

Loughborough University  
Institutional Repository

---

*Effective teacher learning in  
primary school physical  
education: an analysis of  
school-based collaborative  
professional learning as a  
strategy for teacher  
professional development*

This item was submitted to Loughborough University's Institutional Repository by the/an author.

**Additional Information:**


- Doctoral Thesis. Submitted in partial fulfillment of the requirements for the award of Doctor of Philosophy of Loughborough University.

**Metadata Record:** <https://dspace.lboro.ac.uk/2134/7723>

**Publisher:** © Rebecca Duncombe

Please cite the published version.

This item is held in Loughborough University's Institutional Repository (<https://dspace.lboro.ac.uk/>) and was harvested from the British Library's EThOS service (<http://www.ethos.bl.uk/>). It is made available under the following Creative Commons Licence conditions.




creative  
commons  
C O M M O N S D E E D


**Attribution-NonCommercial-NoDerivs 2.5**

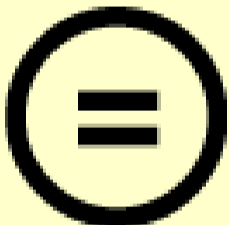
**You are free:**

- to copy, distribute, display, and perform the work

**Under the following conditions:**

 **BY:** **Attribution.** You must attribute the work in the manner specified by the author or licensor.


 **Noncommercial.** You may not use this work for commercial purposes.

 **No Derivative Works.** You may not alter, transform, or build upon this work.

- For any reuse or distribution, you must make clear to others the license terms of this work.
- Any of these conditions can be waived if you get permission from the copyright holder.

**Your fair use and other rights are in no way affected by the above.**

This is a human-readable summary of the [Legal Code \(the full license\)](#).

[Disclaimer](#) 

For the full text of this licence, please go to:  
<http://creativecommons.org/licenses/by-nc-nd/2.5/>

**Effective teacher learning in primary school physical  
education: An analysis of school-based collaborative  
professional learning as a strategy for teacher professional  
development**

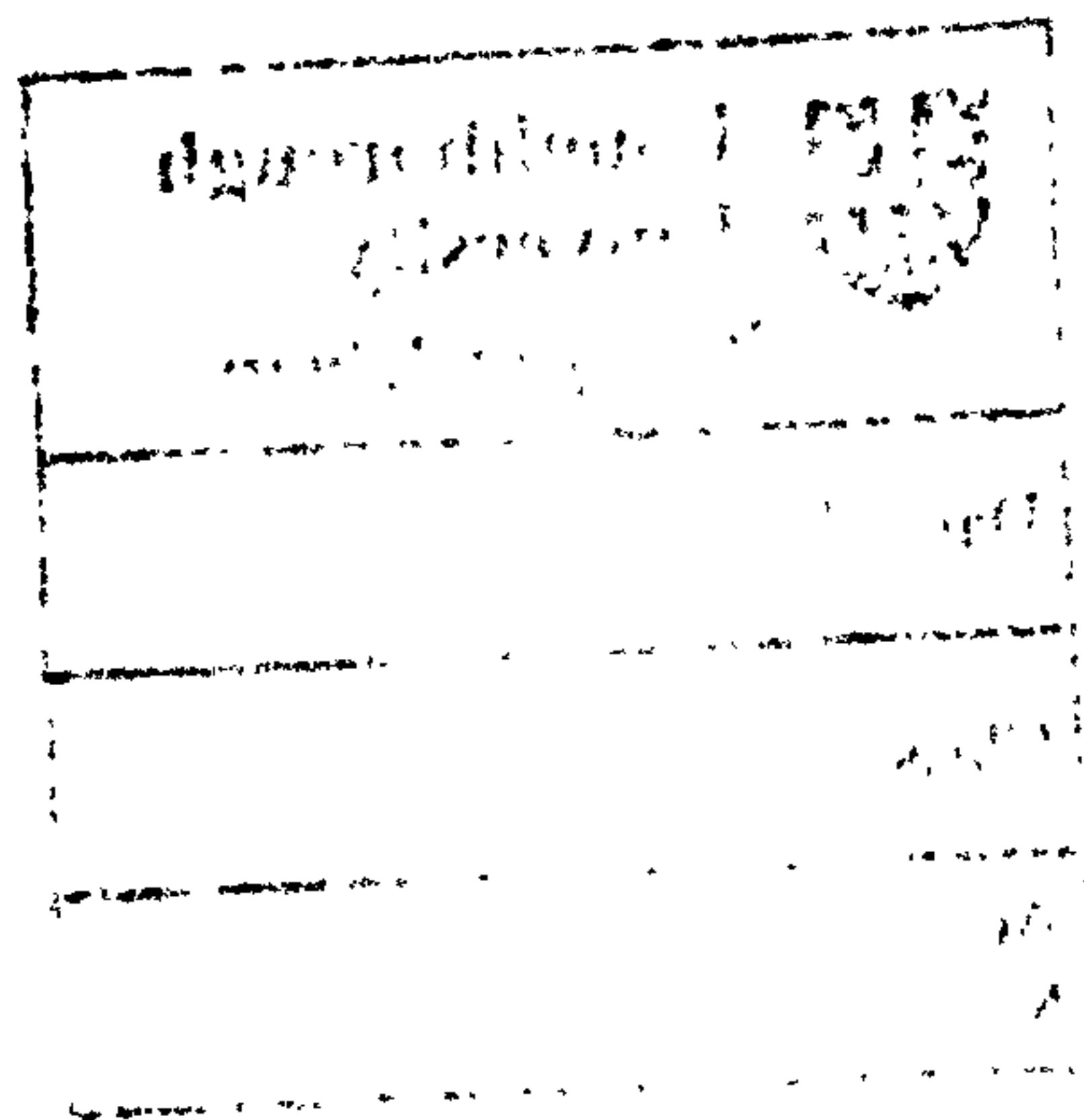
by

Rebecca Duncombe

A Doctoral Thesis submitted in partial fulfilment of the requirements for the award of

Doctor of Philosophy of Loughborough University

October, 2005



© by Rebecca Duncombe (2005)

## Abstract

This thesis analyses the use of Collaborative Professional Learning (CPL) as a learning strategy for teachers' Continuing Professional Development (CPD) within primary Physical Education (PE) in England. Underpinning this research are the researcher's own experiences of teaching PE in a primary school and the problems faced as a result of inadequate initial teacher training and professional development in PE. The review of literature provides an overview of CPD and PE-CPD, examines both historical and current models of provision, and considers national and international criteria for effective and ineffective CPD. CPL has been identified as a key feature of effective CPD provision, thus the fieldwork phase of this research aimed to establish whether and how CPL could be used to enhance teachers' professional learning in primary PE. The fieldwork was divided into two phases. In the first phase, observations, interviews and questionnaires were employed to identify how primary teachers in two case study schools teach and learn within PE. In the second phase, knowledge gained from the earlier fieldwork and also the literature review was used to design two 'models' of PE-CPD, based around athletics, to be delivered in the two schools over the course of a school term (3 months). Both models included the provision of resources, an athletics scheme of work with accompanying lesson plans and weekly sessions where the teachers were shown the skills necessary to teach athletics (throwing, jumping, running). Sessions within each model of provision were designed to reflect the principles of constructivist learning theory and employed school-based CPL as a tool for learning. The impact of each model upon the teachers' learning was evaluated through interviews, questionnaires and, in one school, observation of subsequent athletics lessons. The data from both phases of the research were analysed using a constructivist version of grounded theory (Charmaz, 2000).

Whilst the two models of CPD were rated as effective and changed the ways in which PE was taught in the two schools, the teachers struggled to learn collaboratively. Three potential reasons for this are identified: teachers did not have the necessary PE subject knowledge about athletics to share with their colleagues; *Communities of Practice* (Wenger, 1998) within which the teachers could collaborate did not exist for primary PE in these two schools; the researcher didn't actively attempt to cultivate a



Community of Practice and for CPD providers, this may be an essential step in maximising collaborative learning in PE-CPD. In addition, Wenger's (1998) social theory of learning is used as an analytical tool to further illustrate the personal, structural and practical barriers to CPL that existed in the two case study schools. Three tentative recommendations are made that would act as useful starting points for future research: in order to embed teachers' learning within the school context, teachers' 'free' time should be restructured to facilitate CPL within *Communities of Practice*; timetables could be restructured to encourage team teaching; and lesson planning or planning schemes of work needs to be recognised as an opportunity for collaboration. Finally, in considering these findings in the context of the aims and structure of the new National PE-CPD Programme for England, it is suggested that if the programme is to deliver its ambitious aims, it may need to be more radical than is currently the case.

## Publications and Conference Presentations

### Publications

Armour, K. M. & Duncombe, R. (2004) Teachers' continuing professional development in primary physical education: lessons from present and past to inform the future. *Physical Education and Sport Pedagogy*, 9 (1), 3-21

Duncombe, R. & Armour, K.M. (2004). Collaborative professional learning: From theory to practice. *Journal of In-Service Education*, 30 (1), 141-166.

### Conference Presentations

Duncombe, R. & Armour, K. (2005) *The school as a Community of Practice for primary physical education: The myths and the reality*. Paper to be presented at The British Educational Research Association's Annual Conference, Glamorgan, 14<sup>th</sup> – 17<sup>th</sup> September.

Armour, K. M., Duncombe, R. & Fraser, S. E. (2004) *Primary School Teachers and the National PE-CPD Programme for England*. Paper presented at the British Educational Research Association Annual conference, UMIST, Manchester, 16<sup>th</sup> – 18<sup>th</sup> September.

Duncombe, R. (2003). *Enhancing teachers' and pupils' learning in primary school physical education: the role of collaborative professional learning*. Paper presented at the British Educational Research Association's Annual Conference, Edinburgh, September, 2003.

Duncombe, R. (2002) *Continuing Professional Development: Radical Agent of Change or Relic of the Past?* Paper presented at British Educational Research Association Annual Conference, Research Student Symposium, University of Exeter, 11th -14th September.

## Acknowledgements

The completion of this project would not have been possible without the help, advice, support and kindness of a number of people. Of these people, my biggest thanks must go to Kathy Armour, my supervisor, who has sympathetically guided me through the PhD process. Thanks must also go to John Evans, David Kirk and the pedagogy group for their advice and valuable contributions. I would like to express my gratitude to the teachers and pupils who took part in this research - it is impossible to measure the contribution they have made. The value of *Communities of Practice* is identified as crucial for professional learning in this thesis and so it is fitting that my own participation in the pedagogy research student Community of Practice at Loughborough University has provided me with the academic and emotional support required to complete this PhD – thank you Emma, Toni and Rachel (for everything!). Thanks must also go to Andy for his almost unquestioning support throughout the last three and a half years and for “pretending to be interested”. Embarking upon this PhD would not have been possible in the first place without the love and support of my parents throughout the whole of my academic career, and my interest in sport may never have been sparked if it hadn’t been for all those afternoons spent as a hockey spectator! As a final acknowledgement, I would like to thank Julie, Robbie, Hannah, Dominic, Sarah and Max for providing light relief and entertainment when I needed it most.

