that whilst knowledge, ideas, or insights can be 'acquired' or 'generated' in various settings, genuine professional learning is an individual process, profoundly situated in the context of practice. In particular, the majority of these case study teachers (Philip, Clive, Jon, Peter, Margaret and Hannah), similar to findings from other studies (Cordingley & Bell, 2002; Cordingley et al., 2003; Lortie, 2002), pointed consistently to the need to interpret, use, adapt, and further develop new knowledge (e.g. skill, concept, theory, teaching practice)

'acquired' in multiple contexts (e.g. CPD, colleagues, or other sources) in context in order to 'match' their personal styles and situations. In other words, these teachers seemed to select 'bits' of knowledge that suit them, rejecting other bits that fail to have meaning for or relevance to their existing understandings.

Learning from this perspective is, therefore, a dynamic active construction of meaning situated in the evolving physical and social world in which teachers work. According to Hodkinson et al. (2007b), learners construct knowledge, skills, understandings that are partly unique to them, as 'they make sense of and come to own what they are learning' (p. 14). Lortie (2002) stressed that 'teachers insist that influences from others are screened through personal conceptions and subjected to pragmatic trial' (p. 80); and added that teachers only understand something fully after they have taught it for some time. Similarly, Peressini et al. (2004) cited research projects that described how novice teachers adopted concepts and practices in various settings and how they further modified them through use. In the context of the present study, one case study teacher, Peter for example, did not perceive knowledge as a given entity that is acquired in a structured environment and transferred to teaching; but rather as something fluid and dynamic that can only be fully grasped through use in real classrooms. Similarly, Margaret said that she needed to 'play' with new knowledge in multiple contexts, and that she could fully grasp new knowledge through implementation and repetition. Clive described how he brought together knowledge from multiple sources, incorporated it into existing understandings and practices, and then adapted it further through use. Clive and Jon vividly illustrated how they combined, what Fuller et al. (2005) called, 'personal' and 'cultural' knowledge into an amalgam that had been developed over the years and which provided the framework for making sense of new knowledge.

In this context, both constructivism and situated learning theories can be of some help in further understanding the process of learning as experienced by these teachers and draw useful implications for PE-CPD. As was noted in section 2.3.3, learning from a constructivist perspective is an active, ongoing

process where learners reflect upon their current and past knowledge and experiences to generate new ideas and concepts (Doolittle and Camp, 2003; Harris, 2000; Imants, 2002; Newmann, 1994; Windschitl, 2002). O'Connor (1998) argued that constructivism focuses on individuals 'negotiating their way into the world of objects and relations' (p. 55). Engestrom (2001), from the activity theory perspective, has argued the same thing: that learning is an action-oriented process of construction and reconstruction. Situated learning theory (section 2.3.4) accepts the constructed nature of knowledge and further suggests that learning is located in the 'existential situation' in which teachers/ learners live and work and is rooted in their embodied being (Van Manen, 1995, p. 45). Peressini et al. (2004) argued that knowledge and understandings are inseparable from the situations in which they are embedded and that 'knowledge grows more complex and becomes 'useful' in a variety of contexts through the learner's participation in these different contexts' (p. 73). This kind of learning – where there is an interplay between different contexts - was evident in these case study teachers' accounts of how they felt they learn.

Situated theorists, however, do not accept the cognitive notion of knowledge 'transfer' where it is assumed that knowledge is 'acquired' in one context, 'internalised' in the learner's mind, and 're-applied' and used in another context as 'it is'. Rather, situated theorists argue that learners are engaged in the process of 'recontextualisation', which has been defined as 'the transformation of resources and discourses as they are disembedded from one social context and embedded into another' (Peressini et al., 2004, p. 70). It appears that the notion of recontextualisation differs from the cognitive concept of 'transfer' in one fundamental way. As discussed in section 2.3.5, while cognitive theorists view learning as the acquisition of a body of knowledge and seek to explore the ways in which this knowledge can be presented to the teachers-learners so that can be taken away and used (as it is) in the school context, situated theorists acknowledge the active role of teachers in their own learning and the situated nature of knowledge development. This latter interpretation is clearly reflected in this study in the teachers' accounts of the ways they feel they learn.

A situated understanding of teacher learning has clear implications for structured, formal PE-CPD provision. It seems clear, for example, that PE-CPD content cannot be viewed as ready-made knowledge designed to solve teachers' problems, but instead as a tool that must be adapted, understood and further developed through use. This approach also calls into question the value of PE-CPD that is offered exclusively off the school site, where teachers are passive in the learning process and where teachers are unable to 'recontextualise' theory / new knowledge into their pedagogical practices. Elmore (2002) confirmed that 'teachers have very strong ideas about which kinds of practices will work for their students and which will not (p. 18). PE-CPD providers, therefore, need to provide the space for PE teachers to make this dynamic engagement with new knowledge.

5.1.3 Learning is Social

The majority of these teachers claimed that there was no sufficient infrastructure in their schools to support genuine collaborative learning (see section 5.1.4 below) and some of them felt that they worked in professional isolation. Yet, there were also examples in the case studies where these teachers had turned to 'trusted' colleagues- friends (not just anybody in the school) for collegial support and guidance.

The importance of collegial interactions was stressed by all case study teachers. However, different teachers held slightly different understandings of what one can learn through these. Elisabeth and Mary explained that they felt teacher learning was most effective when they were able to share ideas with familiar colleagues between whom there exists mutual respect for the knowledge and capabilities of one another. Hannah, Peter, and Jon recalled, early in their careers, visiting colleagues and friends in order to observe and learn from them. Such interactions and dialogue were important, according to these teachers, because teachers talked about issues and struggles that were relevant to their work. Peter argued that collegial conversations can afford teachers the kind of experiences that are much more meaningful and relevant

to their needs than traditional CPD lectures because, as he put it, 'we talk about our realities rather than the ideal'. Jon said that colleagues and friends were valuable in helping him identify appropriate resources and Clive explained that PE teachers are often knowledgeable in some areas, but that they need support in other areas where they are less skilled or less well informed.

The importance of learning as a social entity has been extensively theorised (Fuller et al., 2005; Hodson & Hodson, 1998; Vygotsky, 1978) and empirically documented (Bolam et al., 2005; Little, 2002; Stoll & Louis, 2007; WestEd, 2000) and it is not a new finding. Lortie (2002) cited studies as early as the 1970s which reported that teachers turned to other teachers for help and placed a high value on the informal exchange of opinions and experiences. In the 1980s, Berlak & Berlak (1981) reported that 'we have some evidence that teachers learn their craft largely from one another' (cited in Smyth, 1991, p. 86). More recent work continues to point to the importance and educational benefits of collegial interactions (Little, 2002). Russell & Bullock (1999) argued that when teachers share their personal experiences of teaching, they engage in the process of naming, articulating and better understanding their existing 'tacit' knowledge. Nonaka et al. (2006) refer to this as 'knowledge conversations' whereby tacit knowledge is externalised and tuned into an explicit form. Drawing on the work of Vygotsky (1978) and the theory of social constructivism, Hodson & Hodson (1998) stressed the importance of the use of language in the context of social relations as a tool to 'create the possibility of thought and organise the thinking processes' (p. 36). Importantly, two teachers (Elisabeth and Hannah) in the present study pointed to the power of externalising and articulating their knowledge and ideas.

Parker (1995) located the development of understanding in the context of social interactions with other human beings and defined learning as the progressive ability to get into and learn from certain kinds of social relationships. Clear links can be drawn here with the existing theorising on learning as participation in Communities of Practice (Wenger, 1998) discussed in section 2.3.5. Studies seeking to explore and understand teacher

collaboration argue that when teachers work together over time, they can generate/ construct collective knowledge that is more powerful than most individuals could have achieved working alone (O'Connor, 1998; Rosenholtz, 1989). In the PE field, Armour & Yelling (2007) found that for the teachers in their study, informal learning with and from colleagues was a very flexible, accessible and supportive way of learning something new; and it was reported that 'the teachers used this mode of learning to compensate for the shortcomings of 'official' CPD' (p. 189). Similarly, some of the teachers in this study in Greece reported that interacting with colleagues was meaningful and relevant to their needs at a time when CPD was irrelevant, inapplicable, and non-systematic (see section 5.2.1 below).

It could be argued, therefore, that one of the pillars of effective PE-CPD is already in place- teachers want to interact; they do it spontaneously and they find it valuable. Yet, evidence also suggested that few case study teachers found that they had the skills or the support needed to maximise the potential of professional interactions. Some case study teachers (Philip, Mary and Margaret) perceived collegial interactions to be narrow in scope and superficial in nature. Margaret and Mary questioned the degree to which teacher interactions foster teachers to take this 'extra mile' and reconsider fundamental assumptions about their work. Philip stressed that when teachers interact, they are too often preoccupied with specific subject content knowledge losing sight of broader educational purposes and pupil learning. Referring to the 'how' of teacher interactions, Mary made a distinction between professional dialogue that is largely descriptive and that which is analytic and explanatory in nature. Furthermore, the findings suggested that most of what these teachers described was non-scheduled, informal instances of interactions during which teachers sought for practical ideas to add to their existing repertoire, rather than questioning or transforming their practices. In this context, the case study teachers felt that these experiences had limited transformative power; and envisioned powerful collaborative structures that would add a significant element to their professional learning experiences.

Since the 1970s, researchers have not only pointed to the importance, but also raised concerns about the nature and quality of teacher interactions questioning the extent to which teacher interactions challenge or reinforce existing practices and lead to meaningful teacher change or not (Hargreaves, 2000; 1999; King, 2001; Little, 1993a; Putnam & Borko, 1997; Scribner, 1999; Smyth, 1991; Wilson & Berne, 1999). It was as early as the mid 1970s that Lortie (1975) cautioned that teachers share the 'tricks of the trade' missing the link with existing or emerging theories, conceptions or assumptions which underpin their practice. Similarly, Smyth (1991) claimed that teachers' discussions failed to reach deep down to the structural basis of the meanings and values these teachers held. Hargreaves (1992) also argued that when teachers talk and share experiences they 'stay with routine advice-giving, trick-trading and material-sharing of a more immediate, specific and technical nature' to the exclusion of a more critical examination of their own and others' practices (p. 228). However, it is widely believed that this instrumental view of social interactions is problematic because, according to Windschitl (2002), the degree to which teachers learn in collaborative activities is dependent upon the quality – and depth - of the discussion:

Talk that is interpretive- generated in the service of analysis or explanations – is associated with more significant learning gains than talk that is merely descriptive (p. 146).

Ball & Cohen (1999) and Wilson & Berne (1999) theorised that teacher learning requires some 'disequilibrium' and that important teacher learning emerges only from occasions when teachers' extant assumptions are challenged. Therefore, it has been argued that if collegial discussions (or in fact any CPD experience) neither disrupt teachers' existing views nor challenge them to go outside their comfort zone, there is limited change involved. In this context, according to Tripp (2004), teachers' practices tend to be more of the same only better.

These findings do not suggest that teacher interactions, as experienced by these case study teachers, were meaningless; rather it is argued that there is an urgent need to find ways to foster sustained collaborative opportunities

such that teachers can be supported to foster better learning for all their pupils. Findings suggest, as it has been suggested elsewhere, that there is an urgent need to ground CPD policies and practices upon a sound conceptual understanding of teacher career-long learning. Sustained, collaborative professional learning is one way forward. However, this requires a dramatic cultural and structural shift in the ways teachers, professional developers, policy makers and others talk about and understand the role of the teaching workforce in the contemporary, knowledge driven society. This shift must be informed by rigorous research; because, even if teacher collaboration and communities of practice is the way forward, real change will not occur without an in-depth analysis of the contextual reality of Greek schools and provide adequate support and respect to teachers.

5.1.4 'External' Barriers to Professional Learning

As previously discussed (section 5.1.1), all case study teachers argued that upon entering the teaching profession they learned, quite naturally, from practice; and sought for gaining new insights in various contexts. They also shared an understanding of professional learning as an active construction or interpretation of knowledge in a way that is deeply embedded (or situated) in the context of practice (section 5.1.2). These teachers also valued collegial interactions, although recognised that they are not always 'transformative' (section 5.1.3). An analysis of the evidence, however, also suggested that all case study teachers pointed to the same impediments or barriers to learning. First, they reported that the Greek government appeared to have assumed limited responsibility for the professional development of PE teachers. For these teachers, however, limited structured opportunities available meant limited opportunities to learn something new, bring fresh ideas - and challenge - existing practice. As explained in section 5.1.5 and 5.2.1 below, as a consequence, some of these teachers felt incapacitated to engage in ongoing and sustained professional learning. These teachers also pointed to school structures, and in particularly the inadequacy of available PE facilities (e.g. teaching in the school yard), as a significant barrier to professional learning.

All teachers explained that limited PE facilities limited their ability to teach and, consequently, to learn.

Furthermore, some of these teachers also pointed to existing school cultures that promote teacher individualism and isolation and inhibit teacher collaboration. As reported in chapter 4, all the case study teachers reported working alone for much of the time, in their own contexts. Philip and Clive reported rarely having any opportunity for meaningful interactions with their school colleagues, beyond administrative issues and fixtures. Mary drew particular attention to established cultures of individualism and teacher isolation in Greek schools that inhibit teacher interaction and collaboration. Clive and Margaret also drew attention to some important contextual working conditions for teachers in Greece. For example, two of these case study teachers shared their teaching workload between two different schools and they reported that, for the most part, they worked alone. Philip also commented that working with supply, non-permanent staff, who still had to secure a permanent teaching post and had to do many different jobs in order to survive economically, negatively impacted on his motivation to engage in meaningful interactions. In essence, it would appear that for these teachers, opportunities to engage in the critical examination of practice in a collective, collaborative way in the context of practice were limited, or even non-existent.

The majority of these case study teachers, therefore, pointed to not only limited structured opportunities (section 5.2.1) that would bring fresh ideas and challenge existing practice but also a constraining workplace that inhibited them to learn. Links could be drawn here with the notions of 'expansive' and 'restrictive' learning environments. Based on research evidence from a range of businesses in the UK, Fuller & Unwin (2004) introduced the 'expansive-restrictive' continuum as a conceptual framework for analysing workplace learning. The purpose was to identify features of the work environment that create opportunities for, or barriers to, professional learning. According to Fuller & Unwin (2004), an expansive learning environment features the characteristics of a 'community of practice' (Lave & Wenger, 1991) (see section 2.3.4 in literature review). In sharp contrast,

however, the case study teachers' accounts seemed to reflect what Fuller & Unwin (2004) called a 'restrictive learning environment', which promotes isolation; provides limited opportunities for off-the job learning that would enable employees to be exposed to new concepts; neglects the creation and distribution of knowledge; and lacks vision for workplace development (e.g. static). Indeed, some CPD stakeholders and case study teachers claimed that, at the time of the research, there was no clear understanding of the purposes of education and PE.

In the context of educational research, it has been documented that, historically, schools around the world have failed to facilitate meaningful teacher professional development and teacher collaboration. Lortie (2002) argued that schools are traditionally organised around teacher separation rather than teacher interdependence; and explained that 'most teachers still spend most of their time working alone with a group of students in a bounded area' (p. 23). Wilson and Berne (1999) commented that, in the studies they selectively reviewed, teachers had very little experience engaging in open, public, and critical debate about their work and the work of others. Drawing upon the evidence in the present study, it could be argued that all case study teachers seem to be what Huberman (1993) called 'artisans', working primarily alone; and, in this restrictive context, they felt that many learning opportunities were missed.