## Table of Contents

<b>Certificate of Originality .....</b>	<b>iii</b>
<b>Abstract.....</b>	<b>iv</b>
<b>Publications and Conference Presentations .....</b>	<b>vi</b>
<b>Acknowledgements .....</b>	<b>vii</b>
<b>Table of Contents .....</b>	<b>viii</b>
<b>Chapter One: Introduction .....</b>	<b>1</b>
1.1 An Introduction.....	1
1.2 Pre-service Experiences: an impressionist tale .....	1
1.3 In-service Experiences: a personal tale.....	5
1.4 Wider Context for the Research.....	7
1.5 The Research Questions.....	10
1.6 Effective CPD? .....	11
1.7 Measuring the Impact of CPD .....	11
1.8 Thesis Structure .....	12
<b>Chapter 2: Review of the Literature .....</b>	<b>14</b>
2.1 Introduction.....	14
2.2.1 Continuing.....	14
2.2.2 Professional.....	15
2.2.3 Development.....	17
2.3 CPD: what it is in practice .....	18
2.4 Formal Learning.....	20
2.4.1 Off-site courses .....	20
2.4.2 On-site ‘meetings’ .....	21
2.5 Informal Learning .....	21
2.5.1 Individual Learning Experiences .....	24
2.5.2 Collaborative Learning Experiences.....	24
2.6 Effective CPD .....	25
2.7 Effective PE-CPD .....	27
2.8 Collaborative Professional Learning.....	29
2.9 A Theoretical framework for Collaborative Professional Learning. ....	29
2.10 Collaborative Professional Learning in Practice.....	39



<b>Chapter 3: A History of CPD and PE-CPD</b> .....	<b>48</b>
3.1 Introduction.....	48
3.2 A History of CPD (1870 – 1944).....	48
3.3 A History of PE-CPD (1850 - 1944).....	51
3.4 A History of CPD (1944-1972).....	57
3.5 A History of PE-CPD (1944-1972).....	59
3.6 A History of CPD (1972-2005).....	61
3.7 A History of PE-CPD (1972 – 2005).....	67
3.8 PE-CPD Research .....	71
3.8.1 An overview of Armour & Yelling’s research.....	71
3.8.2 What PE-CPD have teachers undertaken.....	72
3.8.3 Effective PE-CPD .....	73
3.8.4 Keay’s research on NQTs and CPD.....	73
3.9 Traditional vs. Reform CPD .....	74
3.10 Conclusion .....	75
<b>Chapter 4: Methodology</b> .....	<b>76</b>
4.1 Introduction: some personal reflections.....	76
4.2 The Interpretive Paradigm and Social Constructivist Theory.....	78
4.3 Qualitative Research .....	80
4.4 Reflexivity.....	82
4.5 Research Strategies .....	87
4.5.1 Case Studies .....	89
4.5.2 Action Research .....	93
4.6 Validity and Reliability .....	100
4.7 Methods of Data Collection .....	104
4.7.1 Interviews.....	105
4.7.2 Questionnaires.....	108
4.7.3 Observations .....	110
4.7.4 Field Notes .....	113
4.8 Descriptions of the Two Models of CPD.....	114
4.8.1 Key features of the professional development.....	114
4.8.2 The lesson plans.....	114
4.8.3 The Equipment.....	115
4.8.4 School A.....	116

4.8.5 School B .....	116
4.9 Data Analysis .....	117
4.9.1 Introduction.....	117
4.9.2 Data Analysis: Practical Considerations .....	117
4.9.3 Data Analysis: An adaptation of Grounded Theory .....	120
4.9.4 Data Analysis: A Constructivist approach to Grounded Theory .....	122
4.9.5 Data Analysis: How the data were analysed.....	123
4.9.6 Data Analysis: A conclusion.....	132
4.10 Ethical Considerations .....	132
<b>Chapter 5: The Schools, the Teachers and their PE Teaching .....</b>	<b>134</b>
5.1 Introduction.....	134
5.2 The Case Study Schools and Their Teachers.....	134
5.2.1 School A.....	134
5.2.2 Teacher Profiles: School A .....	136
5.2.3 School B.....	138
5.2.4 Teacher Profiles: School B .....	139
5.3 The Lesson Observations.....	140
5.4 An Analysis of the Lesson Observations .....	141
5.5 High Quality PE Teaching Within These Lessons .....	143
5.6 The Teachers' PE and PE-CPD Stories .....	148
5.7 Teachers' Learning in PE.....	148
5.8 Pre-service or Initial Teacher Training (ITT) .....	149
5.8.1 Mainly 'doing' sports.....	149
5.8.2 Not enough.....	149
5.8.3 Can't remember it .....	150
5.8.4 Enjoyable .....	150
5.9 In-service Training/CPD.....	150
5.10 Other Sources of Ideas for Teaching PE.....	151
5.11 CPD and Teachers' Learning: Effective PE-CPD for Primary Teachers .....	152
5.12 Conclusion .....	157
<b>Chapter 6: Analysing the Effectiveness of Two Models of CPD .....</b>	<b>159</b>
6.1 Introduction.....	159
6.2 The Athletics Professional Development in School A .....	159
6.3 Analysing the Effective Features of this CPD .....	160



6.4 Understanding the Complexities of CPD Provision .....	163
6.4.1 School-based .....	164
6.4.2 Situated learning .....	164
6.4.3 Ongoing.....	165
6.4.4 Practical and Active learning .....	165
6.5 Collaborative Professional Learning.....	167
6.6 Conclusion .....	169
<b>Chapter 7: CPL as a Strategy for CPD in Primary PE.....</b>	<b>170</b>
7.1 Introduction.....	170
7.2 CPL in Primary PE During the Research.....	170
7.3 The Importance of PE Knowledge.....	175
7.4 The Existence of a Community of Practice in Primary PE.....	176
7.4.1 Communities of Practice: how they differ in PE .....	177
7.5 Communities of Practice as a ‘Natural’ Feature of Primary Schools .....	182
7.6 Barriers to CPL within Communities of Practice .....	186
7.6.1 Personal Barriers .....	186
7.6.2 Structural Barriers .....	189
7.6.3 Practical Barriers.....	194
7.7 Conclusion .....	197
<b>Chapter 8: Conclusion, Recommendations and Limitations .....</b>	<b>199</b>
8.1 Introduction.....	199
8.2 An Overview of The Research Process and Findings.....	200
8.3 Recommendations.....	203
8.3.1 Restructuring Meeting Time .....	205
8.3.2 Restructuring lessons to enable team teaching .....	206
8.3.3 Restructuring lesson planning to encourage joint planning .....	207
8.3.4 Other points for consideration.....	207
8.4 Limitations .....	209
8.5 Final Thoughts .....	209
<b>References.....</b>	<b>211</b>
<b>List of Appendices.....</b>	<b>235</b>
<b>Appendix A ESRC quality framework .....</b>	<b>237</b>
<b>Appendix B: Interview Schedule .....</b>	<b>244</b>
<b>Appendix C: PE and PE-CPD Questionnaire .....</b>	<b>246</b>

<b>Appendix D: CPL Questionnaire .....</b>	<b>251</b>
<b>Appendix E: Observation Template.....</b>	<b>257</b>
<b>Appendix F: overcoming common problems .....</b>	<b>259</b>
<b>Appendix G: Medium Term Plans .....</b>	<b>261</b>
<b>Appendix H: CPD handouts .....</b>	<b>270</b>
<b>Appendix I: comparison of Schools.....</b>	<b>280</b>
<b>Appendix J: Lesson Observations – school A.....</b>	<b>281</b>
<b>Appendix K Lesson Observations – school B.....</b>	<b>285</b>
<b>Appendix L: The teachers PE and CPD stories (school A).....</b>	<b>288</b>
<b>Appendix M: The teachers’ PE and CPD stories (school B).....</b>	<b>293</b>
<b>Appendix N: The teachers’ assessment of the CPD.....</b>	<b>295</b>
<b>Appendix O: The teachers’ assessment of the CPD.....</b>	<b>300</b>
<b>Appendix P: Diary of Events (school A) .....</b>	<b>302</b>
<b>Appendix Q: Diary of Events (School B) .....</b>	<b>308</b>
<b>Appendix R: Introduction to CPL.....</b>	<b>312</b>

## Chapter One: Introduction

### 1.1 An Introduction

I was a primary teacher who had to teach Physical Education (PE). That was the starting point for this research and so it is fitting to begin this thesis by sharing some of my experiences. I have chosen to present these experiences in the form of two short stories. Narratives in research are commonly used as a form of data analysis. For example, Sparkes, Nilges, Swan and Dowling (2003) explain that narratives are useful as a way of *“reducing an enormous amount of data to produce a manageable and meaningful text”* (P.163) and as *“the re-synthesis of the coded themes into a more integrated whole”* (P. 164). In this instance, narrative is being used as a tool to provide a clear, concise and easily accessible account of the context for the research and the later data analysis.

The first story is a narrative about PE in primary teacher education. It is woven from personal experience as a teacher and a researcher; fiction rooted in fact or an ethnographic fiction (Sparkes, 1996). Hence, in order to construct the story, I draw upon the experiences of those who trained and taught with me, and also the thoughts and experiences of the teachers I have met through this research. To some extent, therefore, this first story is an impressionist tale (Van Maanan, 1988) written in a polyphonic voice (Nilges, 2001).

### 1.2 Pre-service Experiences: an impressionist tale

The first part of the story begins in a professional studies lecture towards the end of the PGCE (Postgraduate Certificate of Education) year. A discussion about PE teaching has started and Pam, the tutor, is attempting to reassure the trainees:

*“If we aren’t allowed to teach PE without our mentor teachers present while we are still at college, but we are when we take up our first post, what happens to us over the summer that suddenly equips us with the knowledge and skills to teach PE, unaided, at the beginning of September?” Jake asked.*

*“I think it’s more to do with insurance and legal responsibility than skills or knowledge advancement actually Jake,” Pam replied.*

The rest of the group looked a little awkward and several people shuffled in their seats; some smirked and one girl looked terrified. She whispered to me, *“but I still*

*haven't even seen netball being played and I don't understand the rules at all. Is it like basketball? We don't play it in Canada".* I hoped I wasn't lying when I responded, *"Don't worry, you'll be fine".*

Pam was looking a little uncomfortable as if she knew what was coming next. Vicky put up her hand and confessed:

*"I am actually a little worried about teaching PE. We have only had 6 hours of taught PE during our whole PGCE year. I know somebody at another college who had a whole week of PE but even she was worried that she had not learnt enough. The two hours on gymnastics was spent 'playing' on the apparatus and even then we didn't have our full two hours because we messed about and got told off for being too noisy. My friend in the other group said some of them got sent out for being naughty and went to the pub instead."*

Pam nodded sympathetically and explained that there wasn't enough time in the PGCE year to fit in any more PE. She reassured us that we had received the minimum required and that it was a problem common to most PGCE courses. She stressed that it was important that we did enough maths and English so that we were able to cope with the literacy and numeracy strategies. Rachel interrupted her:

*"I loved PE at school, I was in all the teams, I am still fairly active now and run for the university. I have taught loads of PE lessons in school and have had a lot of positive feedback but I struggle to know where to start with dance. I hated dance at school. Mum made me go to ballet every Tuesday until I was 8 and I was the only person in the group to fail the exam".*

*"I am a bit like that,"* nodded Charlotte and the whole group turned towards her and laughed at the memory of her on the dance floor at the Christmas disco. Charlotte turned red and continued to express her concern:

*"We had two hours of dance this year. It was really good and gave me a couple of ideas but I don't think I am really prepared to teach a whole unit of dance. I think I would be very good at getting my class to imitate a rainforest but I am stuck for ideas other than that."*



Pam, still looking uncomfortable, explained that weekend courses had been put on for us in netball and football and it had been our choice whether to attend them or not. Admittedly, these two half day courses had been very good but they were neither long enough to make an impact or close enough to a teaching practice to be put into practice. What's more, they had been in our own time and at our own expense. I had been excited after the netball course and surprised at how useful it had been. I was shown how to adapt the equipment, how to set up small-sided games and how children could develop their understanding through playing uneven-sided games. The football course had also been useful but I was one of three females in a group of about 20 and I had barely kicked a football before. It was fun, funny and a little embarrassing to be put in that situation, and I remembered thinking at the time, how much some people would have hated to have been there. Pam asked how many of us had attended these two courses and a scattering of hands were shown. She seemed to be implying that our lack of confidence to teach PE was somehow due to our lack of attendance at these two courses. I had attended them, but I did not feel confident. Like Charlotte, I believed I would be able to get my class to imitate a rainforest but was not able to extend this to other areas of dance. I had no idea what was expected of children in gymnastics, what it was safe to ask them to do or how to get the apparatus out. I was not brave enough to say any of this to Pam but I was very relieved to hear that other people in my group shared my concerns.

Vicky, always one to express her feelings, explained that she felt let down by the course and did not feel able to go into school in September and teach PE (or art or music) effectively. Many people in the group nodded in agreement. Then Sam asked the question that Pam had probably been dreading:

*"I am sure I am not alone in this but is anyone else a little bit worried about swimming; we have had no input at all on how to teach swimming and what about outdoor and adventurous activities? I believe we are expected to teach that too and I don't even know what it is. Is it orienteering or something? Actually, I am not sure what orienteering is really."*

A big sigh of relief seemed to spread across the group. Somebody had been brave enough to admit that they didn't know what 'OAA' was. It quickly became clear that nobody in the group knew what it was either. Pam did not seem too confident that she

knew what it was but said not to worry about it too much because our schools would probably arrange for classes to go on field trips and this was when they would experience their whole primary school's-worth of outdoor and adventurous activities. One of the other members of the group explained that if we were required to take our class swimming then our schools would provide extra training for us and we would need some sort of lifesaving certificate too.

*“But what about athletics?”* asked Richard. *“We haven’t had any training for athletics”*. Pam asked if any of us had been on the advertised Easter course. I had been on that too and it had been really useful but nobody else from the group had been there. In fact, I had been the only NQT on the course and I had felt a little out of place, but at least I had been able to participate in all the activities. Some of the qualified teachers were injured or not fit enough to take an active part in the day. I had a lot of fun and learned that athletics consists of running, jumping and throwing, and also how to organise a sports day.

Pam wasn't able to answer Richard's question and so suggested that he engage in some CPD during his NQT year. More abbreviations. An NQT was a newly qualified teacher but I wasn't sure what CPD was. Actually I didn't have a clue. There were a lot of blank faces in the room but nobody was brave enough to admit that they did not know what CPD was. It did the trick though: Pam had silenced us. We left our professional studies session still unsure about PE but it was slightly reassuring to know that we shared our failings with the rest of the group. We left the room feeling somewhat subdued and headed towards the dining hall. Nobody really spoke until we were sat down and even then people seemed to be testing the water. Vicky was the first to speak:

*“If they know that 6 hours of PE training isn't enough to teach us how to teach PE then why don't they do something about it. We have had two hours of gym, two hours of dance and two hours of games. I don't really know any more about teaching PE than I did before I started. I haven't taught any PE during my teaching practices and have only observed a few PE lesson throughout the year. How am I going to be ready to teach PE in September?”*



Vicky's eyes started to water. She coughed back the tears and allowed Sam to continue with the complaints.

*"I am sure we can learn to teach PE better during our NQT year. I think we have some non-contact time when we could observe lessons and I think we get extra funding to go on courses. I am not really interested in PE but I am very worried that I may teach something wrong and it's not like Maths when you teach them the wrong thing because they can't get hurt in Maths. If I teach them the wrong thing in PE, they could get hurt and then whose fault will that be?"*

Everyone seemed to agree with this and the reality dawned on us that not knowing how to teach PE really was a problem. It was the beginning of June and we had finished all our teaching practices. We had just two weeks left and one more session of professional studies and then we were deemed to be qualified teachers (and allowed to teach PE unsupervised). Qualified maybe, but prepared we were not.

### **1.3 In-service Experiences: a personal tale**

The second story is about me and my early experiences of teaching PE. My starting point is the final sentence of the first story: 'Qualified maybe, but prepared we were not'.

Upon entering the teaching profession, I was worried about teaching some areas of PE. I had not considered pupils' learning in PE and I had no confidence in my abilities. The first job I successfully applied for was for a position as a year 4 class teacher with responsibility for co-ordinating PE. To prove my worth as a PE 'specialist', it would not have been unreasonable to expect me to have had some training above and beyond non-specialist PE teachers and even some additional experience. This was not the case. I turned up to the interview with plenty of enthusiasm and some knowledge of netball, hockey, athletics and swimming. I had no specialist training and no experience of teaching PE. In fact, I had never even taught a PE lesson without the supervision of my mentor teacher. Having taught a total of 9 (supervised) lessons of PE, I was deemed knowledgeable enough to lead this curriculum area and guide an experienced staff. I can't help thinking that I was offered the job just because I was enthusiastic, and more importantly, had mentioned

my willingness to run some lunchtime clubs and arrange inter-school matches. Interestingly, the school already had a PE specialist; someone who had trained as a primary PE specialist and had experience co-ordinating PE within the school, but she had changed her role from PE co-ordinator to science co-ordinator - a core subject.

I may have painted a negative picture of my ability to teach PE, but this was not a reflection of my enthusiasm for PE. I had enjoyed PE as a child, but teaching PE was a different matter. The children's behaviour seemed worse outside of the classroom, the resources were limited, safety was a nightmare, it was too cold (or too hot), it rained, the stage was up in the hall, there were tears, there were missing PE kits. I can't claim to have taught many effective lessons to my own class, yet I was expected to lead the entire staff in their teaching. I was confident that despite all these problems, I would be able to teach reasonable games and athletics lessons but where should I start with gymnastics and dance? I would certainly argue that my lessons in these areas had little impact on the children's skill development; we often ended up ignoring the lesson plan and played dodge ball instead, or we went back to the classroom early because the children had 'forgotten' how to listen.

Reflecting on my own experiences, two things concern me. Firstly, I was seen as acceptably qualified and experienced to lead the school in all areas of PE, but would I have been employed to co-ordinate literacy or numeracy without the appropriate A-level, degree or specialist training? Secondly if I, someone who enjoyed participating in a range of sports, was struggling to teach PE, how would other Newly Qualified Teachers and inexperienced teachers be coping? How would someone without a love of sports, without any enthusiasm for PE and without the positive experiences I have had be able to teach PE effectively? One answer to these questions might be in-service training or professional development. However, in my two years as a teacher and despite being the PE co-ordinator, I was only offered one course related to PE and this was focussed on assessment. It did not help me to teach PE. Despite identifying in all my NQT meetings and then in all my performance management meetings that I needed more help, ideas and experience in order to teach gym, dance, football and rugby, I was not offered any courses. In fact, although I can remember a few sport-specific courses being advertised, funds were not made available for me to attend them.



In summarising the two stories, I would argue that my experiences of teaching PE have been largely negative and the quality of my PE teaching limited because I have not been trained to do the job properly. My experiences are not unique, as the following section, rooted in the PE and PE-CPD research literature will illustrate.

#### 1.4 Wider Context for the Research

A literature review conducted at the start of this research in 2001 identified PE as a low-status subject (Armour & Jones, 1998; Hardman & Marshall, 2001). This was the situation I experienced as a teacher and as I embarked upon this research. Writing in 2002, Wright illustrates some of the problems facing primary school teachers who are:

*“responsible for teaching all other aspects of the primary school curriculum and who may not have any special expertise in PE. The amount of training she has received will almost certainly have been limited... To achieve this, she may only have one thirty minute lesson a week, providing it is not the school play, the school assembly does not go on too long, and the weather is kind. In short, it looks like mission impossible” (p.37).*

Inadequate training in PE, it would seem, stretches beyond my own experiences and is a problem common to many graduate teachers:

*“Most primary initial teacher training is considered inadequate (PE has less than half the time available 10 years ago) in preparing students to teach physical education. Some primary trainee teachers have less than 8 hours training in how to teach physical education with post-graduate trainees on average doing 23 hours and undergraduates 32 hours” (Hardman & Marshall, 2001, p. 7).*

In agreement with this, Warburton (2001) and Morgan (1997), for example, argue that more time should be given to training primary PE teachers, and Wright (2002) argues: *“The training of primary school students in the teaching of PE can often amount to a little more than a token gesture” (p.38).* The situation for newly qualified teachers is illustrated by Smith and Ingersoll (2004) who sympathise: *“critics have long assailed teaching as an occupation that ‘canibalizes its young’ and in which the initiation of new teachers is akin to a ‘sink or swim’, ‘trial by fire’, or ‘boot camp’ experience” (p. 682).* It would seem I was not alone.

Insufficient initial training is not the only problem facing PE. Initiatives, such as the national numeracy strategy and the national literacy strategy (core subjects) have

meant there is less time available in the school day for foundation subjects like PE (Gillard, 1998). Wright (2002) points out that:

*“several surveys have shown that since the statutory requirement of the numeracy and literacy hours, the time given to PE has been drastically reduced. Speednet (2000) for example, claims that more than half a million hours have been lost in primary schools to make way for literacy and numeracy work” (p. 37).*

This problem is confirmed by Hardman and Marshall (2001) who state:

*“many primary schools have suffered reduced time for physical education by up to 60 minutes per week during the 1998-99 alone, resulting in insufficient time in some schools to deliver the national curriculum” (Hardman & Marshall, 2001, p. 3).*

Thus, a lack of training in PE, coupled with PE’s low status as a national curriculum subject provided a less than favourable situation for me as an NQT responsible for PE. My personal experience as a primary teacher of PE left me with the impression that PE-CPD needed to be more frequent, more available and more focused.