There are recent efforts in many countries in the world to shift this situation. For example, the UK government seems to be supportive of restructuring schools into 'learning organizations' through the development of 'Professional Learning Communities'. The central idea is to establish a school-wide culture that makes sharing and collaboration ongoing, genuine, and focused on student outcomes (Toole & Louis, 2002). The establishment of Networked Learning Communities (Cocklin et al., 1996; Jackson & Tasker, 2002) is another example of government innovation. These networks are promoted (and funded) as a positive force for knowledge sharing and innovation; an opportunity to make professional practice visible. Yet, although there is strong support in the literature for encouraging school-based, collaborative

professional learning, it is also important to remember that developing, establishing and sustaining such collaborative structures are challenging; and any endeavour to restructure schools must be based on a thorough understanding of the Greek state schools and the teachers that work in them.

5.1.5 The Personal Dimension in Professional Learning

All case study teachers pointed to a number of contextual, organisational, and systemic structures that were perceived to constraint their ability to engage in ongoing and meaningful professional learning. However, the findings also suggest that different teachers dealt with these constraining factors in different ways. The evidence showed that although all 9 case study teachers stressed the importance of ongoing professional learning, they demonstrated different degrees of commitment to and engagement with learning.

Looking across the data, it became apparent that five case study teachers (Mary, Elisabeth, Clive, Kathy and Philip) in this study were able to sustain positive dispositions towards professional learning despite external constraints or missed opportunities. Mary illustrated how she drew upon multiples sources of learning in order to develop all the time and avoid remaining static. Learning, for Elisabeth, meant being and feeling not only professionally competent but also personally fulfilled. Elisabeth claimed that she enjoyed learning so much that she would never quite learning about PE, even after she retires. Clive seemed to have managed to translate contextual constraints into positive experiences by being creative with the available resources. Philip reported learning all the time in the context of his professional practice, through meaningful interactions with his wife (primary teacher) and through informal 'action research'. For these teachers, contextual and other constraints did not have a detrimental effect upon their desire to 'reach out' or to 'look into their own backyard' for finding – although not always successful - new ways of teaching PE. It seems that they had developed what Korthagen et al. (2001) and Korthagen & Vassalos, (2005) called 'growth competence': 'the ability to continue to develop professionally on the basis of internally directed learning' (Korthagen & Vassalos, 2005, p.

48); or what Claxton & Carr (2004) called, 'robustness in learning. Claxton & Carr (2004) defined 'robustness' as 'the tendency to respond in a learning-positive way even when the conditions are not as conducive or supportive as perhaps they [learners] once needed to or appeared to be' (p. 89).

Quite problematically, however, some of the case study teachers (Jon, Peter, Margaret and Hannah) reported that they have struggled to continue to learn throughout their careers. After spending some years in schools, these teachers found it increasingly difficult to challenge themselves in the absence of 'external' input to guide, inform or question their teaching. For Hannah, with limited opportunities to learn something new, there was limited scope for learning in context. Like Hannah, Jon described how the core of his teaching was continuously developing during the early years; but after 20 years in teaching, they both felt that they had developed a strong context-bound understanding of 'what works with their pupils' and eagerly waited for a meaningful experience to learn something new. These teachers seemed to have developed a passive orientation to professional development; and for them, turning inwards, or reflecting upon their practice, was not sufficient for sustained development. In the absence of external guidance or insights, and similar to Rosenholtz's (1989) point, these teachers found it increasingly difficult to locate internal sources for professional renewal. Consequently, they felt *incapacitated* to continue to learn throughout their careers, reporting that, as a consequence, their practices remained unchallenged for years.

These findings raised a fundamental question: why were these case study teachers so varied in the ways in which they engaged (or did not engage) in professional learning? Evidence suggested that these PE teachers' capacity for learning was affected by not only the physical and social context in which they worked but also by a number of personal factors; for example, their personal philosophy and commitment to teaching PE, their previous professional experiences, and their personal lives and situations. Interestingly, evidence suggested that these teachers' 'learning trajectories' (Huberman, 1995) were not affected by age or experience. Indeed, these teachers had different personal stories and professional starting points. For example,

Hannah became marginalised from learning not of a personal choice but because of challenging family situations and a 'constant struggle for survival'. Margaret, on the other hand, chose to ignore PE-CPD because of personal beliefs of the unchallenging nature of teaching. A further cross-case analysis of these teachers' stories illustrates the argument.

As reported in section 4.1.9, at the time of the research, Hannah was struggling due to contextual constraints in a new post and, what she regarded as, a series of 'failures' to achieve improved PE facilities. Hannah also admitted that she felt a little depressed and lacked the motivation to learn because of a lack of meaningful support from the school leadership and the wider community. These factors shaped the way in which Hannah interpreted and experienced the limited PE facilities in her school and her feelings of neglect. Being a single mother, Hannah reported that family commitments have prevented her from spending time to learn with and from friends-colleagues and financial constraints restricted her participation in PE-CPD events. For Hannah, state-funded PE-CPD was the only possible avenue for learning; and since systematic provision was absent, Hannah's motivation to learn declined over the years significantly. In sharp contrast, Elisabeth acknowledged the fact that her personal life situations (e.g. her husband was running a very successful business) enabled her to fund extensive CPD participation overcoming the lack of state-funded PE-CPD opportunities. Given these different personal life experiences, it is not surprising that Hannah and Elisabeth demonstrated different degrees of commitment and 'resilience' in professional learning (Gu & Day, 2007).

Gu & Day (2007) defined 'resilience' as 'the ability of an individual to withstand or recover quickly from difficult conditions' (p. xviii). These teachers also reported being more or less 'ready', 'willing' or 'able' to 'engage profitably with learning' (Claxton & Carr, 2004) because of personal, situational and professional factors/ circumstances. Therefore, this study reinforces previous findings in the UK by Day and colleagues (2006; Sammons et al., 2007), who found that 'there is developing awareness of connections between teachers' private lives, the personal and biographical aspects of their careers and how

these intersect with and shape professional thoughts and actions' (Day et al., 2006, p. 7). This complex web of factors included: i. personal life experiences / events; ii. Schools (roles and responsibilities, classroom settings, leadership and colleagues); iii. Pupils (relationships and behaviour); iv) professional values; and v) policies. Links could be drawn here with Woods' (2001) grouping of factors that shape teachers' curriculum changes into three interrelated levels: structural (macro), organisational (meso) and personal (micro). The findings from the present study suggest that these complex factors also influence teachers' capacity to learn.

The 'personal' stories of two more teachers illustrate the power of personal experiences upon teachers' capacity to learn. As previously reported (sections 4.1.5 and 4.1.7), Peter and Elisabeth worked in the same school and had the same years of teaching experience. However, towards the end of their career, they demonstrated different degree of engagement with professional learning. Peter viewed the majority of his career with satisfaction. His career trajectory took an upward trend as a result of promotion to the general secretariat for sport in Athens. However, things changed dramatically for Peter about a year before the research visits, when he was 'sent back' to teach in a school with very poor PE facilities. As a result, it would appear that Peter's commitment to teaching (and professional learning) has declined dramatically. Elisabeth, on the other hand, always viewed herself as a schoolyard teacher who should learn all the time in order to be up-to-date with society and pupils' needs. In this context, Elisabeth viewed herself as both a teacher and a learner; and her transfer to state schools, with poor facilities, did not influence her desire to learn and develop.

These case study teachers seemed to have had different starting point in terms of the importance of learning about teaching in their professional lives and different levels of 'resilience' (i.e. ability to engage in sustained professional learning) to learning (Day et al., 2006; Gu & Day, 2007). This finding has important implications for PE-CPD. It is argued in this thesis that these complex and multidimensional factors must be taken into account when designing PE-CPD opportunities for teachers (Day et al., 2006; Eraut, 2004;

Hodkinson et al., 2008; 2007a; 2007b; Kelchtermans, 2004). Teachers need to feel a great deal of support in their schools- and need to experience CPD that respect their professional and personal identities and relates to their problems of practice.

5.2 What Do Greek PE Teachers and CPD Stakeholders Believe About the Nature and Quality of Existing PE-CPD Provision?

This section includes the issues discussed with the research participants in response to the second research question. As previously mentioned, the research participants varied in terms of professional responsibilities, years of teaching experience, personal dispositions towards learning and CPD background. The majority of the teachers involved in the study could describe at least one CPD experience that had a profound influence upon their practice. All research participants, however, identified fundamental flaws in the existing PE-CPD system. These shortcomings included issues around the quantity/availability of PE-CPD (5.2.1 Limited and haphazard PE-CPD provision) and questions about the quality of what was available. In particular, research participants felt that the available, state-funded PE-CPD opportunities were not only limited but also limiting, irrelevant and technocratic in nature (section 5.2.2), as well as 'transmission-orientated' failing to have any impact upon teachers' practices (section 5.2.3). Each of these themes will be discussed below.

5.2.1 Limited and haphazard PE-CPD provision

Evidence suggested that, at the time of the research, the prevailing assumption was that teachers would take charge of their own professional development, fund themselves and pursue PE-CPD in their own time (and volition). However, there seemed to be something of a paradox at the heart of the existing PE-CPD system: although teachers seemed to have the 'freedom' to determine both participation in professional development and choice of activity, there were very limited state-funded PE-CPD opportunities available.

Indeed, evidence showed that, at the time of the research, the Greek government appeared to have assumed limited responsibility for the professional development of PE teachers.

Findings from both the teacher case studies and the profile questionnaire illustrated that the majority of these teachers' careers included long periods during which they did not participate in any CPD specifically designed for school PE (PE-CPD). In terms of the case study teachers, Jon, Hannah, Elisabeth and Peter reported that it has been many years since they have participated in any formal PE-CPD and even more since they have engaged in anything that inspired them. Mary commented that 'the most important characteristic of current [state-funded] PE-CPD provision is that it is non-existent'. Clive and Peter spoke explicitly of being 'neglected'; and Margaret and Hannah appeared to have become increasingly cynical about structured PE-CPD opportunities and career-long learning. Similar to the teachers' points, all CPD stakeholders expressed concern that the quantity of existing provision is inadequate to engage all PE teachers in meaningful learning. The findings of the open-ended profile questionnaire echo some of the key messages conveyed by the case studies on this matter. In section 4.2, it was reported that 30% (sixteen teachers) of the responders could not recall having participated in any specialised PE-CPD programme since initial teacher training and the remaining thirty nine (70%) reported an average of 2 PE-CPD courses per teacher, including twenty PE teachers with more than 15 years of teaching experience!

This finding is, in itself, highly problematic given emerging policy requirements that teachers must engage in CPD opportunities in order to raise standards of achievement (OECD, 2007; 2005; Selwyn, Gorard & Furlong, 2006). As discussed in chapter 1, these arguments are based on the assumption that improving the quality of teachers and teaching is central to improving student learning outcomes (Cochran-Smith, 2005; Darling-Hammond, 2000; Gray & Bryce, 2006; Leu & Price-Rom, 2006; Rowe, 2003; Wenglinsky, 2002). In the European education context, teachers have been recognised as 'key players' in supporting the learning experiences of young people and preparing citizens

for a 'knowledge-driven economy' (European Commission - EC, 2001, p. 1). Day (2002) claimed that teachers are at the 'cutting edge of change' and 'the single most important asset in the achievement of the vision of a learning society' (p. 431). At the policy level, the European 'memorandum on lifelong learning' (EC, 2000) explains that the member states are responsible for ensuring that teachers and other professionals have adequate and sufficient support to continually enhance their knowledge, skills, and understanding. As a consequence, in many European countries (e.g. England, Wales, Austria, Switzerland, Germany and Sweden) there is a clear expectation (and structures in place) for all teachers to participate in regular professional development (Bolam & McMahon, 2004; Day & Sachs, 2004; OECD, 2005; Sugrue, 2004); and this is connected to appraisal, career progression and continuing registration as a teacher. Fifteen years ago, Day (1993) explained that:

CPD is no longer a privately pursued optional extra but a publicly implicit, accountable part of every teacher's regular working life (p. 87-88).

Researchers (e.g. Killion, 2002) found that teachers who receive rich and sustained professional development are more likely to engage in effective classroom practices associated with increased pupil achievement.

In the PE field in England, a National Continuing Professional Development programme for teachers was launched in 2003 with the aim to improve the quality of teaching and learning in PE in all schools in England (see section 2.1.6). Elmore (2002) argued that, in the context of a performance-based accountability system in education, government support is paramount in order to achieve challenging educational goals. However, he explained that there is an urgent need for mutual responsibility and rights to CPD provision:

For every increment of performance I [government] demand from you, I have an equal responsibility to provide you [teachers] with the capacity to meet that expectation. Likewise, for every investment you make in my skill and knowledge, I have a reciprocal responsibility to demonstrate some new increment in performance" (Elmore, 2002, p. 5).

The majority of the case study teachers in the present study demonstrated a desire to 'do their bit', to engage in formal CPD and learn but, as discussed in section 5.1.5, some of them also felt incapacitated to do so because of a practically non-existent PE-CPD system. Similar to concerns raised in the US (Ball & Cohen, 1999; Elmore, 1997) in the 1990s, these research participants criticised the random, ad-hoc and haphazard nature of teacher CPD provision and the apparent lack of a systematic approach to professional learning. For four teachers (Peter, Mary, Elisabeth and Philip) and two CPD stakeholders (Ruth and Mark), PE-CPD provision was based on intuition, individual endeavours and tutor availability rather than a strategic design or long-term vision for teachers, schools and pupils. Their comments reflected Ball & Cohen's (1999) concerns that, in such a CPD system, teachers were thought to need updating rather than opportunities for serious and sustained learning. In this framework, it has been acknowledged that CPD is only occasionally truly developmental (Ball & Cohen, 1999). Similarly, in the context of this study, a case study teacher (Elisabeth) made a clear distinction between the 'reality' in Greek PE-CPD, which merely 'informed' teachers and the 'ideal', which would genuinely and meaningfully educate teachers.

In Greece, the importance of systematic CPD has been stressed by the national teachers' union association, policy makers and academics (e.g. Μαυρογιώργος, 1996; Χατζηδμήμος & Ταπατόρη, 2003) for some time now; yet, it appears that the system's reaction has been dramatically slow. The CPD stakeholders in the present study argued that PE-CPD is limited because of poor funding and a perceived gap between policy and practice. Furthermore, all CPD stakeholders identified a lack of knowledge and capacity at the delivery level – that is, a lack of experienced and knowledgeable professional developers – as an important concern. However, quite problematically, evidence from the present study showed that limited structured PE-CPD opportunities had a detrimental impact upon some of the case study teachers' capacity to learn and to change their practice (see section 5.1.5); raising questions about the impact of the existing system upon pupil learning. It is, therefore, timely that the Greek government seizes the necessity for teachers to engage in professional learning by investing

substantially in teacher development and developing a national strategy with clear goals and expectations. According to Darling-Hammond (2006), learning is one of the most fundamental civil rights of all citizens and professionals and, in relation to the teaching profession, she argued that governments need to 'create an infrastructure for ongoing intensive professional development' in order to 'ensure that all teachers can get access to high quality training' in order to improve standards in schools (p. 19).