The research noted above, which was applicable at the time I qualified as teacher and when I started this study, may, however, be outdated as I near completion. Some significant developments have occurred within PE since 2002. Of these, the School Sport Partnership (SSP) and the Physical Education, School Sport and Club Links (PESSCL) Strategy have helped to improve the situation in primary PE. These schemes will be discussed in more detail in the next chapter, but some key findings will be presented here to illustrate these improvements. A recent report undertaken to evaluate the SSP scheme (IYS, 2005) found that:

- The School Sport Partnership had an *“impact on the quality of PE and sport teaching in primary schools” (p. 5).*
- *“The programme of CPD for PLTs<sup>1</sup> and primary school staff has had a substantial impact in increasing the confidence, knowledge and skills of primary school staff and improving the range of PE and sport available to primary school pupils” (p. 5).*

---

<sup>1</sup> Primary Link Tutors are primary school teachers who liaise with other key members of the school sport partnership.



- Primary Link Teachers believed there had been an increase in the quality of PE curriculum provision, the range of activities and the time allocated to PE.

Whilst these findings are encouraging, a report for the PESSCL strategy (DFES, 2004) was less complimentary. Government recommendations state that pupils should be engaged in at least 2 hours of quality PE or sport provision per week. The report revealed that a number of schools were falling short of this target. For example, approximately 50% of primary pupils do not receive this and this number increases to 62.5% when KS1 (years 1 and 2) are considered alone. The report found that pupils in years 1 and 2 did receive an average of 92 minutes per week and the average time spent on PE within the curriculum for primary pupils was 100 minutes.

Thus, the context for this research is complex and evolving. Whilst the status of PE would appear to be improving and CPD opportunities for some teachers increasing as a result of the SSP, a legacy of under-trained, unconfident primary (PE) teachers remains, suggesting that there is an overwhelming need for effective CPD. Clearly there are issues centred on pre-service training that also need to be considered, but these are not the focus of this research. Improving the quality of CPD provision has been linked to school improvement (DFEE, 2000; McRae et al, 2000; Cochran Smith, 2000) and enhanced pupil learning (Day, 1999; Craft, 1996). This research, therefore, sought to find out what form CPD should take if it is to support primary teachers to teach PE safely, confidently and effectively.

Although I started this research with some vague ideas about the best way to provide PE-CPD in primary schools, the literature review on learning and particularly on 'effective' CPD opened up a range of new possibilities. Informal learning and collaborative professional learning (CPL) within productive Communities of Practice (Wenger, 1998) were recurring themes through the literature. Thus, personal experience, in combination with international CPD research provided the backdrop for the research questions and subsequent fieldwork design.

## 1.5 The Research Questions

Primary research question:

Can Collaborative Professional Learning (CPL) be employed as an effective strategy to support and enhance teachers' learning in primary PE in two case study schools?

Secondary research questions:

- (i) What does the international research literature on CPD tell us about teacher learning and about effective CPD?
- (ii) What are the current and most common learning strategies used in primary PE-CPD and what are their historical origins?
- (iii) How do teachers in two case study primary schools teach PE and why do they teach it that way?
- (iv) Could PE-CPD be effective for these teachers if designed around the principles of collaborative professional learning situated within a Community of Practice?

In order to address these questions, the research utilised a number of research methods. Firstly an extensive literature review was conducted to explain the ways in which PE-CPD has been delivered to primary school teachers, both historically and more recently. Secondly, a review of the CPD literature was carried out to establish how effective CPD can be provided for teachers, and this drew on social constructivist learning theory and explored the potential of CPL. The fieldwork phase of the research employed interviews and questionnaires in two case study schools to identify how these primary teachers teach and learn within PE. The second phase of the fieldwork involved an exploration of the potential of CPL as a strategy for CPD within primary PE. Drawing on the knowledge gained from the research to this point, a model of CPD was designed that provided instruction, resources and equipment for teachers in the two case study schools. This was based upon a unit of athletics and drew upon constructivist learning principles and encouraged the use of CPL. The impact of this was measured using questionnaires, and in one school, lesson observations. The data were analysed using an adapted method of grounded theory, based on Charmaz's (2000) constructivist grounded theory and this enabled the primary research question to be answered.



## 1.6 Effective CPD?

The notion of ‘effectiveness’ is central to this research; however, it soon became clear that defining effective CPD was not a straightforward task. At a broad level, effective CPD could be defined as “*an activity that increases the skills, knowledge or understanding of teachers, and their effectiveness in schools*” (DFEE, 2000, p.3). At a more specific level, there is agreement in the literature that some approaches to CPD are more likely to be effective than others. For example, it could be argued that effective CPD has some or all of the following characteristics:

- Active (Day, 1999)
- Reflective (Hay McBer, 2000)
- Situated (Lave & Wenger, 1991)
- Ongoing (Day, 1999; Garet et al., 2001)
- Collaborative (Smyth, 1999; Hixson & Tinzman, 1990; King & Newmann, 2001)

These issues are explored in depth in chapter two but the key point to be made is that this research has a dynamic purpose: it is about enhancing practice, not only at a generic level but specifically for the case study teachers (and hence the children) who were engaged in the research. As a teacher and researcher, my loyalties were often divided and whilst my experiences as a teacher were useful, my loyalties to teaching, teachers and pupils did have an impact upon this research. This problem is identified by Labaree (2003) and discussed in the reflexivity section of the methodology chapter.

## 1.7 Measuring the Impact of CPD

Measuring the impact of CPD, however, is troublesome (Powell, Terrell, Furey & Scott-Evans, 2003; Burchell, Dyson & Rees, 2002), and in order to answer the research questions, certain issues had to be considered. An understanding of these issues is helpful and informed the design of this research. Guskey & Sparks (2002) illustrate this problem:

*While those responsible for professional development have generally assumed a strong and direct relationship between professional development for educators and improvements in student learning, few have been able to describe the precise nature of that relationship (Guskey & Sparks, 2002, p.1).*

Guskey & Sparks propose three areas of professional development that could be measured: content characteristics, process variables and context characteristics. These refer to ‘what’ is learnt during a professional development activity, ‘how’ it is learnt and finally ‘the who, when, where and why,’ referring to who is involved, when it takes place, where it takes place and why. The link between teachers’ learning and students’ learning is unclear and it is difficult to state with any confidence that one has led to the other. Student learning could be measured through standard assessment procedures or through ratings of attitude towards certain aspects of school such as enjoyment of lessons or willingness to do homework. Furthermore, these improvements should be sustained over time. Gusky and Sparks (2002) argue that:

*Professional development efforts that do not take into consideration the complex nature of the relationship between professional development and improvements in student learning, or the various factors that impinge on that relationship, are unlikely to succeed (p. 9).*

Further problems are apparent. Not only are the desired outcomes of a professional development activity sometimes unclear, the ways to measure them are also questionable. Burchell et al (2002), for example, argue that self-reports from teachers could be used to evaluate an activity but they identify problems with this. For example, one teacher in their research commented:

*“After a period of time it’s difficult to recall the specific impact of CPD (in my case my MA) because the most important or meaningful developments/changes in practice have been integrated into ‘normal’ practice – it becomes difficult to recall ‘how we did it before’!!” (Burchell, Dyson & Rees, 2002, p.225).*

In the context of this research, CPD was judged to be effective through the use of self-reports and lesson observations. A reported or observed change in practice or increased confidence to teach an aspect of PE formed the main criteria upon which effectiveness was measured.

## 1.8 Thesis Structure

An extensive literature review was undertaken at the beginning of the research period. Chapters 2 and 3, therefore, describe the evolution of CPD since the 19<sup>th</sup> century, both generally and in primary PE. There is some agreement in the research literature about the characteristics of “effective” CPD and one aspect of this, CPL within a framework of constructivist learning is analysed in detail. This literature review provided a broad



overview of PE and PE-CPD in schools and it informed the design of the fieldwork that was planned and conducted in schools.

Chapter 4 describes the methodological approach adopted in this research and the methods used to answer the research questions. A case study approach that utilised some of the key features of action research was the broad strategy, and interviews, observations/field-notes and questionnaires were used to assess the state of PE and the teachers' PE and CPD experiences in two primary schools. As the research progressed and an understanding of the schools and PE was gained, it was possible to plan for two models of CPD to be introduced into the schools. These were based on the principles of constructivist learning and focused upon providing school-based collaborative professional learning opportunities structured around athletics CPD.

Chapters 5 and 6 present the data as themed descriptions. At this stage, the data are described and preliminary themes discussed. The schools and the teachers are described first of all to present a picture of the case study schools and to contextualise the later analysis. The lesson observations are described to create an overall picture of how PE was being taught in these schools and to identify some common problems. The teachers' pre-service and in-service experiences are then presented and their opinions of the CPD they had received to date in their careers are discussed. Finally, the two models of CPD, which were designed specifically for each of the two case study schools to encourage CPL are described and some preliminary themes analysed.

In chapter 7, connections are made between the research literature and the fieldwork findings. The collaborations that occurred within the two case study schools are described and explained and then contrasted with the collaborations that occurred in Wenger's (1998) original study. Three issues are identified as reasons for the lack of collaboration during the athletics CPD: the lack of PE knowledge in schools, the lack of an existing Community of Practice in PE and the degree of structure needed for Communities of Practice to form.

The final chapter draws on the conclusions from chapter 7 to propose some areas for future research. Limitations of the research are discussed and some recommendations are made.

## Chapter 2: Review of the Literature

### 2.1 Introduction

This chapter provides an overview of the CPD research literature. CPD is defined, both conceptually and in practice, and an analysis is undertaken of the ways in which CPD can be designed to be more effective for teachers' and pupils' learning. Social constructivism is discussed in this chapter because it underpins a number of approaches to professional development, which the literature defines as effective. Of these, informal and collaborative learning are analysed at a deeper level.

### 2.2 CPD: a definition

Continuing Professional Development (CPD) can be defined in a number of ways. A useful starting point is to analyse the elements of the term CPD. 'Continuing' suggests that the process of becoming a professional is on-going throughout a person's career; 'Professional' suggests that the person has undergone some form of training and has the freedom to make autonomous decisions; and 'Development' refers to the development of skills and knowledge that a professional will gain throughout a career. Each of these elements is reviewed in more detail below.

#### 2.2.1 Continuing

For professional development to be most effective, it needs to be continuous. Learning to teach is a process that starts with initial teacher training and continues throughout a teacher's career. This concept of ongoing CPD and lifelong learning within the professions is endorsed by a number of authors who argue that the progression from novice to expert can take a number of years. Berliner (2001) for example, proposed that it takes 5 or more years of practice to become an expert, whilst Cheetham & Chivers (2001) found that a range of professionals felt it took over 6 years to feel fully competent. Ward & O'Sullivan (1998) describe this journey from novice to expert as repeated practice over time. If it does take at least five years to progress from a novice teacher to an expert teacher, this does suggest an on-going CPD package needs to be in place for every teacher. Moreover, even after a number of years in the classroom and many opportunities for professional development, Day (2002) warns that learning should continue:



*“There are problems, also, in a changing world, with seeing the acquisition of expertise as the end of the learning journey. Becoming an expert does not mean that learning ends – hence the importance of maintaining the ability to be a lifelong inquirer. Expert teachers are those who retain their ability to be self-conscious about their teaching and are constantly aware of the learning possibilities inherent in each teaching episode and individual interaction” (p.424).*

Steffy, Wolfe, Pasch & Enz (2000) add to this by identifying The Life Cycle of the Career Teacher Model, which identifies 6 progressive stages in a teacher’s career: Novice, Apprentice, Professional, Expert, Distinguished and Emeritus. This staged model is useful as it encourages teachers to view themselves as continuous learners with the capacity to improve their skills and knowledge year on year.

### 2.2.2 Professional

There is some debate, however, about whether teaching is classified as a profession with some authors preferring to refer to teaching as a semi-profession (Etzioni, 1969). Thus it may be worth clarifying how the term professional is understood within the teaching profession and in relation to this research. Day (1999) utilises the work of Larsson (1977) and Talbert & McLaughlin (1994) to argue that professionals can be distinguished from other groups because they have:

*“i) a specialised knowledge base – technical culture; ii) commitment to meeting client needs – service ethic; iii) strong collective identity – professional commitment; and iv) collegial as against bureaucratic control over practice and professional standards – professional autonomy” (p5).*

Taking this definition, it could be argued that teachers do have a specialised knowledge base and a commitment to meeting client needs but lack full control over what and how they teach and thus do not have full professional autonomy. In a study by Helsby, Knight, McCulloch, Saunders and Warburton (1997) teachers also made a distinction between *being* a professional and *behaving* as a professional. Being a professional refers to the training and qualifications necessary to be a teacher; it also requires the observance of particular standards and some degree of professional autonomy which, in turn, commands public respect and status. This differs from the notion of behaving as a professional, which refers more to the dedication and commitment required to do the job, and to behaving professionally with work colleagues, students, parents and external agencies. It could, therefore, be argued that



teachers perceive themselves as *behaving* as professionals but do not necessarily fulfil all the requirements of *being* a professional (Helsby, 1995).

Whilst Day (1999) and Helsby et. al (1997) might argue that teaching is a profession, or at the very least a semi-profession, others such as Pluckrose (1987) have argued that teaching is not a profession, describing this notion as a ‘myth’. Four reasons are given in support of this position:

1. Pluckrose argues that teachers’ knowledge is not necessarily exclusive and the increased parental involvement in schools has reduced teachers’ authority:

*“Professional implies the possession of specialist knowledge and authority. The professional person has knowledge, and the experience of applying it, which is not possessed by the great majority of the population”.* (p. 72)

2. A second problem is identifying who the client is. Is it the child, the parent or society? Pluckrose argues that the client is society and therefore difficult to please.

3. In teaching, there is no single, unified professional body, which oversees its members’ professional interests:

*“A Profession has jurisdiction over its members. Teachers have very little authority over what they do or how they do it. There is no formally established council equivalent, for example, to the British Medical or the Law Society, which controls entry to teaching...Instead of gaining entry by qualification to a professional body, teachers, on becoming qualified, may join (if they so wish) one of six unions. Each union follows its own policy, makes its own rules and regulations (and tends to bicker with the other five). As a consequence there is no one body which speaks for teachers or presents a considered and constructive view of education...There are comparatively few doctors of medicine, barristers, solicitors, or clerks in holy orders. By comparison there are many, many teachers. A profession tends to have few members, each member possessing esoteric knowledge which sets him or her apart from their peers”.* (p. 73-74).

4. There are a lack of professional standards in the teaching profession:

*“A profession has defined and enforceable ethical standards. Apart from respect for the law, there are no defined standards which teachers have to follow”* (p. 75).

Since Pluckrose’s argument in 1987, ‘standards’ have been introduced to the teaching profession. These are introduced in teacher training and must continue to be demonstrated throughout a teacher’s career (Smith & Reading, 2001). These standards



cover four areas; knowledge and understanding; planning, teaching and class management; monitoring, assessment, recording, reporting and accountability; and other professional requirements. In addition, The Office for Standards in Education (OFSTED) aims to enforce these standards and it could, therefore, be argued that teachers do now comply with Pluckrose's fourth defining characteristic of a profession.

It is difficult to conclude whether teaching is a 'true' profession or not. Helsby (1995) in an earlier study of teachers' perceptions of their own professionalism concludes that:

*In terms of 'being a professional', teachers see themselves as meeting most of the identified requirements, but as being denied some of the autonomy, trust and public recognition normally accorded to professional groups. In terms of 'behaving professionally', teachers believe that they measure up quite well to the high standards that they impose upon themselves. However, there seems to be some uncertainty as to whether professional behaviour involves being in control and planning, or simply following instructions, however misguided" (p. 329).*

It could be argued then, that teachers may have less autonomy than some other professionals but they do appear to perceive themselves as behaving as professionals and, to a greater or lesser extent, they do conform to the 4 characteristics proposed by Pluckrose (1987). It could thus be argued that they are professionals and are therefore in need of professional development. As Brunetti (1998) argues: "*a well developed, readily available continuing education program is the hallmark of a true profession*" (p. 62). It is possible that with such a programme of high quality, ongoing CPD, teaching could be viewed as a profession. Indeed, Falk (2001) argues that 'professional learning is *the* job of teaching' (p.137) and, as such, teachers need to view themselves as professional learners rather than viewing professional development as an extra task to fulfil.

### 2.2.3 Development

The purpose of CPD is to provide professionals with the skills and knowledge they will need to be successful members of a profession (Hoyle, 1980; Day, 1999). The skills and knowledge required to be a teacher are illustrated by the standards provided for trainee teachers and enforced by OFSTED (as mentioned above): knowledge and



understanding; planning, teaching and class management; monitoring, assessment, recording, reporting and accountability; and other professional requirements. Knowledge about teaching is, therefore, wider than just knowing about the curriculum subject or subjects that are taught; it also includes knowledge of a variety of professional issues, as well as knowing how to plan for lessons and assess pupils. Huberman (1983) describes this knowledge as ‘craft knowledge’ and recognises it as an important area for development. Garet et al (2001) extend this understanding by stating:

*Some activities are intended primarily to improve teachers’ knowledge of subject-matter content; some are designed to improve general pedagogy or teaching practices, such as classroom management, lesson planning, or grouping methods; and some are intended to improve what Shulman (1987) has termed ‘pedagogical content knowledge’ – teaching practices in specific context domains, such as teaching multi-digit addition in elementary mathematics or forces and motion in physics (p. 923).*

Professional development, therefore, needs to address all these areas of teachers’ knowledge and make attempts to develop teachers’ knowledge, understanding and skills in all aspects of teaching.

### **2.3 CPD: what it is in practice**

Having explained the elements of the term CPD, the next task is to explain CPD in practice. Craft (1996) describes professional development as “*all types of professional learning undertaken by teachers beyond the initial point of training*” (p.6), whilst the DFEE (2001) defines CPD as “*an activity that increases the skills, knowledge or understanding of teachers, and their effectiveness in schools*” (p.3).

Day (1999) extends these definitions:

*“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 renew and extend their commitment as change agents to the moral purpose 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” (p4).*

These definitions give an understanding of what CPD is in practice as well as identifying its purpose. The next step in unravelling CPD as a practice is to establish what activities can be classed as CPD. CPD covers a wide variety of activities from



reading relevant newspaper and magazine articles or discussing an issue with a colleague to attending a course or In-service Education and Training (INSET) day. Lieberman (1995) extends this understanding by identifying ‘a list of practices which encourage development’. She identifies three settings in which teachers’ learning may occur:

1. Direct Teaching (through, for example, conferences, courses, work-shops, consultations)
2. Learning in school (through, for example, peer coaching, critical friends, quality review, appraisal, action research, portfolio assessment, working on tasks together)
3. Learning out of the classroom (through, for example, reform networks, school-university partnerships, professional development centre, subject networks and informal groups) (cited in Day, 1999, p. 3).

Day (1999) adds a fourth setting; that of learning in the classroom, through for example, student response. These four settings provide a comprehensive list of possible learning opportunities for teachers: some are formal, some are informal; some are for the benefit of the individual and some are for the benefit of the ‘system’; some of these methods may work for some teachers but not for others. Thus it can be argued that CPD needs to be ‘multi-dimensional’, incorporating different forms of instruction and learning opportunities.

At this stage of the discussion, it can be seen that CPD is more than an ‘event’ such as a course or a lesson observation or incorporating an LEA or government initiative into teaching, or learning a new skill or piece of knowledge. CPD could be better described as a mixture of courses, meetings, experiences and knowledge acquisition. It is a process that starts with a teacher’s own experience of school, continues into teacher training and extends to the end of the teacher’s career. Guskey (1994) argues that ‘an optimal mix’ of CPD needs to be found for each teacher and school:

*“There is no one right answer or one best way. Rather, there are a multitude of ways, all adapted to the complex and dynamic characteristics of specific contexts. Success therefore, rests in finding the optimal mix of process elements and technologies that can then be carefully, sensibly, and thoughtfully applied in a particular setting” (Guskey, 1994, p.10).*



To complicate the picture further, there is also a wide range of different CPD activities. One reason that CPD needs to be multi-dimensional is that each different type of CPD has associated advantages and disadvantages. In order to discuss the possible advantages and disadvantages of different kinds of CPD, it will be easier to divide CPD into 2 categories: formal learning, which includes off-site courses and on-site ‘meetings’, and informal learning, which includes individual and collaborative learning experiences. In so doing, the main elements of CPD in practice can be analysed and discussed.

## 2.4 Formal Learning

Formal learning is described by Colley, Hodkinson & Malcom (2003) as:

*“high status propositional knowledge with learning processes centred upon teaching or instruction, and is located within specialist educational institutions, such as schools, colleges or universities” (p. 5).*

This includes deliberate and planned attempts to learn and is usually led by an instructor. Thus, courses, conferences and staff meetings are all forms of formal learning.

### 2.4.1 Off-site courses

Off-site courses have been a very popular and dominant form of CPD. Reasons for this include: large numbers of teachers can be taught new skills, ideas and strategies at one time; it is relatively cheap to run; and ideas can be disseminated to other members of staff not attending the course. Unfortunately, because courses cater for large numbers of teachers, the information conveyed can be too generalised and may be irrelevant to the needs of many teachers; people learn in different ways and Cheetham & Chivers (2001) warn against ‘one-size-fits all professional development’. Furthermore, they warn that transfer of knowledge from a course into a school may be difficult because the contexts in school differ to those on a course. Moreover, there are few opportunities for follow-up sessions, so much of what teachers learn is never reinforced. This is supported by Armour (2001) who warns that some courses may be inappropriate, poorly planned, too long and delivered by people who are unfamiliar with the way schools are run. On the other hand, such courses can provide opportunities for sharing ideas. Off-site courses should not be discounted, therefore,

but they do need to be carefully planned and used in conjunction with a variety of other forms of CPD. Courses may be more appropriate for certain purposes such as teaching about a new policy or initiative (Kennedy, 2002) but they should not be relied upon as the sole means of provision:

*In the view of traditional staff development, workshops and conferences count, but authentic opportunities to learn from and with colleagues do not. Traditional venues of large group instruction outside the school are taken as almost the only places where adult learning goes on, whereas learning inside of school as an integral part of school life, or as part of a larger network of people struggling with teaching and learning problems, is neither supported nor taken seriously. The conventional view of staff development as a transferable package of knowledge to be distributed to teachers in bite-sized pieces needs radical transformation and rethinking (Lieberman, 1995, p. 591).*

#### 2.4.2 On-site 'meetings'

*"Moves towards school-based INSET and professional development arose out of concerns with the limitations of the course-led model of delivery"* (Craft, 1996, p. 14).