5.2.2 CPD Content: Irrelevant and Skills-Orientated (Technocratic)

In examining the content of these teachers' PE-CPD history, it became evident that very few courses were specifically designed to support teachers address their issues and concerns and, consequently, to support them teach in 'real' schools with real pupils. The research participants found the existing PE-CPD system to be: (i) irrelevant, as activities were not targeted appropriately based on a thorough analysis of teachers' diverse professional learning needs and the school reality; and (ii) skills-oriented / technocratic in nature, failing to capture the full complexity of teaching and learning in state schools and to make the connections with broader educational goals and expectations. These issues are discussed in turn.

i. Irrelevant PE-CPD content

The majority of the case study teachers argued that they have never been asked about what they wanted to learn. There was also a clearly held view that fundamental decisions about CPD content tended to be based on professional developers' perceptions about what teachers need to learn, rather than teachers' perceptions about the nature of valuable professional knowledge in PE. The CPD stakeholders (Patrick, Ruth, Matthew and Christine) and some of the case study teachers (Mary, Philip, Elisabeth) explicitly argued that this pre-determined CPD menu is rarely based on a thorough needs-identification process. This resulted in PE-CPD experiences that were not targeted appropriately and were irrelevant to PE teachers' diverse professional learning needs and real issues and concerns. Furthermore, both teachers (Margaret, Hannah, Jon, and Peter) and CPD

stakeholders (Patrick and Andrew) explained that professional developers presented information that was irrelevant to school realities, ignoring multiple contextual factors (i.e. facilities, resources, pupils, curriculum etc.) that influence teachers' work, failing to 'make the connections with teachers' practices' (Patrick). Peter stressed that there is an apparent inconsistency in between what is presented in CPD events and what is feasible in the school environment. This issue is further discussed in section 5.3.1.

ii. Skills-oriented and technocratic

The 'technocratic' nature of many of the available PE-CPD activities was also discussed by both the CPD stakeholders (Andrew, Matthew and Christine) and some teachers. Indeed, the majority of the case study teachers' accounts of practical PE-CPD experiences reflected a fairly conventional view of PE, largely consisting of skills to be delivered to teachers and, consequently, to pupils. Philip and Mary explicitly criticised that their PE-CPD experiences are dominated by a coaching or, what Lawson (1983) called, 'custodian' orientation to PE (cited in Curtner-Smith, 2007). In other words, they felt that the strongest emphasis in CPD is placed on the performance aspect of the subject; the education of the physical (Laker, 2001). In sharp contrast, however, there was some agreement amongst case study teachers that teaching PE is much more complex and multidimensional than teaching merely physical skills; and all case study teachers seemed to hold much broader expectations for themselves and their pupils than a performance-orientation would suggest. Jon, Elisabeth and Clive explicitly talked about educating pupils *through* the physical (Laker, 2001). Furthermore, Mary vividly illustrated some of the complexity of teaching PE 'in a very difficult school' a group of diverse pupils, the majority of whom had 'difficult times at home'. Mary was certain that, within what she perceived to be a constantly changing and unstable school environment, 'teachers need constant support'; importantly, though, a kind of support that is different than 'what an expert coach can teach us'.

Four case study teachers (Philip, Mary, Kathy and Peter) and 2 CPD stakeholders (Matthew and Ruth) also criticised that in the existing PE-CPD

experiences, fundamental issues around educational purposes and ends remain unchallenged. Philip felt that in PE-CPD, teachers learn how to teach skills without ever questioning why they teach such skills – for whose ends and for what overall purpose. In this scenario, and similar to an insight by Giroux (1981), teaching is reduced to the issue of what is technically possible rather than questioning values and educational ends. In the broad educational terrain, Hargreaves (1992) and more recently Darling-Hammond (2006), amongst other academics (e.g. Elliot, 2004), have drawn attention to the negative consequences of a CPD system that understands professional development as merely skill acquisition. Darling-Hammond (2006) claimed that when CPD does little to enhance teachers' understandings of the complex processes of learning or child development, then these teachers are less capable of identifying, catering for and supporting meaningful pupil learning. Furthermore, Hargreaves (1994; 1992) and more recently Elliot (2004) warned that if CPD adopts a strictly instrumental and uncritical view of teaching, they run the danger of disconnecting teachers' endeavours from fundamental questions about the ends of education. In the context of the present study, Philip felt that this sense of lack of direction creates teachers who are merely 'technicians', 'breaking stones without knowing why'.

Little (1993b) suggested that in the US context, the 'traditional training CPD model' is inadequate and inappropriate because it seeks to transfer a body of skills (that are disconnected from deep issues of educational purposes, curriculum and learning) to teachers who work under increased complexity. This seemed to be the case for the teachers in the present study as, similarly to Armour & Yelling's (2004) research, they pointed to a gap between what PE teachers wanted/needed to learn and what PE-CPD was available. Therefore, it is suggested that there is an urgent need to ground Greek PE-CPD provision in an in-depth understanding of PE teachers' and pupils' needs in the context of contemporary state schools in order to provide substantial and meaningful support to teachers.

5.2.3 Traditional, 'Transmission-Oriented' CPD Model

All case study teachers reported that their PE-CPD experiences to date had been dominated by a short, course-led model, usually taking place in training centres or, more rarely, in universities. Responses in the questionnaire confirmed this finding. As reported in section 4.2.1, two thirds of the listed PE-CPD activities were of short-duration. Some of the case study teachers were very critical (some explicitly, some implicitly) of the way in which they felt they were treated as merely passive in the PE-CPD learning process. Hannah and Jon felt that PE-CPD was a useful platform for 'experts' from outside schools or 'from above', with limited understanding of teachers' issues and concerns, to tell teachers what to do. Philip challenged 'passive' learning opportunities where teachers 'sit and listen' and rarely change their practices as a result. Clive, Philip, Peter and Mary argued that passive, technocratic, and transmission-oriented PE-CPD were problematic because they provided limited opportunities for teachers to think for themselves and to generate knowledge and ideas which would be grounded in and further developed in the context of their practices. These findings are not surprising. Useful links could be drawn here with the relevant literature to shed some lights on the issues raised by the research participants.

As reported in section 2.1.5, traditionally, CPD provision has been characterised by a narrow form of delivery: mainly 'off-site'; delivered 'en masse' to teachers; dominated by what is called 'one-shot' courses, workshops or conferences; and 'rushed' so all the important knowledge can be 'transmitted' in a limited period of time (Armour, 2006; Armour et al., 2009; Ball & Cohen, 1999; Rogers et al., 2006; WestEd, 2000; Wilson & Berne, 1999). It seems that the key message conveyed by the 'traditional' CPD model is that professional knowledge is a static, given commodity or product that can be quickly picked up and internalised by the delegate teachers (despite their diverse needs and experiences); and that professional practice can change 'automatically' as a result of CPD participation (Bredeson, 2003; Stein et al., 1999). However, the international research literature is almost unanimous in its findings that 'traditional', training models fail to engage

teachers in meaningful and sustained change (Ingvarson, 2005). Fullan (1991) stressed:

Nothing has promised so much and has been so frustratingly wasteful as the thousands of workshops and conferences that led to no significant change in practice when the teachers returned to their classrooms (p. 315).

It has been acknowledged that, taking place largely outside of the school setting, CPD courses go against emerging understandings of the complex process of learning as situated and embedded in specific contexts and situations (Armour, 2006; Dadds, 1997). Indeed, contemporary learning theories (discussed in sections 2.3.3, 2.3.4, and 2.3.5) challenge the assumption that teachers acquire, internalise, and re-apply bodies of knowledge in a passive and abstract way. This view was reinforced by the case study teachers' accounts of how they learn in section 5.1.2 earlier in this chapter. In the quote below, Elmore (2002) reinforced the situated nature of learning and underlined the fundamental problem with out-of-context CPD designs:

The problem with this design is that it provides almost no opportunity for teachers to engage in continuous and sustained learning about their practice in the setting in which they actually work, observing and being observed by their colleagues in their own classrooms and in the classrooms of other teachers in other schools confronting similar problems of practice (p. 29).

Over the last couple of decades, concerns have been voiced in the international literature about the 'traditional' CPD model in which teachers' role is to receive centrally packaged material in a passive manner (Dadds, 1997). In the PE field, Armour et al. (2009) explained that in this model: "important professional knowledge is located in the hands of the CPD providers or policy makers, and is 'delivered' to teachers, who are then required to adapt it (a bit) so they can 'deliver' to pupils" (p. 215). This model reflects what Cochran-Smith & Lytle (2001; 1999) defined as a 'knowledge-for-practice' CPD orientation.

A fundamental assumption of a 'knowledge-for-practice' CPD orientation is that professional knowledge is considered valid when generated by researchers outside the school and transmitted by professional developers to teachers in CPD events. Therefore, a clear separation between what Huberman (1993) called 'craft knowledge' (that is, the nature of knowledge derived from teaching) and scientific, systematic, or prescriptive knowledge (Kennedy, 2002) is encouraged. However, Sandholtz & Scriber (2006) criticised that professional knowledge that is produced 'out there' and 'up there' in forms and terms that teachers cannot engage becomes separated from the teachers' central concerns. Furthermore, Wilson & Berne's (1999) critique of outside 'experts' who often have limited knowledge of local conditions and who, consequently, present irrelevant and uninteresting pre-packaged information, mirrors these teachers' experiences. 80 years ago, Dewey (1958) raised similar concerns about the negative consequences of learning experiences that are 'irrelevant' to learners' current understandings and needs.

It could be argued, however, that even more problematically, a top-down, transmission-oriented approach to CPD reflects a bureaucratic-managerial approach to education, where teachers are viewed as 'technicians-implementers' or 'restricted professionals' (Hoyle, 1982) who need to receive new knowledge generated elsewhere in order to 'be developed' (Hargreaves & Fullan, 1992; Hargreaves, 1992; Livingston & Robertson, 2001). One CPD stakeholder, Matthew, linked the nature of the available, passive learning experiences to prevailing notions of teacher professionalism in Greece and, in essence, to low expectations of PE teachers in state schools.

Links can be drawn here with Furlong's (1992) notion of 'educational conservatism'. Furlong (1992) declared that, in the framework of educational conservatism, the task of teacher education (and CPD) is to 'develop professionals who are experts in their own subject area and possess the practical didactic skills necessary to *induct the next generation into established bodies of knowledge*' (p. 166, my emphasis) rather than build

learning capacity (Claxton, 2007) (see section 2.1.4). Furthermore, it has been argued that ‘delivery models are dangerous, for they assume that those who work closest to children should have their thinking about the nature of good practice arranged for them by those outside schools’ (Dadds, 1997, p. 32):

Somewhere along the line, many [teachers] have learnt to feel that others’ visions and experiences are much better than their own. They have learnt to seek the ‘expert’ outside but deny that there may be a potential ‘expert’ within. Somewhere, somehow, they have been taught to devalue their inner voice, their own experience, their own hard-earned insights about children and classrooms” (Dadds, 1997, p. 33).

The work of Dewey (1958) and his principle of the ‘continuing of experience’ have proved to be insightful in explaining the argument that ‘passive, transmission-oriented’ PE-CPD experiences can have negative long-term effects upon teachers’ learning capacity.

Dewey, just over 50 years ago, argued that the nature of human learning is characterised by a steady deepening of understanding as humans grow and interact with new objects and new environments. In Dewey’s view, the environment constantly expands, opening up new opportunities, which both extend and refine the content of the experiences themselves. Dewey (1958) stressed, however, that the nature and quality of current learning experiences influences how humans understand and learn in subsequent experiences. This was theorized by Dewey as the principle of *continuing of experience*. As he explained it:

Every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after (1958, p. 27).

However, Dewey also argued that not all experiences are genuinely or equally educative; indeed some experiences can restrict or ‘narrow the field’ (p. 26) of future experiences, and thus be detrimental to further growth:

It is not enough to insist upon the necessity of experience, nor even of activity in experience. Everything

depends upon the quality of the experience which is had'
(Dewey, 1958, p. 16).

Dewey argued, for example, that although a given experience may enhance a person's skills it might, at the same time, 'tend to land him in a groove or rut' (p. 26). In sharp contrast, Dewey (1958) argued that experiences that arouse curiosity and open up horizons create the conditions for further growth and development. Therefore, the key message from Dewey's work is that the nature and quality of current experiences are likely to have a profound influence on how humans learn in subsequent experiences; a forerunner, it could be argued, of the contemporary concept of building learning capacity (Claxton, 2007).

If Dewey's view is accepted, the key implication for CPD is that it needs to be organised in ways that *build or extend teachers' capacity to engage in ongoing/future learning*. Drawing upon the findings of the present study, it could be argued that PE-CPD activities that aim to enhance teachers' teaching skills, in an unreflective and transmission oriented way, may be useful in the short term (i.e. teachers acquire 'ready-to-use' ideas); yet these same experiences can have negative long-term effects on teachers' learning because they have been encouraging *teachers to rely on others' expertise rather than their own ability to generate ideas and knowledge*. This was evident in four case study teachers who reported limited changes in their practices because of limited external support.

5.3 What Are the Features of Effective PE-CPD According to These PE Teachers and CPD Stakeholders?

This section explores the most frequently discussed themes in response to the third research question. As discussed in the previous section (5.2), research participants challenged both the orientation (focus) and scope of the available professional development activities for PE teachers in Greece. They all had specific and practical ideas about how the professional development

opportunities can be more meaningful to teachers and their pupils. The majority of the research participants suggested that effective PE-CPD:

- (5.3.1) is based on a thorough needs identification process in order to address teachers' diverse learning needs;
- (5.3.2) is flexible in delivery;
- (5.3.3) offers practical learning experiences;
- (5.3.4) enables teachers to engage in active, inquiry-based professional learning;
- (5.3.5) facilitates and encourages teacher interactions and collaboration;
- (5.3.6) provides follow-up support and is sustained over time.

In other words, these research participants' responses reflected the view discussed in the literature review (section 2,1,3) that there are three important features or dimensions that determine the quality of CPD experiences: namely, the *content* of the experiences (e.g. is the content relevant to the teachers? Does it challenge them to progress?); the *processes* or strategies employed to support effective teacher learning (e.g. practical, active and collaborative learning); and the *context* in which teacher learning taking place, seeking for follow-up, sustained and meaningful support in various contexts. A discussion of these themes follows and this chapter concludes with a critical appraisal of the findings on effective PE-CPD.

5.3.1 Needs Analysis: Target PE-CPD Appropriately

'Relevance' of CPD content, which addressed individual teachers' needs, expectations and aspirations, was perceived to be a key feature of effective PE-CPD for the majority of the research participants. Echoing findings from the international literature (Armour & Yelling, 2004; 2003; Garet et al., 2001; Hustler et al., 2003; Loucks-Horsley et al., 2003; 1996; Rogers et al., 2006), relevant CPD for the majority of the case study teachers meant beginning with an understanding of teachers' needs and their work environments. Therefore, at the level of CPD planning, Clive and Philip argued that a systematic needs analysis would enable teachers to pursue CPD opportunities that are

meaningful to them; and Margaret stressed that primary and secondary PE teachers have different needs and CPD provision needs to acknowledge and address this critical distinction.

These research participants advocated to be consulted prior and during PE-CPD participation about what they need to learn in order to target PE-CPD appropriately. This view resonates with existing understandings that teachers, as professional, should be responsible for their own professional development, both in the design and choice of paths to follow (MacNeil, 2004). In the UK, the EPPI review (Cordingley et al., 2003; Cordingley & Temperley, 2004) pointed that opportunities for teachers to identify their own CPD focus were viewed positively because teachers could identify their own starting points, focus on issues which were important to them, and influence the pace and scope of the CPD activity in order to optimise their professional learning. In this way, 'CPD is flexible enough to ensure that it fits for purpose rather than a 'one size fits all' package of imposed change' (Cordingley et al., 2003, p. 12). Similarly, King (2001) and King & Newman (2001) found that the opportunity for teachers to influence the substance and process of their professional development contributed to substantial teacher learning. Meiers & Ingvarson (2005) commented that when teachers help design their own learning and professional development is focused on solving their problems, it more likely that teachers will use new insights in their practices.