On-site meetings include activities that take place within a school such as in-school closure days, or organised staff or planning meetings. This form of CPD is valuable because it focuses on specific school issues (Craft, 1996). Policies, development plans and the curriculum could be issues for discussion in staff meetings, whereas school closure days may be used for staff training and discussions about LEA or government initiatives. The major criticism of this form of CPD is that it addresses the needs of the school or LEA and is rather routine and 'insular' (Craft, 1996). In a similar way to off-site courses, this mode of CPD can be accused of being too general for individual teachers.

### **2.5 Informal Learning**

Formal training thus has its critics and, used in isolation from other forms of learning, could be detrimental to teachers' development. Teachers in one study (WestEd, 2000), for example:

*"repeatedly stressed that while formal training sets the stage, it's really through more informal modes that new ideas take root, spread, and become part of daily practice, and that the crucial habits of collegial sharing become ingrained" (p.19).*

Indeed, the WestEd report illustrates how formal learning opportunities helped to *"strengthen teachers' content knowledge, introduce them to new instructional*

*approaches, and explain the theories or principles underlying them*” (p. 20), thus providing teachers with an opportunity to “*come away with a shared set of ideas... and a common understanding of problems to grapple with as a team – and they discover all the while a natural focus for beginning a collaboration*” (p. 20). Informal learning would appear to be a useful vehicle for teacher development. It is less ‘explicit’ or obvious than the learning described in the previous section (Colley, Hodgkinson & Malcom, 2003). Whilst the difference between formal and informal learning is relatively clear, the distinction between informal and non-formal learning is less clear and it is helpful to clarify what is meant here. Colley et al (2003) explain:

*“the concepts of non-formal and informal learning are almost invariably referred to ‘in one breath’... there is little indication outside the classification itself as to how they might be distinguished from, or interrelate with, each other” (P. 15).*

Informal learning for the purposes of this research includes any learning that is not classified as formal. Kennedy (2002) utilises Huberman’s work (1983) to produce a list of craft sources of professional development and this illustrates the kinds of learning that are categorised as ‘informal’ within this research:

- Experience as a teacher
- Spontaneous ideas
- Experience as a child
- Experience as a parent
- How I’d feel if it were me
- Own materials
- Fads
- Miscellaneous other sources

Cheetham & Chivers (2001) extend this understanding of informal learning in their research, titled: ‘informal learning amongst people working in the professions’. They identified a range of activities that could be classed as informal learning. Of particular relevance are:

- On the job learning
- Working alongside more experienced colleagues
- Working as part of a team
- Self-analysis or reflection
- Learning from clients/customers/patients etc.
- Networking with others doing similar work
- Learning through teaching / training others
- Support from a mentor of some kind
- Use of role-models



- Pre-entry experience (p.271)

These examples indicate how diverse the category of informal learning is. Indeed, when analysed at this level, the opportunities for learning from everyday occurrences and interactions become clear. Of these, some would argue that ‘professional conversations’ have proved invaluable:

*“Because teacher learning is so ingrained in their schools’ culture, an opportunity for conversation can spontaneously turn into an occasion for learning. As one teacher[from the study] said, ‘Every conversation between two professionals is professional development. I think it’s one of the main reasons this school has enjoyed so much success’. But this kind of professional culture developed only over time through the deliberate cultivation of collaborative structures at the school” (WestEd, 2000, p. 22).*

Furthermore, there may be opportunities for learning that occur outside of the workplace and that are not deliberately initiated:

*Fernandez-Balboa (1998) offers a clear example of how his pedagogy is the result not only of his own conscious effort to forge it, but also of the multiple incidents, accidents, and relationships throughout his life” (Armour, 2001, p.6).*

Thus professional development should be conceptualised broadly, and considering informal sources of learning can help to ensure that all experiences are reflected upon and learnt from:

*From this perspective, teaching can be understood as a process of making a myriad of meaningful connections, not only to and between subject matter, not only to and between methods but, as important (if not more) to and between other persons and other facets of life (Armour, 2001, p.7)*

Williams (2003) provides further evidence of the usefulness of informal learning as a form of professional development. Her research identifies how NQTs learn within their first year of teaching and reveals that:

*While formal learning opportunities are clearly valued by NQTs and their induction tutors, the informal collaborative learning which characterises much of the NQT’s experience is equally valued and is likely to be achieved through non-formal learning... Encouraging new teachers to become aware of their non-formal and unplanned learning is likely to be as important as ensuring that formal learning needs are met. Equally, developing induction tutors’ understanding of non-formal learning, including distinguishing between developmental informal discussion and non-developmental ‘chat’, and of how best to create the circumstances in which such learning can be maximised, is critical to further improvement in induction practice (Williams, 2003, p. 217)*

Informal learning is clearly useful to teachers and is a helpful aspect of professional development. Two different types of informal learning will now be discussed: individual and collaborative learning experiences. The latter will be discussed in more detail later in this chapter.

### 2.5.1 Individual Learning Experiences

Some CPD is not planned or enforced by the head teacher, senior management, LEA or government. Teachers may learn through experience, reflection, reading and observation. The advantage of this personal learning is that it is relevant to the teacher's needs and probably occurs as a result of needing to teach something new. The main drawback is that this sort of knowledge can remain tacit and inaccessible to the teacher. It is for this reason that collaborative learning experiences can be particularly beneficial.

### 2.5.2 Collaborative Learning Experiences

There is much in the CPD literature to support the use of reflection and collaboration as a strategy for CPD (e.g. Miller, 1988; Smyth, 1999; Sandholtz, 2000). Reflection and collaboration provide opportunities to reflect on what has been learnt and to collaborate with other teachers in order to develop and share ideas:

*“Knowledge is not private or closeted – individuals take pride in what they know, and it is a central part of the way the school operates, swapping and exchanging ideas that work” (Smyth, 1999, P.73).*

Whilst the benefits of collaborative learning are widely acknowledged, there are currently few structures to support it in schools. Two types of collaboration include: peer coaching and team teaching (McQueen, 2001). Peer coaching involves teachers working together, reflecting upon their practice, solving problems, sharing ideas and conducting classroom research. Team teaching involves teaching and planning lessons together, and this provides an opportunity for new pedagogical practices to be shared and understood in the context of individual schools.

Although the benefits of informal collaborations are clear, some drawbacks to this type of learning have been identified by Quicke (1999), for example:

*Collaboration can be limited to the safe areas of teachers' work and thus foster complacency and reinforce rather than radically change existing practice. It*

*can suppress individuality and lead to conformity and groupthink... it can be used as an administrative device which paradoxically can produce a situation where teachers do not want to collaborate. It can be used as a mechanism for co-opting teachers and securing their compliance to various reforms of a dubious nature from an educational viewpoint” (P. 55).*

The concept of collaborative learning will be revisited later in this chapter and utilised extensively throughout this research. Summarising the discussion to this point, the different types of CPD available have been outlined and some of the advantages and drawbacks to these identified. A deeper analysis of the features of effective professional development will now be undertaken.

## **2.6 Effective CPD**

Some of the advantages and disadvantages of four approaches to CPD in practice (off-site courses, on-site ‘meetings’, individual and collaborative learning experiences) have been discussed. As previously mentioned, a multi-dimensional approach to CPD could be advantageous but, in addition, effective CPD is planned for the individual (Harland & Kinder, 1997); it needs to be a process not an event (Pennsylvania Department of Education (PDE), 2000); on-going (Day, 1999) because changes will happen slowly and so ideas need to be re-visited and reinforced; learning must be active (Day, 1999) and the effects rewarding. Furthermore, Good & Weaver’s (2003) findings indicate that many teachers appreciate being given resources that they can use in the classroom and teachers preferred courses where the leader acted as a facilitator rather than an outside expert and when they encouraged collaborative group work and problem solving. In addition, courses are often rated as more effective when course leaders have recent and relevant teaching experience (Lee, 2000). Garet et al (2001) argue that good quality CPD needs to have a ‘sustained duration’ to encourage a depth of coverage and a ‘collective participation’ to encourage discussion, reflection and sustainability.

*“Three core features of professional development activities that have significant positive effects on teachers’ self-reported increases in knowledge and skills and changes in classroom practice: a) focus on content knowledge; b) opportunities for active learning; and c) coherence with other learning activities. It is primarily through these core features that the following structural features significantly affect teacher learning: a) the form of activity (e.g. workshop vs. study group); b) collective participation of teachers from the same school, grade, or subject; and c) the duration of the activity” (p. 916).*



A study of schools displaying ‘model professional development’ (WestEd, 2000) summarises these features, stating that effective professional development:

- *“Focuses on teachers as central to student learning, yet includes all other members of the school community;*
- *Focuses on individual, collegial, and organizational improvement;*
- *Respects and nurtures the intellectual and leadership capacity of teachers, principals, and others in the school community;*
- *Reflects best available research and practice in teaching, learning, and leadership;*
- *Enables teachers to develop further expertise in subject content, teaching strategies, uses of technologies, and other essential elements in teaching to high standards;*
- *Promotes continuous inquiry and improvements embedded in the daily life of schools;*
- *Is planned collaboratively by those who will participate in and facilitate that development;*
- *Requires substantial time and other resources;*
- *Is driven by a coherent long-term plan;*
- *Is evaluated ultimately on the basis of its impact on teacher effectiveness and student learning; and this assessment guides subsequent professional development efforts” (p. 2).*

A more recent study by Cordingley, Bell, Rundell & Evans (2003) identified six features common to successful CPD:

- *Observation with professional dialogue including feedback;*
- *The use of external expertise linked to school-based activity [a finding mirrored in this research, which will be discussed later];*
- *An emphasis on peer support rather than leadership by supervisors;*
- *Scope for teacher participants to identify their own CPD focus;*
- *Processes to encourage, extend and structure professional dialogue;*
- *Processes for sustaining the CPD over time to enable teachers to embed the practices in their own classroom settings (p. 1-2).*

These findings from the CPD literature help reveal the range of issues that must be considered when implementing CPD in schools or delivering CPD to teachers. This is a challenging task as Richardson (2003) and King (2002) indicate:

*“Indeed, most of the staff development that is conducted with K-12 teachers derives from the short-term transmission model; pays no attention to what is already going on in a particular classroom, school, or school district; offers little opportunity for participants to become involved in the conversation; and provides no follow-up. We have been engaged in this form of staff development for years, knowing full well that this approach is not particularly successful” (Richardson, 2003, p.401).*

*“Typical professional development activities represent the antithesis of careful inquiry. These activities tend to be imposed by external authorities without significant input from teachers and rarely sustained or followed-up. Often, professional development is divorced from teachers’ work contexts, and presents material that teachers see as irrelevant to student learning in their specific school settings. Different activities throughout a year or a period of a year tend to lack consistent focus, either for individual teachers or for a school. And, perhaps most importantly, traditional professional development mirrors traditional forms of instruction where the learners, the teachers, are passive. In contrast, professional development that promotes inquiry will involve teachers in determining content and process, will relate specifically to their students, will be sustained and systematic, and will entail active learning that may lead to important changes in beliefs and practices” (King, 2002, p. 244).*

It is undoubtedly a challenging task to consider and include this range of elements and suggestions when designing CPD but the research does suggest that teachers’ learning will be more effective if these features are considered. Considering WestEd’s (2000) contention that teachers all learn in different ways *“both formally and informally, from outside experts, trainers, and from each other”* (p. 19), it would be unwise to favour or exclude specific forms of CPD. Guskey’s (2002) suggestion of an optimal-mix is again a useful consideration.

## **2.7 Effective PE-CPD**

Whilst the general CPD literature provides guidance for effective provision, this research concerns PE-CPD and thus it was necessary to turn to the PE-specific literature. Analysing effective CPD in PE was a challenging task because as Armour & Yelling (2004) state *“There is very little published research evidence available on the professional development experiences of PE teachers in England or elsewhere”* (p.73). The published literature on primary PE-CPD is even more scarce and much of the following section, therefore, relates to secondary PE, although some comparisons can be drawn with primary PE-CPD.

The subject matter in PE is often practical, active and outside of the classroom and this is reflected in the style of CPD course that PE teachers seem to prefer. Teachers in Armour & Yelling’s (2004a) study preferred CPD that was *“hands on and involved them practically in the activity”* (p.80), and when it was:

- *Relevant and applicable;*



- *Able to provide 'ideas' and 'practices'- "essentially, these ideas must be 'workable' and 'ready to use' with key resources and materials distributed at the event" (p.81);*
  - *Delivered by a good presenter;*
  - *Challenging and thought provoking;*
  - *Able to offer time for reflection and collaboration.*
- (From Armour & Yelling, 2004, p. 80-81).*

Teachers also wanted courses to be local so that they did not waste time travelling. This research shows the types of professional development that teachers want and hints at what might be effective in PE and so it is disappointing to find that this is not necessarily what PE teachers have received (Armour, 2001). Some teachers in Armour & Yelling's (2003) and (2004a) studies complained that the courses they attended did not always apply to their specific teaching contexts:

*"One case study teacher commented: some courses refer to PE in the ideal world, e.g. a hockey course on AstroTurf, great – but back at school we've got long grass and a water logged pitch" (Armour & Yelling, 2004, p. 84).*

*"It's ideal so you know there's only a small number of you know kids. Everyone can have a racket and they've got space to work and you've got large groups of kids and only one court. Here that doesn't work so to me it's pointless you know... Or you're doing an activity and you're actually doing it with eight other you know teachers that aren't misbehaving, that aren't you know walking off the place, not listening, and are playing, because you want, because you're there to learn and it's, you know those sort of situations" (Armour & Yelling, 2003, p. 8).*

*"I'd like her to come in, do battle with twenty girls and take them for five, not one lesson, because you can always motivate the group for one lesson and do something" (Armour & Yelling, 2003, p.7).*

These teachers appear to be arguing for situated learning and there is some support for their views in the social constructivist research literature (see the next section for more details). The social constructivist literature identifies that learning is most effective when it is situated, as the quotes above indicate. CPL was also identified as one form of effective CPD. Armour & Yelling (2003) investigated CPL within PE departments in ten case study schools. The teachers identified going into other schools, exchanging ideas, teaching with others and chatting on PE courses as productive collaborations. The authors concluded that in the absence of 'official' CPD, PE teachers fall back on 'unofficial' CPD that is collaborative and school based: *"They seemed to 'endure' many of the courses they attended, whilst compensating for any*



*shortcomings with their unofficial, but ultimately more valuable, CPD” (Armour & Yelling, 2003, p.12).*

## **2.8 Collaborative Professional Learning**

Thus far, the review of CPD literature has highlighted a range of issues associated with CPD as well as identifying how it may be made more effective. One key element in the effectiveness literature is collaborative professional learning, which falls within a framework of social constructivist learning. A brief description and analysis have already been provided but a deeper analysis is included here to provide a practical and theoretical framework for this thesis.

## **2.9 A Theoretical framework for Collaborative Professional Learning.**

The characteristics of effective professional development, as identified earlier are, in many instances, underpinned by constructivist learning theory. CPL is a good example and so the purpose of this section is to locate CPL within a theoretical framework in order to better understand its scope within PE-CPD.

In order to situate CPL within its social constructivist theoretical framework, it is helpful to refer to the three components of CPL: ‘Collaborative’, ‘Professional’ and ‘Learning’.

- To collaborate means to work together for mutual benefit.
- As was noted earlier in this chapter, a professional is someone who has undergone a lengthy training process. It is assumed that this training will provide professionals with expert knowledge and skills, which will allow them to make autonomous decisions. A professional development program is usually in place to support them in their continued learning (e.g. Day, 1999).
- Learning is the result of assimilating new skills or knowledge. Someone can be said to have learnt something if they can perform a new skill or know something new. Learning may occur as a result of many processes; trial and error, perception, observation, modelling, exhortation and instruction (Campbell, 1963).

CPL, then, describes professionals working together, the result of which is the learning of new skills or knowledge by one or more members of the collaborating group (Sandholtz, 2000; Wenger, 1998; Toole & Louis, 2002).

If it is accepted that CPL incorporates these elements, both individually and in combination, the next step in understanding CPL as a concept and exploring its use within professional development, is to locate it within a theoretical framework of learning. Three dominant theories of learning emerge from literature within sociology and psychology: behaviourism, cognitivism and constructivism. In short, behaviourism concerns the way in which a behaviour is learnt through trial and error experiences, cognitivism is concerned with the mind and how it makes sense of the information it receives and constructivism focuses on the ways in which knowledge is constructed and is based on interactions with others and the environment. Social constructivist learning theory, therefore, emphasises a person's active involvement in their own learning and suggests that learning will be more effective when it is active, interactive and authentic. Social constructivism provides a useful alternative to the theories of behaviourism and cognitivism:

*“Behaviourism treats the organism as a black box, cognitive theory recognises the importance of the mind in making sense of the material with which it is presented. Nevertheless it presupposes that the role of the learner is primarily to assimilate whatever the teacher presents. Constructivism suggests that the learner is much more actively involved in a joint enterprise with the teacher in creating new meanings” (Atherton, 2001, p1).*

The argument here is that constructivism provides an appropriate framework for analysing CPL, for understanding how CPL might function and why it is recommended in the CPD literature. A deeper analysis of constructivism and constructivist learning provides a framework for understanding the potential of CPL as an effective element within CPD.

Constructivism has its roots in child-centred, progressive pedagogic ideologies of educationalists such as John Dewey, Jerome Bruner and Jean Piaget. These progressive ideologies can be seen to contain elements of what is now known as constructivism. Constructivism concerns the way in which people construct meanings in their world. It is argued that through experience, reflection, interaction and discussion they can construct understandings and knowledge. The idea is that learners actively construct or build up new knowledge rather than just absorbing information from a teacher or text. A constructivist learning environment, therefore, promotes the idea that learning should be active:



*Constructivist approaches emphasise that learning is an active process in which the individual seeks out information in relation to the task at hand and the environmental conditions prevailing at any given time, and tests out his or her own capabilities within the context formed by the task and the environment (Kirk & MacDonald, 1998, p.376).*

The idea that learning should be active is also supported by Bruner (1968, 1969, 1974). One example of this is his proposed notion of ‘discovery learning’ and his suggestions for teaching abstract concepts through concrete examples. For example, by placing beans in columns and rows, children are able to understand the concept of prime numbers:

*“In mathematical factoring, to start with as an example, the concept of prime numbers appears to be more readily grasped when the child, through construction, discovers that certain handfuls of beans cannot be laid out in completed rows and columns. Such quantities have either to be laid out in single file or in an incomplete row – column design in which there is always one extra or one too few to fill the pattern. These patterns, the child learns, happen to be called prime” (Bruner, 1974, p. 428).*

It is evident from Bruner’s suggestions that teaching and learning strategies need to be adapted in order to accommodate constructivist ideals. If learning is more effective when it is active and interactive, then opportunities need to be made available to allow this. Constructivism is thus in conflict with more traditional, didactic methods of instruction. In relation to CPL, this is an important point as it provides some theoretical explanation for the benefits of CPL in comparison with professional development that is based on more traditional, instructional techniques. Kirk & Macdonald (1998) argue that constructivist learning is multidimensional. In order not to rule out certain teaching methods, it could be beneficial to view learning as being on a continuum with instructional/didactic techniques at one extreme and constructivist methods at the other. Knuth & Cunningham (1993) suggest that there is a difference of opinion even within constructivism:

*“For some, knowledge construction requires little more than the addition of coaching or help systems to traditional instructional strategies. For others who take a more radical position, knowledge construction implies that each of us knows the world in a different way, that there is therefore no shared objective world to teach about, and that consequently instructional analysis and prescription make no difference to what and how students learn... Only at their extremes are the positions of constructivist and instructional designers truly adversarial” (p. 189).*

The key thing to consider here is that constructivism incorporates a range of ideologies and learning possibilities. Simons (1993), for example, identifies six core features of constructivist learning and argues that some or all of these features can be present in order for learning to be labelled constructivist. Of these six core features, four are taken from Shuell (1992) and the last two have been added by Simons:

Constructivist learning should be:

- Active – learners must do certain things while processing incoming information in order to learn the material in a meaningful manner;
- Constructive – new information must be elaborated and related to other information in order for the learner to retain simple information and to understand complex material;
- Cumulative – New learning builds upon and or utilises the learner’s prior knowledge in ways that determine what and how much is learned;
- Goal – oriented – learning is most likely to be successful if the learner is aware of the goal toward which he or she is working and possesses expectations that are appropriate for attaining the desired outcome;
- Diagnostic;
- Reflective.

(Adapted from Simons, 1993, p. 291).

In addition to these 6 features, Simons suggest that effective learning will take place if the conditions are self-regulated, intrinsically motivated, discovery orientated, contextual, problem-oriented, case-based and social.

Simons’ list is comprehensive and covers many of the core features of constructivist learning. Murphy (1997) adds to this understanding and uses Jonassen’s (1994) work to identify 8 ‘features’ of constructivist learning:

- 1) Constructivist learning environments provide ‘*multiple representations of reality*’ (p. 2).
- 2) Multiple representations ‘*avoid oversimplification and represent the complexity of the real world*’ (p. 2).
- 3) Constructivist learning environments emphasise knowledge construction instead of knowledge reproduction
- 4) Constructivist learning environments emphasise authentic tasks in a meaningful context rather than abstract instruction out of context.