Evidence from the present study, however, also showed that there are challenging issues to be addressed in terms of who is responsible for, and how to develop sophisticated approaches to, identifying teachers' professional development needs. It is argued in this thesis that targeting PE-CPD appropriately is a much more challenging process than simply consulting PE teachers in the form of distributing questionnaires. Evidence from this study showed that these teachers held different, and rather vague, understandings of what is valuable knowledge and what they needed to learn. For example, as discussed in section 5.2.3, some of the case study teachers criticised the technocratic nature of existing PE-CPD; yet there were not always able to clearly articulate what specific knowledge they needed in order to progress in

their learning. Some case study teachers (Margaret, Elisabeth, Jon and Hannah) sought for new subject knowledge but were unable to specify what this knowledge should entail or how it would take their understanding further.

These findings, therefore, raise questions about the extent to which PE teachers have the capacity to identify their learning needs in isolation, in response to a questionnaire being sent by CPD providers. Rather, it is suggested that needs analysis is a very complicated process that should be undertaken collaboratively by both PE teachers and CPD providers with the aim to build PE teachers' capacity for identifying, pursuing, and evaluating their professional learning needs. This findings echoes findings from the independent evaluation of the National PE-CPD programme in England (Armour & Makopoulou, 2007). One Local Delivery Agency (LDA) case study is particularly illustrative.

The overall aim of the innovative PE-CPD programme in this case study was to encourage schools and teachers to work together to improve the quality of teaching and learning. The PE-CPD design centred around developing 12 'Learning Communities' in the locality each one of which to be consisted by a number of secondary PE departments. It was reported that the newly formed professional learning communities were encouraged to identify collaboratively, albeit independently of the delivery team, a *focus of inquiry* for a project and to articulate clearly a CPD element to support project implementation. However, the LDA manager pointed out that in the early stages of the programme, most of the 'learning communities' had 'fallen into very much the same trap' in terms of the kind of support they felt they need. In short, PE teachers focused on specific activity areas (i.e. rugby, trampolining etc.), in 'traditional' CPD terms. This was in sharp contrast to the LDA's vision who aimed to develop a culture of ongoing collaborative professional learning that is embedded in teachers' everyday working lives and driven by clear outcomes for their pupils and schools. In other words, there appeared to be a gap between what professional developers aspired to put in place and PE teachers' perceived needs; perhaps an indication of the 'traditional' nature of PE-CPD provision in this area prior to the national programme. In that context,

the LDA set itself a new goal to work *with* the teachers *through* 'traditional' CPD forms to try to encourage them to engage collaboratively in critical thinking about pupil learning and CPD. It was felt that teachers need to be supported initially until they feel confident enough and have the knowledge and skills to make these judgements themselves.

This example illustrates the need for collaborative, capacity building interactions between teachers and professional developers in identifying and addressing professional learning needs. This view was shared by other researchers who reflected upon their experiences as professional developers (Stein et al., 1999) and it is a matter that needs careful attention in the context of PE-CPD provision in Greece in order to engage PE teachers in meaningful and relevant professional learning experiences.

5.3.2 Flexibility in Delivery and 'Personalised' PE-CPD

The majority of the case study teachers shared the belief that PE-CPD is effective (i.e. is likely to have a positive impact upon their practices) when it provides teachers with innovative, yet realistic knowledge and ideas that are readily applicable in the restricted boundaries of existing school contexts. For these teachers, this required flexibility in delivery; e.g. both the PE-CPD content and processes to be adapted in order to accommodate and address teachers' diverse needs and contextual realities. This, according to Craft (2000), requires a thorough needs analysis not only on the area of development (i.e. subject area, issue, topic etc.) but also on the kinds of development (i.e. raise awareness, importing knowledge, changing attitudes, transform practice etc.) which is based on an in-depth understanding of teachers' prior knowledge, skills and understandings.

In the English context, it has been recently acknowledged that just as there is an increased recognition for differentiation in the curriculum and teaching/evaluation strategies in order to better meet the needs of diverse pupils, teachers as learners also need a differentiated approach to their professional learning experiences in order to maximise the impact of CPD engagement

(GTC, 2007). In particular, it has been stated that 'further improvement in teaching quality requires a more 'personalised and tailored' approach to CPD' (GTC, 2007, p. 1). This view is reflected in these research participants' comments about the importance of PE-CPD opportunities that take into account teachers' diverse starting points and PE-CPD providers that tailor provision to address teachers' issues and concerns. Findings from the independent evaluation of the National PE-CPD provision in England (Armour & Makopoulou, 2007) showed that this requires CPD providers to establish good communication links with schools and teachers. Findings from the present study suggested that CPD providers need extensive additional training in a number of areas in order to address PE teachers' diverse needs. It also became evident that they need to have an in-depth understanding of PE teachers' realities in order to provide meaningful and substantial support.

5.3.3 'Practical' PE-CPD Experiences

As reported in section 4.2.2, almost half of the PE teachers completing the profile questionnaire pointed to the importance of practical / experiential PE-CPD opportunities. For all case study teachers, practical PE-CPD experiences enabled them to develop a deeper understanding of theoretical concepts and consider the practicalities of using new knowledge in their lessons. The case study teachers held slightly different interpretations of the type or form of 'practical' PE-CPD meaningful to them. Some teachers valued experiences where they participated as students in the learning process (Margaret). Other teachers felt that observing others teachers – 'experts' – teach a PE lesson with real pupils (e.g. model teaching) was valuable because they were understanding what is feasible to be implemented in the context of real conditions in schools - and what is not. A few teachers (Mary and Peter) asked for opportunities to think in practical terms, even when the CPD course is theoretical. Mary clarified that there has to be a balance between the amount of theory presented and opportunities for practical, experiential learning.

Findings from the international relevant literature have pointed consistently to the importance of providing teachers opportunities to experience in practice new knowledge (Armour & Yelling, 2004; Garet et al., 2001) in order to develop an in-depth understanding that will enable them to adapt and use the new knowledge into practice (Meiers & Ingarson, 2005). Two teachers (Margaret and Elisabeth) valued practical experiences that would offer 'tips and ideas' that can be readily implemented in practice. In other words, these teachers drew particular attention to professional development opportunities that focus on 'pragmatic' issues and support teachers learn new ways of teaching (instructional approaches) (Mundry & Loucks-Horsley, 1999). However, the majority of these teachers suggested that CPD providers need to maintain a balance between pragmatic (practical) and theoretical (philosophical) perspectives combining them in ways that enable meaningful teacher learning. In other words, evidence showed that the majority of these research participants valued learning opportunities where theory and practice were combined in order to enable in-depth understanding. Three case study teachers (Philip, Mary and Peter) understood effective practical PE-CPD activities as transcending the transmission of 'tips and ideas' as end in themselves; but, rather, incorporating meaningful discussions about the connections between educational purposes and 'realistic' teaching practices. This view is supported by the international literature.

Mundry & Loucks-Horsley (1999) argued that when a CPD programme is guided solely by practical issues, it ignores the links with educational purposes or learning theories and, in essence, lacks a vision for improvement. However, they also argued that the opposite extreme is equally problematic because an over reliance on philosophical and theoretical questions ignores the realities (and complexities) of teachers' lives failing to support them initiate substantial changes in their practices. Therefore, it is suggested that PE-CPD experiences must enable meaningful engagement with both theory and practice; and that CPD providers must understand practical CPD broadly, drawing upon a wide range of differing experiences in order to engage teachers in meaningful learning.

5.3.4 Opportunities for Active Learning

It also became apparent that the majority of the research participants claimed that PE-CPD is effective when teachers are actively involved in the learning process and do not passively receive knowledge and ideas. For Mary, PE-CPD is effective when it creates learning spaces for teachers to think for themselves. Clive suggested teachers to engage in curriculum development by drawing upon their own expertise and deep understandings of teaching and learning in schools. In addition, Kathy, Mary and Peter talked about effective PE-CPD opportunities that provide teachers with both the conceptual and practical tools to engage in ongoing critique of their own practice. Mary envisioned PE-CPD that cultivates teachers' ability to be critical of policy documents, emerging conceptions of teaching and learning, and their own practice; and Philip talked about PE-CPD opportunities that engage teachers in ongoing debates regarding - potentially contested? - educational ends to which the educational system and the teaching 'profession' aspires. The CPD stakeholders raised similar points.

Existing theorising on teacher learning (see section 2.3.3) reinforces the argument for opportunities for active engagement in the learning process – and this was also evident in the ways in which these teachers felt they learnt about teaching (research question 1, see section 5.1.2 in this chapter). On a theoretical level, Knowles (1996; 1973) has consistently claimed that adults have rich experiences upon which they can draw in order to make sense of new knowledge and make it relevant to their own lives. Paulo Freire (1970) stressed the importance of this type of autonomous learning as counter to the 'banking' practice of education which merely 'deposits' information into students' minds. Darling-Hammond (1998) drew links with John Dewey's (1929) 'knowledge production' approach which empowers teachers with in-depth understanding of complex situations rather than 'controls them with simplistic formulas or cookie-cutter routines' (p. 3).

Opportunities for active learning in teacher CPD has also been supported by the international relevant literature. Gray & Bryce (2006) argued that teacher

learning and change are more likely to occur when teachers are given opportunities to explore and reflect upon existing and emerging knowledge and practice. In the evaluation of the National PE-CPD Programme in England (Armour & Makopoulou, 2007), active learning was found to be a key factor in PE-CPD effectiveness. Teachers reported important learning outcomes when they worked at their own level of experiences and were encouraged to consider how to make a viable idea work in their schools.

However, it needs to be stressed that there are a number of constraints in seeking to support active professional learning. Tripp (2004) argued that for some teachers the shift from passive to active, independent learners is challenging. Mundry & Loucks-Horsley (1999) found that professional development initiatives that relied on teachers as curriculum developers and active constructors of knowledge failed because teachers had neither the time and resources nor skills and content knowledge to carry this out. In the National PE-CPD Programme, there was evidence that CPD providers were attempting to empower teachers to become 'thinking', 'knowledge creating' learners. However, there were also examples where, in practice, the PE-CPD activities required teachers to do little more than translate policy documents (Armour & Makopoulou, 2008). In the present study, findings suggested that not all PE teachers felt prepared adequately to take ownership of their professional development (see section 5.1.5) and this poses something of a challenge to professional developers. Furthermore, it became clear that more research is required in order to understand what these teachers mean by 'active' learning and how CPD providers can engage them in meaningful learning in CPD events.

5.3.5 Opportunities to Learn from Each Other

Given the value attached to social interactions as a significant – yet underexploited - source of learning (see section 5.1.3 earlier in this chapter), it is not surprising that these research participants argued that effective PE-CPD is that which enables teachers to learn from each other, to share existing knowledge, and to explore collectively the meaning and implications of new

knowledge presented in PE-CPD events. Some of these case study teachers suggested that PE teachers should co-construct, rather than merely share, knowledge and understandings. This suggestion is consistent with an understanding of 'learning as participation' in social practice (see section 2.3.4, literature review), rather than acquisition or transmission of discrete knowledge or skills, as advocated by 'traditional' theories of learning (e.g. behaviourism and cognitivism, see section 2.3.1). Such an understanding has significant implications in the ways in which PE-CPD opportunities are designed and assumes different roles and responsibilities of teachers in the process. .

There is significant conceptual and empirical support in the international literature on the importance of collaborative CPD opportunities. Drawing on teachers' self-report data, Garet et al. (2001) found that the relative success of CPD programmes depended on the extent to which teachers had opportunities to collaborate. More recently, Rogers et al. (2006) found that opportunities for collegial interactions during CPD 'offered additional learning experiences [to teachers] that they could not receive from instructor-led activities' (p. 520). The EPPI group in the UK reviewed systematically the literature to investigate the impact of collaborative CPD on teacher learning and pupil learning (e.g. Cordingley et al., 2003; EPPI, 2004), concluding that collaborative CPD processes were linked with positive outcomes for teachers in terms of (i) teachers' motivation to work together and take risks; (ii) their beliefs in their ability to make a difference (self-efficacy) to pupils' experiences; (iii) their perceived effectiveness in terms of learning outcomes for pupils; and (iv) their capacity to provide active and interactive learning experiences to their pupils, in line with curriculum expectations.

Evidence discussed in section 5.1.3, however, also revealed that only a few teachers felt they had the skills they needed in order to maximise the potential of professional interactions with other teachers. Furthermore, CPD stakeholders did not seem to be confident in enabling teachers working collaboratively together. These findings are consistent with the international literature. Recent studies that aimed at building teachers' capacity for

collaborative learning – by formalising informal interactions into CPD structures – faced numerous challenges to engage teachers in ‘meaningful’ or ‘learningful’ conversations. Reflecting on her role as a professional developer, Little (2002) reported that, despite her explicit efforts, critical conversations about teaching and learning were uncommon. In the PE field, recent efforts in Ireland to develop and sustain communities of practice with PE teachers have struggled to find ways to inspire deeper discussions amongst the teachers involved (O’Sullivan, 2007). Similarly, in a recent evaluation of the national PE-CPD programme in England, it was found that despite the fact that CPD providers understood professional learning as fundamentally social/ collaborative in nature, they needed further training in order to challenge teachers to engage in critically reflective dialogue and to learn effectively from it (Armour & Makopoulou, 2008). All these research projects drew attention to the importance of allocating sufficient time to teacher interactions in order to build the necessary trust amongst teachers in order to engage in more sustained and focused discussions. The issue of trust was raised by the case study teachers, bringing into question the short, one-shot, haphazard, and individualistic nature of their existing PE-CPD experiences.

This situation, indisputably, poses something of a challenge to CPD providers. The evidence from the present study suggests that both teachers and CPD providers need support and direction in order to engage in and enable meaningful collaborative learning.

5.3.6 Sustained Engagement in PE-CPD and Follow-up Support

A common element of effective PE-CPD, identified by these research participants echoing findings from the international literature, is the need for sustained support for teachers along two dimensions: first, providing sustained support to teachers during the challenging implementation phase – that is follow-up support (Deglau & O’Sullivan, 2006; Garet et al., 2001; Guskey, 1995; Ko et al., 2006); and second, providing multiple, varied and ongoing CPD opportunities to teachers (Elmore, 2002; Wilson & Berne, 1999).

Both teachers and CPD stakeholders acknowledged that teachers must construct their own understandings and try things out in the context of their real classrooms in order to learn and develop. This is consistent with the view of learning as construction (see section 5.1.2). Guskey (1995) explained that it is when professionals actually implement the new ideas or practices that they have the most specific problems and doubts, difficulties and uncertainties. It is consequently essential, in this respect, to acknowledge that the route from CPD to practice is not straightforward and simple. Teachers need support- a kind of support that will build on their existing knowledge and classroom experiences of implementing the new approach (Guskey, 1995). Ball (1996, in Wilson & Berne, 1999) also found that follow-up support is important in CPD:

“The most effective professional development model is thought to involve follow-up activities, usually in the form of long-term support, coaching in teachers’ classrooms, or ongoing interactions with colleagues” (p. 501-502).

Although the research participants in the present study did not demonstrate awareness of the range of CPD strategies available in the international literature (see section 2.1.3), they made the case that teachers need follow-up support and guidance in order to maximise learning. This finding also echoes earlier research by Guskey (2002), which found that the more effective strategy is to ask teachers to try out new practices and see the effects on their students, rather than trying to change attitudes first in the hope that this will lead to changes in practice. Other research projects found that programmes that invite teachers to experiment with their practice and consist of multiple meetings tend to be highly valued by the teachers and lead to substantial teacher change and development (Ingvarson et al., 2005). This was a point raised by some of the case study teachers.

Some of the research participants, echoing findings from the international literature, that effective PE-CPD is that which integrates multiple programmes in ways that the content and structure of different CPD activities are coherent and progressive (Guskey, 1995). A case study teacher Elisabeth, for example, talked about creating a chain of professional development activities based on a clear vision (and strategy) of what kind of teachers and future citizens the

educational system aspires to. Some of the research participants' views reflect Elmore's (2002) argument that, in a coherent CPD system:

...the activities should be continuous from one year to the next. As schools [and teachers] reach one set of objectives, they should move on to more ambitious ones and educators should demonstrate continuity and consistency in the improvement of their practice in specific domains from one year to the next (p. 8).

It is interesting to note that, although these research participants held clear views on what would make an effective PE-CPD experience, their comments reflect a rather narrow understanding of the complex process of professional development and a lack of awareness of the range of CPD strategies available in the international literature (and discussed in section 2.1.3). This finding suggests that PE-CPD providers need opportunities to access the international CPD research on effective / ineffective CPD and engage in meaningful training in order to support meaningful teacher learning.

Chapter 6: Conclusion

The present study emerged during a period where the dominant discourse in education in Europe was 'lifelong learning' (European Commission 2001; 2000); and governments around the world placed increasing emphasis on the quality and standard of teachers' and pupils' learning (Cambell, 2002; Reynolds & Teddlie, 2000). In Greece, however, research on CPD was at an embryonic stage of development and research on PE-CPD was practically non-existent. Therefore, there were fundamental questions to be asked about whether the existing CPD system in Greece was well equipped to keep pace with European developments. In particular, the aim of this study was to build upon recent PE-CPD research by addressing the following research questions:

- i. How do Greek PE teachers perceive they learn about teaching?
- ii. What do Greek PE teachers and CPD stakeholders believe about the nature and quality of existing PE-CPD provision?
- iii. What are the features of effective CPD and PE-CPD according to PE teachers and CPD stakeholders?

The first research question sought to explore the complex processes of teacher learning in order to generate insights into effective ways to support meaningful professional learning in CPD situations. The second research question sought to 'map the terrain' (Borko, 2004) of existing PE-CPD provision and provide an in-depth understanding of the fundamental structures and assumptions that underpin the existing system in order to inform future provision. The third research question explored the research participants' views and perspectives on how PE-CPD can be improved. In order to answer these questions, an extensive literature review was conducted and this focused on the international CPD and PE-CPD literature, the existing CPD policies and structures in Greece, and contemporary theories of learning in order to shed some light on the complex process of teacher learning.

6.1 An Overview of the Research Process

The first part of the literature review, section 2.1, provided an overview of international professional development research in education and physical education. It was argued that the notion of CPD has taken different meanings in different points in time; and has been expanded recently to incorporate all forms of learning in both formal and non-formal situations (Craft, 2000; Evans, 2002; Guskey, 2002). It was also acknowledged that the terms 'teacher learning' and CPD have become prominent in the discourse of education in recent years. As a consequence, as reported in section 2.1.3, a plethora of research in the UK, US elsewhere has sought to identify 'principles' for effective/ineffective CPD, all sharing the belief that 'one shot' professional development activities undertaken away from the classroom, without specific follow-up activities, are unlikely to have lasting impact upon teachers' practice (Day, 1999a; Connelly & James, 1998). In other words, it is widely accepted that relying on traditional patterns of learning is unlikely to have an impact upon teachers' and pupils' learning. On the contrary, CPD is more likely to be effective when it is active and practical, on-going, reflective, collaborative, planned, and focused upon the needs of specific teachers and pupils (Day, 1999a; 1999b; Harland & Kinder, 1997; Spear et al., 2000). It was also stressed that current demands for ongoing, inquiry-oriented, active and collaborative professional learning opportunities are primarily driven by the long term vision of western governments about the kind of teachers, schools and citizens they want to create for the knowledge-driven 21st century society. In relation to the PE-CPD literature, it was found that over the last decade, there has been an increase in published research evidence available on the professional development experiences of PE teachers (PE-CPD) (Armour & Yelling, 2004).

Section 2.2 of the literature review provided information on the broad educational and CPD contexts in Greece in order to provide important contextual information for the views and experiences of the research participants. Some of the challenges teachers face in entering the profession of teaching were discussed and fundamental issues about the lack of adequate PE facilities were raised. Furthermore, an analysis of existing CPD

policy documents revealed that, despite developments in the structure and form of CPD provision over the last two decades, CPD was viewed solely as a form of periodic staff development, whereby teachers were brought together to receive the latest information or knowledge (Cochran-Smith & Lytle, 2001). Emerging, 'reform' (Garet et al., 2001) types of CPD were not offered. It was also argued that, at the time of the research, there was increased pressure for more and better teacher professional development by the national teachers union, leading academics and the public (newspapers). However, CPD and PE-CPD provision remained largely unchanged despite the existence of a strong policy framework outlining the importance and rationale of systematic CPD provision; and the development of the Institute of In-service Education for Teachers (O.EP.EK).

In section 2.3, an overview of theoretical perspectives on learning was provided in order to provide a strong theoretical basis for exploring the research participants' CPD experiences and for understanding their reflections on the complex process of professional learning. Particular attention was placed on constructivist and socio-cultural (situated) approaches to learning as it has been argued that they provide a powerful framework for understanding and exploring teacher learning. In short, learning from a constructivist perspective is an active, ongoing process where learners reflect upon their current and past knowledge to generate new ideas and concepts (Doolittle & Camp, 2003; Harris, 2000; Imants, 2002; Newmann, 1994; Windschitl, 2002). Situated learning theory accepts the constructed nature of knowledge and further suggests that learning is located in the 'existential situation' in which teachers/ learners live and work and is rooted in their embodied being (Van Manen, 1995, p. 45). Both theoretical perspectives have significant implications for PE-CPD provision.

Chapter 3 focused on the research methodology. The research adopted an interpretive stance and qualitative methods. The research design was based on an argument proposed by Borko (2004): that an understanding of the professional development and teacher learning processes must be based on a thorough analysis of all elements of a professional development system,

namely the professional development programmes or system; the teachers, who are learners in the system; the tutor/ facilitator/ professional developers who lead or direct teachers' CPD experiences; and the context in which the professional development occurs (p. 4). As a consequence, the study was conducted in three overlapping phases, including individual case studies with 9 PE teachers from primary and secondary schools; interviews with 6 CPD stakeholders with a range of responsibilities; and the construction and dissemination of an open-ended profile questionnaire to a wide, albeit not representative, number of PE teachers in the same borough in Athens in order to explore some of the emerging issues from the case studies.

The data were analysed using a predominantly constructivist approach to grounded theory (Charmaz, 2006; 2005; 2000). Codes were allocated in the data and, at the first stage of analysis (individual case analysis), these codes were categorised under the three main research questions. Findings from these data sources were reported in chapter 4. In the next phase of the analysis process, that is cross-case analysis and discussion, key points raised by the research participants were formed together in themes, and links were drawn to the literature in order to explain these findings. The outcome of this analytical process was reported in chapter 5.

6.2 Discussion of Key Findings

In chapter 4, the findings from all three phases of the data gathering process were reported. One of the key findings in the present study was that the majority of the research participants expressed concern that the quantity of existing PE-CPD provision was limited and, consequently, failed to engage all PE teachers in meaningful, sustained, and progressive learning. Furthermore, there was widespread agreement that 'traditional', one-shot, 'top-down', haphazard, and transmission-oriented courses dominated provision. Perhaps unsurprisingly, it was argued that this type of PE-CPD failed to meet teachers' needs and to engage them in ongoing and sustained professional learning.

Another important point raised by both case study teachers and CPD stakeholders was the perceived lack of a needs identification process that

could target CPD appropriately. In that framework, case study teachers reported lack of challenge and relevance in PE-CPD participation. There were also concerns that PE-CPD provision was not underpinned by a long term vision of learning and, therefore, PE-CPD experiences were haphazard and non-systematic. Furthermore, all CPD stakeholders and some case study teachers identified a lack of knowledge and capacity at the delivery level; i.e. a lack of experienced and knowledgeable professional developers, as an important concern.

All case study teachers, however, valued external expertise that could offer them fresh ideas. Case study teachers explained that such knowledge 'acquired' or 'generated' in specific contexts had to be further negotiated in and adapted to local contexts. In other words, some of these teachers seemed to believe that in order to learn something new (i.e. skill, concept, theory, teaching practice etc.), they had to interpret, negotiate, use, reflect upon and further develop this body of knowledge in practice. There are links here to the international literature on effective CPD and the theoretical perspectives of constructivism and situated learning. This understanding of learning as ongoing and multidimensional was in sharp contrast to teachers existing PE-CPD experiences that viewed them as passive in the learning process and did not provide opportunities for teachers to experiment with new knowledge.

Teachers also valued sharing with colleagues-friends and, under specific conditions, they found this valuable. However, evidence also suggested that developing and sustaining meaningful teacher collaboration is a challenging endeavour and structures within which collaboration could occur were neither established in schools nor typically built into formal professional development programmes. Moreover, case study teachers were not always challenged in their learning by other teachers; and few had the level of understanding required to make the most of the learning experience. This finding illustrated that there is a need to focus on building teachers' capacity for autonomy, effective collaboration with other teachers, and ownership of the learning process.

An analysis of the evidence also suggested that, over time, there were a number of impediments or barriers to professional learning. All case study teachers pointed to the limited external support or lack of meaningful structured opportunities to learn something new and/ or challenge existing practice; and identified school structures (i.e. inadequate PE facilities) and cultures (i.e. teacher individual and isolation) that inhibited professional learning. In the absence of systematic, structured support, some teachers reported that they had struggled significantly to continue to learn over the years in ways that would foster fundamental or meaningful changes in the core dimensions of their practice. Some of the case study teachers' comments suggested that they relied on others to lead their professional learning rather than initiating changes in their own practice. In other words, their professional growth appeared to be restricted at many levels and it was difficult to see how their experiences facilitated learning progression in any of the senses defined by the learning theories outlined earlier in this thesis. With few exceptions, the way in which PE-CPD has been structured throughout their careers meant that these teachers felt effectively 'deskilled' in professional learning. In this situation, transformative learning that shifts teachers and pupils to new understandings seems unlikely. A decade ago, Ward & O'Sullivan (1998) made a similar point; that is, professional isolation can contribute to a form of pedagogical reductionism.

Other teachers demonstrated a higher degree of 'resilience' (Gu & Day, 2007) in professional learning for a number of reasons: a school ethos that valued PE and was open and collaborative; ability to self-fund extensive CPD participation - and, thus engage with new ideas and concepts; and family commitments that were flexible. Therefore, it was argued that a complex web of contextual factors (i.e. school culture, expectations for pupil learning), professional factors (i.e. beliefs about teaching, PE and sport, responsibilities in schools or elsewhere etc.), and personal factors (i.e. beliefs, values, diverse personal life experiences, family commitments etc.) that need to be taken into account in designing effective CPD experiences for teachers (Day et al., 2006; Eraut, 2004; Hodkinson et al., 2007; Kelchtermans, 2004).

Furthermore, all teachers emphasised that they could not learn from the challenge of the job alone; but rather stressed the importance of engaging in ongoing CPD in order to bring fresh insights into practice.

In the light of these issues, it is perhaps unsurprising that the research participants suggested that effective PE-CPD is that which:

- is based on a thorough needs identification process affording, as a result, innovative, challenging, relevant and applicable knowledge or ideas that can enhance, renew or 'transform' teachers' thinking and practice;
- provides opportunities for practical, active and interactive professional learning; and
- is systematic, ongoing, and coherent and provides follow-up meetings and support.

Although the present study was not designed to explore the relative effectiveness of different types of CPD, the research participants' responses about effective CPD echoed findings from the international literature. These themes reflect the view that there are three important features or dimensions that determine the quality of CPD experiences: namely, the content of the experiences (i.e. is the content relevant to the teachers? Does it challenge them to progress?); the processes or strategies employed in various contexts to support effective teacher learning; and, the context in which it takes place (Sparks, 2002). It is important to note that whilst the CPD providers provided useful local insights in this research, they did not seem to be aware of the wide range of available CPD literature and the range and diverse ways of engaging teachers in meaningful learning.

The present study has provided evidence of the complexity behind some of the existing CPD findings and further reinforced the argument that there are no easy or simple solutions to the challenging issue of designing effective professional development for all teachers. It is argued in this thesis that if PE teachers are expected to grow and develop as PE professionals throughout

their careers, it is important that they remain engaged in professional learning. As reported elsewhere (Armour et al., 2008), data from the present study pointed to a PE-CPD system that failed to take cognisance of the sheer complexity of the learning concept, and thus failed to support teachers to make progress in their learning in a number of areas; for example: across career phases, across the theory/practice divide, from passive to active learners, and in extended learning within specific areas of interest.

The learning theories outlined in section 2.3 pointed to the potential value of professional learning that is active, situated, transformative, continuing/continuous, capacity-building, reflective, innovative, ever-evolving and that results in teachers becoming autonomous learners. Furthermore, from Dewey's perspective on learning, it could be argued that where teachers engage in impoverished learning experiences over a period of time (for example through a career) they are likely to become effectively deskilled in professional learning (Armour et al., 2008). Certainly there is some support for this argument in the data from the present study. Moreover, the research provides one explanation for the findings of O'Sullivan (2007) and Keay (2006) that even when teachers are provided with opportunities and frameworks for developing productive learning communities, they find it difficult to maximise the learning from them or to sustain them in the ways envisaged by professional developers.

6.3 Recommendations for Future PE-CPD Provision in Greece

Darling-Hammond (2006) argues that the opportunity to engage in sustained and powerful learning is a fundamental civil right for all citizens and professionals. The evidence in the present study suggested that such an opportunity is denied to these Greek physical education teachers. The findings illustrated powerfully the need to engage all teachers in systematic, meaningful, and personalised PE-CPD opportunities in order to sustain their commitment towards teaching PE and to develop their capacity for ongoing and progressive professional learning - despite their professional, contextual or personal circumstances. Therefore, it seems clear from the present study that those charged with CPD provision need to ground CPD design and

implementation in a thorough analysis of schools' and teachers' needs and engage in extensive training in a number of areas in order to meet teachers' diverse professional learning needs. However, the findings also illustrated that PE-CPD provision needs a radical transformation in many other dimensions, in particular in the ways in which teachers are viewed as learners in the process.

It was also evident, however, that promoting new CPD structures that understand teachers, for example, as lifelong, independent and collaborative learners is a challenging endeavour; and one that requires a dramatic cultural and structural shift. Furthermore, it is suggested that supporting change at the individual level alone, while neglecting inhibiting organisational structures, can be problematic (Borko et al., 2002; 1997). It is widely acknowledged that to foster and sustain meaningful learning for pupils, professional development initiatives must support change at both individual and school levels. This seems to be a particularly important concern in the Greek context. Furthermore, it is argued in this thesis that effective PE-CPD provision should be based upon and informed by rigorous, systematic research, which analyses, decodes and explains the contextual reality of Greek schools before attempting to impose supposedly effective CPD structures that have been successful in different contexts and situations. Rigorous evaluation of existing PE-CPD programmes is also vital in order to inform future provision. In particular, the following recommendations / implications are suggested.

Recommendations for CPD policy and policy makers:

- i. CPD policy makers must focus on building teachers' capacity for ongoing, sustained professional learning (Ingvarson, 2003);
- ii. This must be supported through appropriate legislation and funding - CPD policies must ensure that teachers have the support they need to become lifelong learners;
- iii. At times of increasing expectations for schools and teachers, it has never been more important policy makers to gather members of the teaching community / profession to consider ways in which lifelong learning (for both teachers and pupils) can become a reality;

- iv. There is also an urgent need to base CPD policies, design and implementation on empirical evidence gathered in Greece in order to provide teachers opportunities for ongoing, coherent, inquiry-based, active, practical and collaborative professional learning experiences;
- v. There is also an urgent need to build strong links between CPD policy and CPD implementation in order to fill in the perennial gap currently in place. This can be achieved by developing effective quality assurance mechanisms and evaluation procedures;
- vi. Policy makers and CPD providers also need to acknowledge that effective CPD is dependent to a large extent upon financial support of teachers and schools; school cultures that nurture / enable or inhibit professional learning; and teachers' personal factors and prior experiences. Therefore, policy makers should target both individual teachers and schools in order to improve pupil learning.

Recommendations for CPD practice

- i. PE-CPD implementation needs a radical transformation in many dimensions, including the ways in which PE teachers are viewed as learners in the process and interact with other teachers and CPD providers;
- ii. PE-CPD provision should be grounded in a thorough understanding of the complex and multidimensional process of professional learning and change;
- iii. It seems clear from the present study that those charged with PE-CPD provision need to ground CPD design in a thorough analysis of schools' and teachers' needs and plan for personalised and tailored professional learning experiences;
- iv. Furthermore, PE-CPD providers need extensive additional training in a number of areas in order to address PE teachers' diverse needs and expectations and provide meaningful support for teaching PE in state schools;
- v. PE-CPD providers must have a realistic and sophisticated understanding of the complexities of teacher change and the

- multiple factors that affect effective teacher learning; and plan for meaningful, follow-up support when required;
- vi. PE-CPD providers need opportunities to access the international CPD research literature on effective and ineffective CPD, and relevant theories of learning, so that plan for meaningful learning experiences for teachers;
 - vii. Evidence also stressed the need for those responsible for PE-CPD to keep abreast to recent developments and conduct research in PE in order to provide innovative ways of teaching and learning;
 - viii. CPD providers must establish effective communication links with schools and individual teachers in order to address these diverse needs;
 - ix. In order to make major changes to the ways in which teachers learn, it seems clear from this research that those charged with CPD need, as Stein et al. (1999) explained, something more akin to a transformation in ways in which they understand and facilitate effective teacher learning;
 - x. Given teachers' increasing and challenging professional learning needs in challenging contexts, those responsible for PE-CPD should consider the possibility of creating a pool of knowledgeable, enthusiastic PE teachers- learners who could design and deliver PE-CPD opportunities and who could inspire other colleagues in schools. In this way, they would build the infrastructure of good, high quality professional developers;
 - xi. CPD providers must find effective ways of evaluating provision in order to inform future practice and to contribute towards developing an empirical knowledge base.

Recommendations for research

- i. It is timely to design CPD research that seeks to explore the links between teacher learning and pupil learning;
- ii. Researchers should also explore various ways to 'assess' evidence of pupil achievement;

- iii. A substantial body of knowledge is also required in what teachers learn in different (e.g. traditional vs. reform) CPD opportunities and how these impact upon their practice and pupil learning.

The emerging innovative conceptual framework of effective CPD sets new challenges and new types of questions for educational researchers. For instance, to paraphrase Dewey's (1958) examples, the notion of professional learning communities has been emphasized as providing sustained and progressive learning opportunities to teachers. However, the notion of professional learning communities is not self-explanatory and researchers must seek both conceptually and empirically to explore its meaning and practical application (i.e. what does this concept mean, what are its characteristics, what are the conditions under which it can be realized, and what does the notion of progression in teacher learning entail?). In a similar way, it is not enough to say that collaborative professional learning is more effective than individual learning. Such arguments need to be based on research-empirical evidence and relevant theoretical approaches.

6.4 Limitations

The present study was qualitative in nature in order to explore the three main research questions. As discussed in section 3.3, the decision to employ qualitative methodology was driven by the aim of the study, which was exploring the range, diversity and complexity of the research participants' CPD experiences. However, qualitative methodologies have been strongly criticised for lacking generalisability. Therefore, although this study was designed with the aim of developing in-depth understandings of the phenomenon under investigation, findings cannot be generalised in the traditional, positivist way. It is acknowledged that targeting a 'representative' sample of PE teachers and employing a larger national survey would have offered statistically generalisable conclusions. On the other hand, however, some of the depth and richness of the findings would have been compromised; and it is these features that were the key aim of the research. Essentially, general information on PE-CPD was already available given that

so little provision exists; what was required was evidence of how that 'system' impacted upon different teachers and their learning.

Qualitative research has been also criticised for lacking validity and objectivity. Many of the procedures followed in the present study did not meet the traditional standards of 'objective' research; indeed, the researcher did not claim objectivity and independence. However, it was clearly explained that a number of strategies were adapted to ensure that the study was rigorous, trustworthy, credible and transferable. These strategies include: member checking; thick and rich descriptions in order to ensure the researchers' interpretations corresponded to the research participants' views and experiences. Furthermore, it has also been suggested that case-to-case transferability can be achieved when researchers provide sufficient contextual information (Schwandt, 2001); and this has been discussed in section 3.5.4 in the context of case study research. Fourth, the methods employed were identified, justified and explained with illustrative evidence from the data analysis process. Finally, research reflexivity has been adopted in order to acknowledge the influence of a number of factors upon the research process (i.e. data collection or analysis).

Another limitation of the study was data collection relied solely on teachers' interviews (and self-reports) and failed to capture the full complexity of the teaching and learning process. As discussed in sections 2.3.4 and 2.3.5 in the literature review, one of the fundamental assumptions of situative perspectives is that learning occurs in many situations and multiple contexts; and learners engage in the process of recontextualisation of knowledge in order to develop understandings and be effective in these different contexts. It follows from that that in order to understand teacher learning, researchers must study it within and across these multiple contexts, over time, and explore the nature of participation in different contexts. Influenced by a situated understanding of learning, initially the intention was to spend some time in the schools, to observe PE lessons, witness how teachers interact with others and the wider social environment and how they learn. In addition, lesson observations were perceived as a very important element of the research,

during which teachers' embedded knowledge could be observed tracing back how, where, when and why they learnt. There was also an intention to observe teachers in CPD events and try to trace how they developed their understandings and practices over time, across different contexts. However, the majority of the teachers felt that there was nothing important or worthwhile to be observed in their schools. Furthermore, there was not much CPD going on between March 2005 and November 2006, at the time of the research. Only one teacher, Mary, participated in one PE-CPD but the timing wasn't good for the researcher. Therefore, from a situated perspective, many learning opportunities were missed.

It should also be acknowledged that there were occasions when the case study teachers could not articulate clearly the complex processes of professional learning. This has been called 'tacit' knowledge in professional practice (Craig, 2006; Kennedy, 2002; Sternberg & Horvath, 1999). The design of the study, based solely upon follow-up interviews with these teachers undertaken some months apart and without any kind of observation (Fishman et al., 2003; Steadman, 2002) did not permit access to this tacit dimension and left many of the teachers' responses unexplored. Therefore, it could be argued that the present study could have benefited from an element of workplace observation as suggested by researchers exploring workplace learning (Billett, 2002; Unwin et al., 2005). However, as explained in section 3.4, it was difficult to arrange lesson observations with the majority of the case study teachers and this method was abandoned in order to secure the trust and cooperation of the teachers in the research as presented.

It is also important to acknowledge that these research participants volunteered to participate in the study. Having access to PE teachers with wider range of experiences and CPD profiles could have added more depth in the study. This study also failed to make the links with student learning. How do these teachers' practices – that remain unchallenged for years - impact upon pupil learning? How do these teachers' feelings of neglect influence the ways in which they support pupil learning? The third research question, what are the features of effective CPD, was based on the criteria of whether these

teachers felt they have learnt something new and/ or changed their practice as a result of CPD participation; rather than on evidence of pupil learning, and this is problematic.

6.5 Final Thoughts

There have been increased calls from around the world for more and better PE-CPD research. This study builds upon previous research providing a better understanding of the Greek system in the context of PE-CPD provision. This study also attempted to contribute to the international literature to building a shared understanding of how, what, why and where teachers learn. Evidence showed that the factors that influence teachers' capacity for professional learning are multiple and complex; enhancing existing understanding that effective engagement in professional learning is not only a matter of effective delivery, but also dependent upon a complex web of personal, professional and contextual/ cultural/ and policy factors. In other words, this study showed that learning is relational and embodied (Hodkinson, 2008). This study also shed some light on the work and lives of Greek PE teachers which has been neglected in previous research and prompted the need for more research on the organisational structures of schools and the ways in which they support or do not support professional learning. Evidence also showed the implications of a CPD system that failed to take into account the sheer complexity of professional learning that is seen as situated, active, and embedded in teachers' practices. In essence, findings underlined the complexity behind some of the existing finding on CPD effectiveness and further reinforced the argument that there are no easy or simple solutions to the challenging issue of designing effective PE-CPD. To conclude, this study raised fundamental questions that need to be further explored in order to improve the nature and quality of PE-CPD provision in Greece. This study is indeed the first small step on a journey of a thousand miles.

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List of Appendices

A. The Induction Programme for Teachers in Greece

B. Interview Agendas for case study PE teachers

C. Open-Ended Profile Questionnaire

D. Formal Letter

E. A Sample of Conference Presentations

Appendix A – The Induction Programme for Teachers in Greece

The sixteen Regional Training Centers all over Greece undertake the responsibility to deliver locally the induction-training programme designed, as described above, by central government. In particular, during their first year in post, new teachers follow a systematic induction programme while engaging in full-time teaching. The programme, which includes one hundred total contact hours, is implemented in three phases, as recommended by the MERA, and can be characterized as out-of-school professional training. Individual novice teachers from many schools within the same district attend “workshops” at a scheduled time- often after school - taught by leaders with special expertise (usually school advisors or academics). Some developmental activities are common for all teachers, while the remainder of activities vary based on grade level and subject. Those teachers with more than one year of previous teaching experience in state or private schools are obliged to attend only the first phase.

The **first phase**, sixty hours duration taking place in October, is characterised by a theoretical orientation towards studies. The dominant training technique is formal lectures. Designed to strengthen teachers’ content knowledge, introduce them to new instructional approaches, and explore an array of pedagogical and psychological theories, this phase also includes a variety of thematic groups, including organizational and administrative aspects of education; pedagogical issues; the methodology of teaching per subject; issues of evaluation and intercultural education.

The **second phase** has a thirty-hour duration and it takes place from January to March. The subject of the second phase is the methodology of teaching in the classroom (show-case methods by experienced teachers or school advisors- *model teaching/ demonstration*) and the solution of problems in the practice of teaching (Psycharis, 2002). The observation of someone else (an expert teacher/ school advisor) teaching is usually designed to give the observer a vicarious experience of a particular teaching approach. This experience is enhanced with flexible discussions and planning after the end of the event/observation, wherein novice teachers, according to the official documents, have the opportunity to be actively engaged in the learning process. This move towards more practical oriented training has been generated in an attempt to bridge the gap between theory and practice.

The duration of the **third phase** is ten hours and takes place in March. The object of this phase is the study of successful and unsuccessful practices and interventions in the classroom (presentation of problems concerning the managing of education, the problems related/connected to the pedagogical character, issues of evaluation, intracultural problems) (Psycharis, 2002). The goal of this phase is to sum up and discuss all the crucial issues generated during the previous two phases, through the active participation of the new teachers (O.ΕΠ.ΕΚ, 2003). After the end of each phase, trainee teachers

complete the corresponding questionnaire for the evaluation of the programme, designed by the Pedagogical Institute.

Appendix B – Interview Agendas for case study PE teachers

Interview 1

The purpose of the first interview with the case study teachers will be:
Get to know the individual teachers further, and especially a little more about their personal philosophies for teaching PE- follow up the teachers' responses on the questionnaire- their views regarding PE provision in their schools- questions 1, 2, 3

Discover the pragmatics of CPD provision and entitlement in their schools

Follow up the teachers' responses on the questionnaire. In particular,

Explore more their responses on what activities constitute CPD, effective/ineffective CPD

Explore the nature of learning that may occur when teachers participate in CPD

Their views regarding the most important thing pupils learn from PE at their school (question 11)

What are their learning needs (question 9). Explore what, how, and why they are planning to learn.

Their advice to government in relation to CPD for PE teachers

Learn more about the teachers' motives/barriers to participate in a CPD activity

Key questions and prompts

Personal philosophies of teaching PE

- a. What is the most challenging aspect of your job as a teacher?
 - b. You said that high quality PE is..... How do you try to reach and offer high quality PE?
 - c. You said that an effective PE teacher is.....What are the factors that affect teachers' work and effectiveness?
 - d. You said that an ineffective PE teacher is..... Why do you believe that?
- Explore CPD provision- policy*

- a. I saw in the questionnaire that you attended..... Who decides what CPD is available to who?
- b. Can you identify in your list activities that you HAD to attend?
Do you know why these courses were compulsory?
- c. Can you identify in your list activities that you attended from your own initiative?
- i. Why did you want to attend them?
- d. How many activities can you pursue every year?
- e. How do you find out about CPD courses? (access)
- f. What happens when you want to pursue a CPD activity?
- g. What type of things does your school encourage you to pursue as CPD?

Revisit the Questionnaire- 'effective/ineffective CPD'- Learning that may occur in CPD (some first thoughts for the impact on practice-student learning)

- a. You write in the questionnaire that effective CPD is..... Why do you believe that? What criteria do you use do you use to determine the success/effectiveness of CPD?
- b. You identified this course to be particularly effective. Can you give me more details please?
 - i. Why did you attend it? What was the motive?
What was the content of this course?
What was the purpose of the course? Was the purpose achieved? How do you know?
Can you further explain why you found it particular effective? What criteria do you use to determine the success/effectiveness of this CPD?
Can you make a list with the things you believed you learned by attending this course?
Have you incorporated anything from the activity into your practice? Can you say what in particular? How did you incorporated it?
Do you feel your pupils benefited in any way? How do you know that?
How did you view yourself as a learner in this activity?
- c. You write in the questionnaire that ineffective CPD is..... Why do you believe that? What criteria do you use do you use to determine the 'failure/ineffectiveness' of CPD?
- d. You identified this course to be particularly ineffective. Can you give me more details? Can you further explain why?
- e. As an overall, what do you believe you learn by attending CPD courses?

4. Identify CPD targets- Motivation/barriers to CPD

- a. What CPD activities would you really love to pursue this year? What would you like to learn? (+ questionnaire)
- b. Why do you want to do these activities? (each one of these)
- c. What do you hope to gain/learn from them?
- d. You write that the most effective way to learn this is..... Why do you believe that?
- e. Are you going to be able to follow a CPD course focused on these activities? When and how? If not, why not? Any other activity?
- f. What are the barriers to pursuing CPD? Finance, time etc
- g. Are there any activities that you think you are going to have to do?
- h. Why is it seen as critical for you to do these, and who decides you have to do them?

5. Advice to the government....

- a. You suggest that the government should seek to..... can you tell me more about why you think that?
- b. Why do you believe it is important?

6. Preparation for next interview- Link CPD with student learning

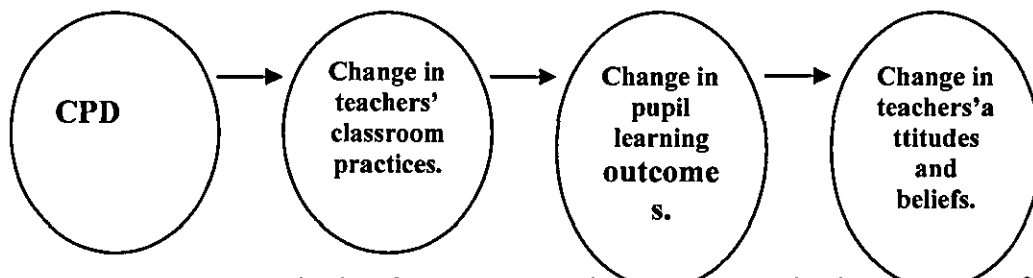
- a. Why do you think that..... is the most important thing for pupils learn? (Q 11)
- b. In what ways have you previously direct your own/school actions toward such aims?
- c. What do you plan to do in order to achieve them in the future?
 - i. What changes need to be made to get those results?
 - ii. How will you know that led to those improvements?
- d. Under what conditions do you believe is likely attending a CPD course to have a positive effect on student learning?

(I will give teachers Guskey's model to think over until the following day- and write some thoughts)

TASK

A model of Teacher Change (Guskey, 2002)

Use as a prompt for discussion about changes in beliefs



'According to the model, significant change in teachers attitudes and beliefs occurs primarily after they gain evidence of improvements in student learning. These improvements typically result from changes teachers have made in their classroom practices – a new instructional approach, the use of new materials or curricula, or simply a modification in teaching procedures or classroom format' (Guskey, 2002, p. 383). It is not the professional development per se, but the experience of successful implementation that changes teachers' attitudes and beliefs.

- What do you think of Guskey's model?
- In your experience, what prompts you to try something new with pupils?
- Why do you persevere with something new? Do you have an example?
- Why might you give up with something new you have learnt? Example?
- When do you consider that new learning (on your part) has been successful? Example?
- If Guskey's model of teacher change is correct, how might this change CPD provision in Greece?

Interview_2- Post-observation interview

The second interview with the case study teachers will be based on observations of PE lessons. The purpose of this interview is to explore teachers' knowledge and practices, the links between teacher learning and its impact upon practice and student learning. In particular,

- Discuss with the teachers about embedded knowledge and how it was acquired.
- Illuminate the learning demands associated with on-going practice (Little, 2002) and teachers' learning needs.
- Explore the configuration of teacher learning opportunities - sources of learning
- Discuss with the teachers about embedded knowledge

- a. What were your goals for this lesson?
 - i. What were your learning objectives for the students?
 - ii. What did you want the students to learn as a result of this lesson?
- b. How did you achieve them?
- c. Do you believe you were successful in achieving these goals?
 - i. Why do you believe that?
- d. What do you believe students learned in this lesson? What is your interpretation of students' performance/learning?
- e. Ask teachers about particular aspects of their teaching (e.g. something unexpected happened; a particular teaching approach):
 - i. How did your students reacted in this activity?
 - ii. Where did you learn? Where did you find support....?
 - iii. When? How? Why?
 - iv. Would you do the same thing few years ago? How/why/when did you change your practice?
- f. In what aspect(s) of your teaching were you particularly good/effective? Why do you believe that?
 - i. Where, when, how, why did you learn to do.....?
- h. How can you tell that led to improvements in pupil learning?

1. Learning needs

- a. Could you please identify areas of concern from this lesson? (maybe evidence from observation as well)
- b. Prompt teachers generate a list of potential problems that occur while teaching; potential problems that might limit/inhibit student learning (conceptualise problematic areas of teaching).
 - i. Why do you believe these problems exist?
 - ii. How do you plan to address these issues? Identify set of strategies that might be employed to improve student learning.
- c. Can you recall a particular dilemma situation?
 - i. What was all about? What were your actions?
 - ii. How did you solve it?
 - iii. What did you learn from this situation? (According to Black & Halliwell, 2000, by examining specific dilemma situations, together

with the teachers themselves we can be increasingly aware of implicit knowledge and how this was acquired).

2. Teacher Learning and Development- sources of learning

Explore with the teachers how they feel they learn best

a. You said in the previous example that..... Now, can you think about a recent instance when you feel you learned something. Could you please write it down (as a title)

- i. When was that? What happened exactly?
- ii. What do you feel you learned?
- iii. How did learning occur?
- iv. What happened with that learning?
- v. How has this learning you have identified helped you in your teaching/ practice?
- vi. As a result of the learning, what have you done differently?
- vii. Do you believe that your learning had a positive influence on student learning? How can you tell that? Why do you believe that? What evidence verifies this?

b. Other instances that you believe you learned?

- i. What do you feel you learned?
- ii. How did learning occur?
- iii. What happened with that learning?
- iv. How has this learning you have identified helped you in your teaching/ practice?
- v. As a result of the learning, what have you done differently?
- vi. Do you believe that your learning had a positive influence on student learning? How can you tell that? Why do you believe that? What evidence verifies this?

c. Can you identify other sources of learning for you?

d. From where do you get ideas for lessons? How do you implement them in practice? Can you describe the process?

e. Can you think of other ways that you would love to learn but does not happen at present?

- i. Why do you prefer this way?
- ii. What do you believe you learn?
- iii. What issues determine the extent to which you feel you are able to do this?

Interview_3

The purpose of the third interview with the case study teachers is

- Discuss their response to the task (Guskey's model)
- Explore the factors that affect teacher learning, improvement of practice and student learning

1. Discuss teachers' responses to the task

Having reviewed what the teachers have responded to the task as well as their responses to the previous two interviews, I will form the questions (so I won't repeat things we have already discussed)

2. Explore career-long learning

- a. How does new knowledge become part of daily practice?
- b. Do you feel that you are continuing to learn as a teacher?
 - i. Why do you believe that?
 - ii. What are the issues that affect the extent to which you can learn all the time?
 - iii. What motivates you to continue to learn as a teacher?
 - iv. What are the barriers for your continuing professional learning?
 - v. How could you describe your learning throughout the years?
 - vi. Why do you describe it like that?
 - vii. How would you describe your learning opportunities throughout the years?
- c. Definitions- practical applications
 - i. How would you define coherent teacher learning?
 - ii. What does it look like in practice?
 - iii. How would you define progressive teacher learning?
 - iv. What does it look like in practice?
 - v. How do you envision coherent, continuing, and progressive learning opportunities?
 - vi. What would you suggest to the government.....?
- d. If you had to identify the most important/overall purpose CPD should serve, what would it be? Why do you believe that?

3. Other issues to be covered if needed..... We can also discuss some other issues that have been raised from previous interviews and need clarification.

- a. You said that by attending a CPD course you learn.....
 - i. How can you apply this knowledge into practice?
 - ii. How can your student benefit?
- b. You said in our previous meeting that CPD can have a positive effect on student learning when..... why do you believe that?
- c. In what conditions can CPD have an impact upon your own professional learning? On your practice?

Appendix C – Open Ended Profile Questionnaire

PE-CPD Survey

Gender (please tick):	Male <input type="checkbox"/>	Female <input type="checkbox"/>		
Teaching experience (please tick):	Up to 2 years <input type="checkbox"/>	3 – 5 years <input type="checkbox"/>	6 – 10 years <input type="checkbox"/>	11+ years <input type="checkbox"/>

STEP ONE

- Thinking back over the last five years, list as many PE-CPD activities you have undertaken as you can.

Title	When Done	Duration	Type/Form	Provider

STEP TWO

- If you had to identify the most important purpose of CPD should serve, what would it be?

STEP THREE

- Looking back at your past PE-CPD experiences, please identify **ONE** CPD course or activity that you would describe as 'effective' and **ONE** that would describe as 'ineffective'. In the boxes please note up to three key words that explain why the CPD was effective and ineffective.

An effective PE-CPD course or activity for me was:

Title:

Organiser:

Duration:

Key words that describe why it was effective:

-
-
-

An ineffective PE-CPD course or activity for me was

Title:

Organiser:

Duration:

Key words that describe why it was ineffective:

-
-

STEP FOUR

- If you identified an 'effective' CPD experience above, please explain how specific learning from the effective CPD experience changed your practice.

STEP FIVE

- Please identify three important sources of professional learning for you:

STEP SIX

- Looking ahead over the next year, can you list the things you would like to learn in order to improve your professional knowledge and practice?

STEP SEVEN

- **Recommendations for future PE-CPD provision**

SPACE FOR COMMENTS

Thank you for spending time on this

Kyriaki

Appendix D – Letter to research participants



Career-Long Professional Development for Physical Education Teachers: Towards Situated, Sustained, and Progressive Learning

There is an increasing consensus in international literature that Continuing Professional Development (CPD) is a key component of school improvement policies. In the Greek educational context, this is reflected on the establishment of the O.EP.EK (Constitution of Further Education for Teachers), which represent an important step for more coherent learning opportunities for teachers. However, teacher learning is a complex process and researchers stress that in order to better understand and support it, more research is needed that employs a combination of method. This view is particularly relevant for the Greek educational context, given that teacher learning/development is an underdeveloped area of study, at a time of major educational changes (e.g. the introduction of a cross thematic curriculum framework for compulsory education). Within this framework, a research project is undertaken based at Loughborough University that is seeking to explore PE teachers' career-long learning in Greek secondary schools. In this particular 'profile' questionnaire, the researcher would like to know what you, as an experienced physical education teacher, think about the CPD you have encountered in the past, and what you would recommend for the profession in the future.

Please answer the questions below as fully as you can. The questionnaire format is open-ended to ensure that you are able to raise CPD issues that you feel are important for the teaching profession. We have asked for your

personal details so that we can follow-up with any queries. However, please be assured that you will not be identifiable in any research reports.

NB: the definition of CPD used in this study is very broad. It includes all professional development activities (physical education-specific and more general) undertaken since completing initial teacher training.

Thank-you.

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Appendix E – A Sample of Conference Presentations

Paper 1

Makopoulou, K. (2007). 'Learning to Become a Lifelong Learner: The Missing Link in Greek PE-CPD'. Paper Presented at the 12th Annual International Student Conference, School of Education, University of Leicester, June 2007.

Aims of the study

This paper reports findings from a research study undertaken on Physical Education teachers' career-long professional development in Greece. The aim of this study is two-fold: first, to explore the nature, quality and purpose of existing CPD provision for physical education teachers (PE-CPD); and second, to capture how and what PE teachers learn across a range of contexts. In this paper, the key focus of the discussion is teachers' views on existing CPD provision.

Continuing Professional Development (CPD)

The term 'continuing professional development' (CPD) has become prominent in the discourse of education in recent years and has been identified as a key factor in school improvement (Reynolds and Teddlie, 2000). Many definitions can be found in the international literature on CPD. The view that is adopted in this paper is that different definitions have been developed at particular points in time and in specific contexts reflecting the philosophical and pragmatic orientations of different educational systems. Early definitions of CPD highlight the acquisition of knowledge and skills by individual teachers in formal settings. In recent years, Christopher Day's (1999) definition is broader and seems to reflect emerging issues and concerns of educational agendas in Europe. These include the increased recognition of 'informal' learning; the urgent need to support change at both individual and school levels; and the central concern of demonstrating effectiveness of learning in practice. However, he also draws attention to the range of dimensions of teacher development, including not only cognitive but also moral, emotional and political development; and envisions teachers as change agents within and beyond their work contexts. This definition reveals the complexity and the multiple dimensions that need to be taken into account in order to develop a broad and deep understanding of teachers' CPD experiences.

CPD definition in the Greek context

Adopting such a situational position of the notion of CPD requires the development of a contextually sensitive understanding of this concept in the framework of the present study. In this paper, for purposes of convenience, CPD has replaced the Greek concept 'further education', which carries with it specific connotations about the nature of teacher learning. Drawing upon policy documents, 'further education' implicitly refers to all 'formal' and structured learning opportunities available to teachers, which take place largely out of the school context, and that aim to 'transmit' bodies of 'codified'

knowledge to teachers. The key aim is to keep teachers up-to-date with recent developments in education reflecting a 'knowledge-for-practice' orientation to teacher learning (Cochran-Smith & Lytle, 2001; 1999). In accordance with this rather narrow conceptualisation, the majority of state- or European-funded CPD opportunities are provided by regional centres for professional training (PEK) and appear to be dominated by what Garet et al describe as 'traditional' modes of delivery.

Effective CPD provision

Adopting such a narrow understanding of the notion of CPD contradicts the emerging findings of international research on the nature of effective CPD. Research suggests a conceptual departure from 'traditional', off-site, one-shot CPD courses, toward the use of multiple learning strategies across a range of contexts that support teachers to become independent/ active learners. More particularly, it is believed that CPD is more likely to be effective when it is active and practical, ongoing, reflective, collaborative, and focused upon the needs of specific teachers and pupils (Duncombe & Armour, 2004).

Identifying the gap in the literature

However, it has been argued that there is still a lack of systematic research into the range of professional development available to teachers (Fishman et al., 2000) and this is an issue of concern across subject areas and countries. This is particularly the case in Greece as research on CPD is at an embryonic stage of development. In relation to PE-CPD in Greece, there are fundamental questions to be asked about the nature of existing provision and its impact upon teacher practice and pupil learning (Armour & Yelling, 2004).

Research design

In order to explore some of these questions, a qualitative research study was undertaken in Athens. The research design was based on an argument proposed by Borko (2004): that an understanding of the professional development processes and practices must be based on a thorough analysis of all elements of a professional development system, namely the professional development programme; the teachers who are learners in the system; the CPD providers; and the context in which the professional development occurs. This is compatible with situative approaches to learning (Greeno et al., 1998; Lave & Wenger, 1991; Peressini et al., 2004; Wenger, 1998), which conceptualise learning as changes in participation in socially organised activities (Borko, 2004). To effectively reflect this approach, this research was conducted in four overlapping phases including: in-depth individual case studies with PE teachers; construction and dissemination of an open-ended profile questionnaire for teachers in a borough in Athens; individual interviews with key CPD stakeholders; and critical analysis of policy documents.

Qualitative data collection methods

This paper draws mainly upon data gathered from in-depth case studies with 11 PE teachers from 8 different schools in Athens. Short, repeated and intensive visits to the schools were conducted over the period of one academic year and data were collected from individual interviews with the

teachers. In total, 28 individual interviews were conducted. A constructivist revision of grounded theory (Charmaz, 2006) was used to analyse the data. Analysing the data required a five-phase procedure, which briefly included open coding, focused coding, memo writing, coding comparisons and finally putting all interpretations and comparisons together and presenting a story in a coherent manner.

Findings

Although the research participants varied in terms of years of teaching experience and CPD background, they were critical of many aspects of the current CPD system in Greece. These 11 teachers acknowledged that the quality of existing provision is uneven between different providers and contexts. However, they all identified some common issues that need to be addressed in the areas of CPD planning, the content of PE-CPD, and the nature of their involvement in the learning process. In other words, existing provision appears to be limited in terms of breadth and depth to support teachers' ongoing professional development. Some of these issues need clarification.

Lack of audit process

A theme emerging from all the research participants was the perceived scattered and 'opportunistic' nature of their CPD experiences. It was believed that CPD opportunities do not address teachers' existing learning needs due to the lack of an effective needs-identification process. The data suggest that CPD activities were designed and implemented on the basis of professional developers' perceptions of what is valuable professional knowledge in PE, rather than stemming from what teachers themselves identify as important. This resulted in repetitive and, from the teachers' perspectives, irrelevant CPD activities. One of the teachers, for example, prompted professional developers to talk about what the teachers find problematic in the context of their schools. Another teacher commented:

'In this last course I attended, nothing was new in terms of teaching volleyball. They presented a well-known teaching approach' (Mary, Int3, Sep05, p. 11).

The aim of this course was to refresh teachers' knowledge, but this obviously is not challenging for experienced teachers. Another teacher explained:

'CPD is centrally designed. CPD providers inform us about a specific course or programme and we attend it. Most of the times these courses are boring. I do not feel we learn many things' (Clive, Int1, Apr06, p. 1).

'CPD opportunities rarely support teachers improve their practice in the context of their schools and pupils. I think the future of CPD relies on the professional developers' ability to provide opportunities that support teachers improve their work under the existing conditions' (Peter, Int1, Apr05, p. 2).

Narrow PE-CPD content

In relation to PE-CPD content, it seems that the provision is linked to a model of technical rationality where the main focus is on teachers acquiring, renewing and transmitting skills to the pupils as ends in themselves. However, for the teachers in this study, teaching is much more complex than that and

there are other things they need to explore, re-think and improve to meet current demands and provide meaningful experiences to pupils. One teacher explained:

'CPD providers are sport specialists and they are presenting how to build up and teach skills in PE. I no longer believe that this is enough for teachers in schools' (Mary, Int3, Sep05, p. 1).

Another teacher commented:

'PE-CPD is based on how to teach skills rather than on what one can achieve through PE' (Kathy, Int1, Apr06, p. 6).

In this extract, the teacher stresses how existing provision neglects a critical examination of the implications of teachers' practices upon pupils and their learning in PE.

Haphazard CPD history

These teachers reported that, just like the teachers in Armour & Yelling's (2004) research, their CPD histories were somewhat haphazard, lacking a discernible learning pattern or progression. One teacher stressed: existing provision is not co-ordinated and most courses are delivered with no strategic design in place, clear goals or a vision about schools, teachers and pupils, which would potentially provide a clear direction for CPD. The majority of these teachers challenged the dominant belief that CPD is a single event. One teacher illustrated current provision:

'... CPD providers appear and deliver a course for few hours but then they disappear. If I want to ask them something 3,5,8 months later, where can I find them?' (Elisabeth, Int2, Apr05, p. 5).

From these teachers' perspective, effective CPD consists of multiple and follow-up courses that are linked in terms of content and purpose. They support a structured and outcomes-based CPD provision that aims to support their ongoing development rather than update their knowledge and skills.

Passive learners

In terms of the form of delivery, research participants described CPD provision as comprising mainly fragmented, 'one-shot' events that occurred out of their school context. It seems that two broad forms of delivery have dominated their CPD experiences, namely theoretical presentations and practical sessions. In any case, teachers are viewed as passive receivers of knowledge that has been generated elsewhere. One teacher reported that "current PE-CPD provision does not encourage me to think critically about my work, to make the links, or change the ways I perceive PE, teaching and learning" (Mary, Int2, Apr05, p. 9). In this framework, teachers' responsibility lies in adjusting and implementing new knowledge into their existing practice. This is a process that needs to be undertaken by individual teachers, in their school contexts, after the end of the programme and with no follow-up support. For example, one teacher explained: "CPD can give teachers some ideas but it goes down to individual teachers whether they will change their practice as a result or not" (Clive, Int2, Apr06, p. 2). In this framework, PE

teachers reported difficulties in transferring and developing CPD knowledge into their practice.

Discussion/ Conclusion

The majority of the research participants raised fundamental questions about the impact of these 'scattered' experiences upon their practice. They acknowledged that although sometimes useful in renewing or adding new ideas to their practices, these experiences are inadequate in broadening and expanding their capacity to learn. Data suggest that Greek PE teachers are similar to other teachers and raise similar concerns about the nature and quality of their CPD experiences. This paper suggests that the Greek authorities could learn from the wider research literature on effective CPD to improve existing provision. For example, in England, the National PE-CPD Programme encourages local providers to design innovative programmes that meet the needs of teachers in their areas. Establishing and sustaining professional learning communities feature prominent in this framework. The key aim is to engage teachers in meaningful active and interactive learning to enhance their capacity to learn alone and in collaboration with others. There are important lessons to be learned from this experience. Both authors of this presentation are involved in the evaluation of the programme (Armour & Makopoulou, 2007; 2006) and acknowledge that emerging CPD concepts are complex and need to be fully explored, both conceptually and empirically, in multiple contexts to understand their meanings and practical applications. In other words, moving into new concepts of CPD does not automatically solve the existing problems or limitations of existing CPD (Dewey, 1958). Rather, it is believed that they raise new challenges and new types of questions not only for policy makers but also for educational researchers (Borko, 2004). In this framework, the present study is a first step in raising teachers' issues and concerns regarding their CPD experiences. More research is required to explore in more depth the impact of 'reform' CPD activities upon teachers' practice and pupil learning in the Greek context.

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Paper 2

Makopoulou, K. & Armour, K.M. (2008). 'Teacher learning through professional dialogue: the Greek perspective'. Paper Presented at the AIESEP International Conference, Sapporo, Japan, January 19-26.

Introduction- The wider educational context

This paper reports a set of findings from a larger research study undertaken on PE teachers' career-long professional learning in Greece. This research project emerged during a period where the dominant discourse in education in Europe and elsewhere is 'lifelong learning'. Lifelong learning means learning throughout one's life and across different contexts and situations; in school, at work, at home, in the community (Green, 2007) and it encompasses the whole spectrum of formal, non formal, and informal learning (EC, 2001). Largely shaped by European Union legislation, policy documents in Greece recognise that employees of the 21st century need to be flexible and responsive to changing workplace circumstances and learn all the time. The European 'memorandum on lifelong learning' explains that the member states are responsible for their education and training systems; and they are responsible, amongst other things, for ensuring that teachers and other professionals have adequate and sufficient support to continually enhance their knowledge, skills, and understanding. Continuing professional development, is promoted as such a structure. However, in Greece, as a member state, there is no current research in this area; that is the nature and effectiveness of CPD provision and there are still fundamental questions to be asked about whether the existing CPD system is well equipped to keep pace with these developments. This lack of research and emerging demands on teachers and the educational system have been the impetus for my research.

Research questions

The first research question is 'what is the nature and quality of existing professional development opportunities available to teachers?' The second research question, which is the focus of this presentation, seeks to explore how PE teachers learn across the whole spectrum of their professional learning experiences; and what kind of learning experiences are considered valuable for their professional practice. The question of how teachers learn is important for two main reasons: first, in recent years, there has been a significant shift in understanding how human learning occurs- from rote memorisation to active learning, when learners think about and try out new ideas. Constructivist and situated perspectives on learning dismantle existing assumptions about teacher learning, provide a valuable means through which researchers can engage in broader debate on the nature of learning, and mark an important new direction for research (Light, 2008; NCRTL, 1995). The second reason for conducting research on teacher learning lies within the recently emerged lifelong learning agenda already discussed. Researching 'how teachers learn' is important because answers to this question can provide valuable insights into how to build and improve structured professional development experiences for teachers. This is the case made in this paper.

Methods

The fieldwork for this study was conducted in four overlapping phases and a range of predominantly qualitative methods were employed. The phases include: construction and dissemination of an open-ended profile

questionnaire for a wide (but not 'representative') number of PE teachers in one borough of Athens; individual interviews with key CPD stakeholders, in both the policy and practice level; critical analysis of policy documents; and in-depth individual case studies with PE teachers, during which we discussed their learning experiences. With this research design, we sought to explore all the dimensions of a CPD system (Borko, 2004). However, the case studies lie at the heart of this paper.

In total, 11 teachers, from 8 different schools in Athens, have been involved in the study, with an overall profile that covered the following: both male and female teachers, teachers with a range of teaching experience, and teachers with a range of differing commitments to teaching and to PE. The case studies were undertaken by making short, repeated and intensive visits to the case study teachers' schools and largely relied on individual interviews and observations of PE lessons.

As already discussed, the focus of this paper is on one set of findings focusing on teachers' learning experiences through professional dialogue.

Finding 1: the importance of professional dialogue

For all teachers in this study, conversations with other teachers- interestingly only with 'trusted' colleagues, not just anybody in the school- represent an important element of their career-long learning experiences, because, as they argue, teachers talk about the issues and struggles they confront in their everyday lives in schools and share ideas and experiences that have proved to work in their specific contexts. Learning, from this perspective, is very situated to and embedded in their specific contexts. Hannah talked about how teachers not only share problems but also exchange solutions and ideas. Peter explicitly argued that collegial conversations afford teachers the kind of experiences that are much more meaningful and relevant to their needs than traditional CPD lectures because, as he said, "we talk about our realities rather than the ideal". Margaret believed that although coming from different schools and holding different positions from each other, PE teachers share similar problems. She said:

'We meet and we tell stories and share struggles that are important to us' (Margaret).

Interestingly, these teachers found that the process of engaging in professional dialogue and clearly articulating their thoughts and experiences involves learning.

Finding 2: what do teachers talk about and when?

It seems that teachers seek collegial support when they encounter a specific problem in practice; when they want to renew or refresh their teaching repertoire; and when they want to learn something new; in other words, expand their knowledge base and skills. For example, Jon said:

"When I was younger,I was trying to find ways to solve problems I had in practice- when I knew things were not working and wanted new ideas. I turned to friends who were PE teachers as well" (Jon, Int1, Mar05, p. 3).

In the second case, Elisabeth argued: 'we might ask 'what are you doing in the first grade of secondary school because I feel that I'm stuck somewhere and I cannot teach something different' etc. (Elisabeth, Int1, p. 3, Mar05).

Clive, amongst other teachers, explained that PE teachers can be highly knowledgeable about certain areas, but less skilled or informed in others. In this respect, sharing is meaningful:

'I believe that I gained a lot by interacting and talking with colleagues who were friends. They gave me a lot of practical support, advice and guidance on aspects that I was not exactly an expert' (Clive, Int2, Apr06, p. 5).

As I have said earlier, the majority of these teachers explained that teacher learning is more likely to occur when teachers involved are deeply familiar with each other, hold mutual respect for the knowledge and capabilities of one another and share similar interests.

Finding 3: Quality and content of teachers' interactions

Although some of these teachers were largely satisfied with the nature and content of their current interactions with 'trusted' colleagues, others were more sceptical about their experiences. They acknowledged that existing interactions, although potentially useful in renewing teaching practice and adding new ideas to existing repertoire, were sporadic and unsystematic in nature and did not afford opportunities for teachers to re-consider or challenge fundamental assumptions about teaching and learning. Philip believed that PE teachers are worrying too much about whether they are teaching a particular gymnastics lesson well. They think that they need that sort of subject knowledge and they need to go on a course or ask a colleague to find out about it. For Philip, PE teachers do not have an overall view of them as teachers and they do not think about pupils' learning. They talk about teaching rather than learning. These two quotes illustrate Philip's argument that teachers' discussions are limited in scope and tend to focus on technocratic aspects of PE teaching:

'Teachers' discussions largely revolve around practical issues: how to organise our lessons, how to improve pupils' technique, how to tackle lack of resources and facilities in a simple and mechanistic way' (Int2, Sep06, p. 4).

'The majority of PE teachers are kinaesthetic and visual learners. They want to observe others or talk with others and learn. However, I believe that PE teachers rely a lot on the image and do not attempt to reveal what is underneath the surface and explore how and why we teach the ways we teach' (Int1, Apr06, p. 7).

In a similar way, another teacher Mary made a distinction between professional dialogue that is largely descriptive rather than analytic and explanatory in nature. She said:

'Meaningful teacher learning occurs when teachers share not only how but also why they have taught a specific teaching unit in that specific way, taking into account their students and their contexts' (Int3, Sep05, p. 10).

The majority of the teachers believed that they do not really know how to learn from each other in effective ways and argued that the school structures and work conditions do not provide sufficient opportunities for them to do so.

Finding 4: Collegial dialogue and interactions in schools?

It soon became evident that in their individual work environments, these teachers rarely had any opportunity for meaningful interactions with their colleagues, beyond administrative issues and fixtures. An illustrative example is on this slide:

'Our discussions focus on administrative issues and fixtures. Who is going to take the kids to the games, how we can cover each other, and all those sort of things. We do not talk about how we are going to teach this unit and why. We do not talk about purposes or the direction of our actions' (Clive, Int2, Sep06, p. 5).

The majority of these teachers drew attention to established working conditions, with increased mobility of the teaching workforce in different schools every year and job uncertainty, with a large number of supply teachers who have not yet secured a permanent post. 4 out of the 11 teachers shared their teaching workload into two different schools and reported that for the most part of their work, they worked on their own. Philip also recognized that working with supply non-permanent staff, negatively impacted on his motivation to engage in meaningful interactions:

'Teacher collaboration in schools is influenced by the work conditions. There are schools with one permanent PE teacher and supply teachers who change every year. I work in such a school. This situation de-motivates both these teachers and myself to work together and develop a shared plan for the school' (Int2, Sep06, p. 5).

Mary moved the discussion further and drew attention to established cultures of individualism and teacher isolation in Greek schools that inhibit teacher interaction and collaboration.: As she argued:

'Teachers do not collaborate. Teachers do not know how to collaborate. They haven't learned how to give feedback to each other, to make judgments about teaching quality and teaching practice; they find it weird if someone asks them to do so' (Int2, Apr05, p. 5).

Finding 5: CPD and teacher interactions

In CPD events, the situation does not change dramatically. These teachers reported that opportunities for dialogue and discussion are minimal and that when conversations do occur, they are 'superficial' and not sustaining, reflecting professional developers' lack of understanding of how to engage teachers in learning.

'We were actually explaining our problems and the tutors said that they would report these problems to their superiors. They kept saying that we need to work hard. Well, is that enough?' (Margaret, Int1, Apr05, p. 5).

Interestingly, in the case when CPD was designed to foster teacher interactions, Mary reported that it was teachers who did not seem to be willing

or knowledgeable about how to interact effectively, being active learners, and making the most out of this learning opportunity.

'In this programme, when they [professional developers] told us to work in groups, almost all teachers resisted. They wanted to sit and listen the experts. This is how they have learnt to do. This is a problem of Greek education, which is based on written forms of learning and individualism'.

Discussion/ Conclusion

The findings of this research show quite clearly that these teachers value collegial dialogue and consider it an important source of learning. Nevertheless, it seems that in schools there is no space for any meaningful sharing of knowledge; and in CPD, according to these teachers, professional developers do not have the knowledge to structure opportunities for meaningful dialogue. In the absence of this, these teachers turn to people whom they know well and trust, such as college friends, to answer their pressing questions. Therefore, the good news is that one of the pillars of effective CPD is already in place- teachers want to interact; they do it spontaneously and they find it valuable. The bad news is that few teachers found that they had the skills needed to maximise the potential of professional dialogue. Emerging findings suggest that teachers' discussions seem to be narrow in scope and superficial in nature and, regrettably, in this context, many learning opportunities are missed. This paper suggests, as it has been suggested elsewhere, that there is an urgent need to ground CPD policies and practices upon a sound conceptual understanding of teacher career-long learning. We need to listen carefully to teachers' experiences and structure CPD opportunities that reflect their learning preferences. However, we also need to challenge them to grasp in full the complexity of teaching and learning rather than acquire a set of neat, simplified technical advice on classroom management or teaching skills. Teachers need to be challenged to ask each other questions that they have not asked before and understand their professional existence- or identity- as one of critical inquirers. This requires a dramatic cultural and structural shift in the ways teachers, professional developers, policy makers and others talk about and understand the role of the teaching workforce in the contemporary, knowledge driven society. This shift must be informed by rigorous research; because, even if we recommend that teacher collaboration must be promoted, real change will not occur if we do not analyse, decode and explain the contextual reality of Greek schools and provide adequate support and respect to teachers.

Therefore, the present study is the first step in the area of PE-CPD in Greece, which illustrates an important finding but also raises fundamental questions. This study is indeed the first small step 'on a journey of a thousand miles'.