- 5) Constructivist learning environments provide learning environments such as real-world settings or case-based instead of predetermined sequences of instruction.
- 6) Constructivist learning environments encourage thoughtful reflection on experience.
- 7) Constructivist learning environments “*enable context-and context-dependent knowledge construction*” (p. 2).
- 8) Constructivist learning environments support “*collaborative construction of knowledge through social negotiation, not competition among learners for recognition*” (p. 2)

(Adapted from Murphy, 1997, p. 2)

If these features of constructivist learning environments are generally accepted, then they are helpful for providing a clear theoretical and practical framework for CPL as a strategy for designing effective CPD. If it is agreed that CPL is situated within a constructivist framework, a deeper analysis is then required in order for teachers to benefit from this theory of learning. The constructivist literature identifies two strands of constructivism: cognitive constructivism and social constructivism. The former is associated with the work of Piaget and the latter with the ideas of Vygotsky (1978). Although originally concerned with children’s learning and development, it is relatively easy to see how these theories can be adapted and applied to adult learning.

Piaget’s developmental stage theory assumes that humans cannot simply absorb information, they must learn by experiencing it. Thus, instructional forms of tuition would be wasted if people did not have some experience of the knowledge they were ‘receiving’. In relation to professional development, this key concept is important as it suggests that where teachers attend ‘courses’ that are designed to ‘distribute’ knowledge, it is unlikely to lead to effective learning because the learning will be out of context and will not readily be applicable to practice. However, although cognitive constructivism identifies how individuals learn from their experiences and is useful for providing a framework for a certain type of learning, it is also limited because it does not consider how people learn from each other. For this reason, Social Constructivism, incorporating the ideas of Vygotsky (1978) is more helpful to this discussion of CPL because it recognises interaction between individuals as well as

with the environment. This is supported by Kirk & Macdonald (1998) who stress that *“learning is an active and creative process involving an individual’s interaction with their physical environment and with other learners”* (p. 377). Vygotsky (1978) identifies the benefits of working together in order to learn effectively and proposes a Zone of Proximal Development (ZPD), which explains how children (and adults) have certain potentials for understanding and learning and these differ depending on the amount of help they are given. A person’s actual development is what he/she can do on his or her own and their potential development is what they can achieve with help:

*“(The ZPD) is the distance between the actual development 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 peer”* (Vygotsky, 1978, p. 86).

This concept would appear to be helpful for an analysis of CPL in schools. The concept of ZPD hints at the potential value of mentoring and collaboration in teacher professional learning.

Vygotsky (1978) also identifies the need to place learning in context, linking with the constructivist view that learning should be authentic, contextualised and situated. Indeed there is much support for the value of learning that takes place in a contextualised setting (Lave & Wenger, 1991; Entwistle, Entwistle & Tait, 1993; Kirshner & Whitson, 1997; Stein, 1998; Knuth & Cunningham, 1993):

*“An important aspect of this approach is the insistence that learning take place embedded in the contexts to which it is most relevant in everyday life and with which the students are personally involved”* (Knuth and Cunningham, 1993, p.164).

This view is based on the assumption that learning will be facilitated in an environment that is contextually similar to the environment where the learning is needed. From this comes the concept of ‘transfer’. It has been argued that a person can only be said to have learnt something if they can apply it to a different but similar context:

*“Traditional cognitive psychology has found precious little evidence of people’s ability to apply knowledge gained in one context to problems encountered in another”* (Kirshner & Whitson, 1997, p. 9).

*“Instructional methods designed simply to pass on knowledge as separate, decontextualised pieces of information miss the whole essence of the ways in*



*which knowledge is constructed and understanding developed” (Entwistle, Entwistle and Tait, 1993, p.331).*

If learning is likely to be most successful when contextualised, then Lave & Wenger’s (1991) work on situated learning offers another theoretical dimension to CPL. Lave & Wenger identify the importance of situated learning and argue that a hands-on approach is essential to facilitate learning in the workplace. They define situated learning as:

*“Learning viewed as situated activity has as its central defining characteristic a process we call legitimate peripheral participation. By this we mean to draw attention to the point that learners inevitably participate in communities of practitioners and that mastery of knowledge and skill requires newcomers to move toward full participation in the socio-cultural practices of a community. ‘Legitimate Peripheral Participation’ provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artefacts, and communities of knowledge and practice. It concerns the process by which newcomers become part of a Community of Practice. A person’s intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a sociological practice” (p.29).*

Lave and Wenger thus emphasise the importance of contextualised learning and suggest that practitioners should generate knowledge within the practice in which it will be required. A person legitimately participates in a practice and it is through this participation that they learn how to ‘perform’ the practice:

*“The individual learner is not gaining a discrete body of abstract knowledge which (s)he will then transport and reapply in later contexts. Instead she acquires the skill to perform by actually engaging in the process, under the attenuated conditions of legitimate peripheral participation” (Lave and Wenger, 1991, p. 29).*

In support of Lave and Wenger’s work, Stein (1998) suggests that situated learning differs from other learning in that:

*“In situated learning, students learn content through activities rather than acquiring information in discrete packages organised by instructors” (p. 1).*

Stein identifies four ‘major premises’ to be considered in relation to a situated learning environment. These are:

1. *learning is grounded in the actions of everyday situations;*
2. *knowledge is acquired situationally and transfers only to similar situations;*

3. *learning is the result of a social process encompassing ways of thinking, perceiving, problem-solving, and interacting in addition to declarative and procedural knowledge;*
4. *learning is not separated from the world of action but exists in robust, complex, social environments made up of actors, actions, and situations. (Stein, 1998, p. 1).*

The situated learning literature can arguably be viewed as a theory of apprenticeship. In their book, 'Situated Learning: Legitimate Peripheral Participation', Lave and Wenger (1991) describe the ways that apprentices learn. Learning is achieved through a variety of means and this learning is practice-specific with the majority of it learnt in an implicit manner. The apprentice learns from his or her 'master', from other members of the practice and through their own experiences. The suggestion that inexperienced or novice practitioners may learn from more experienced or expert mentors or masters is not new. The literature on apprentices reveals how this partnership can be beneficial and is of particular importance because learning is done in the context of a particular job. However, Guile & Young (1998) criticise the apprenticeship literature for concentrating on traditional and outdated practices and argue that people's understanding of apprentices needs to be updated. Resnick (1987) suggests that the concept of apprentices be 'rehabilitated' and suggests that the term 'cognitive apprenticeship' is employed, whilst Guile and Young suggest that Vygotsky's ZPD be 'reconceptualised'. Viewing NQTs as cognitive apprentices may be useful when considering how they learn from and with their colleagues.

Related to situated learning and constructivism is 'Situativity Theory'. Barab and Duffy (2000) suggest that the term constructivism was used as a label to break away from objectivist views of learning. Barab & Duffy (2000) employ the term 'situativity theory' instead and make the distinction between psychological and anthropological situativity. Whereas Piaget and Vygotskyian perspectives differ in the extent to which social factors are considered, these two perspectives differ in the degree to which a learning environment is situated and 'real'. The psychological aspect of situativity theory (Resnick, 1987; Brown, Collins & Duguid 1989; Barab & Duffy, 2000) concerns learning in an environment that is situated and contextualised but not 'real' and includes methods such as role-play, anchored instruction (Bransford, 1990) and problem solving. Barab & Duffy (2000) and Honebein, Duffy and Fishman (1993) although supporting these methods as a useful means of knowledge acquisition,



criticise them for being too far removed from the real-world, thus allowing too many opportunities for decontextualisation:

*“There is potential for great realism, but since there is a single scenario, transfer to new environments may be quite limited” (Honebein, Duffy and Fishman 1993, p. 97).*

Honebein et al (1993), therefore, choose to support an anthropological view of situativity; that is one that is situated in a real context. In the context of CPD that employs CPL, the distinction between the two could be understood as collaborative problem solving on a ‘course’ away from school and solving real-life problems with colleagues in the workplace. A further problem with Vygotskyian theory and the concept of apprentices is that it underplays the potential for the experienced teacher to learn too. Experienced teachers may have a lot to learn from less experienced members of the profession and also through the process of teaching, explaining and demonstrating. As Azmitia (2000) and Fuller, Hodkinson, Hodkinson & Unwin (2005) argue:

*“Whilst researchers have generally not considered the experts’ cognitive development following collaborations with novices, it is likely that the process of carefully considering the task, decomposing it into manageable chunks and explaining the steps to the novices increases the experts’ understanding. As many professors know, the best way to master the ins and outs of a domain is to have to teach it. Collaborative cognitive development also frequently occurs in situations where partners’ abilities are more evenly matched. In this situation, collaborators who are able to establish a shared frame of reference, build on each other’s ideas, and feel comfortable challenging each other’s understanding and solving differences of opinion, change cognitively during and following the interaction” (Azmitia, 2000, pp. 182-183).*

*“Trainees can benefit from working in a successful department and the established staff can benefit from new ideas and skills brought by the trainees, and benefit by reflection on their own practice which occurs instinctively as they try to help the trainees to improve” (Fuller, Hodkinson, Hodkinson & Unwin, 2005, P. 61).*

It could be argued, therefore, that CPD might be more effective when learning takes place in an environment that is situated and real as opposed to being situated and simulated. In support of this, Wenger (1998) proposes the notion of ‘Communities of Practice’ (CoPs). This extends Vygotsky’s theory because it focuses on two-way or multi-directional learning and it is potentially more helpful than psychological

situativity as it focuses on real-life contexts in which people learn. Communities of Practice are:

*“At the simplest level, they are a small group of people who have worked together over a period of time. Not a team, not a task force, probably not even an authorised or identified group. People in Communities of Practice can perform the same job or collaborate on a shared task or work together on a product. They are peers in the execution of ‘real work’. What holds them together is a common sense of purpose and a real need to know what each other knows. There are many Communities of Practice within a single company, and most people belong to more than one of them” (TCM.com, 2002, p.1).*

Wenger (1998) uses the example of an insurance claim’s processing office. Members of the office are involved in processing medical claims forms. Within the office is a hierarchy of workers of varying degrees of experience. The learning that takes place in this environment is mainly implicit. Through asking questions, watching other members of the office, reflecting and experiencing, members of the office progress through the ranks. Wenger also points to the social aspect of this community and the valuable support that it provides. Its workers learn as they are working and during their breaks when the conversation inevitably becomes work-related. There is no formal teaching taking place but workers are continually learning from each other in a supportive environment.

In a school, the main Community of Practice would be the teaching staff, but would also include non-teaching staff such as Learning Support Assistants (LSA), administration staff, parents and children. Learning within a Community of Practice would include anything learnt by teachers or others to enhance their practice. Kirk and Macdonald (1998) see this community as being:

*“An occupational group such as teachers. Teachers may also be part of a larger Community of Practice such as the school, which in addition to teachers as salaried workers, includes administrators and other workers and students” (p.380).*

In a school, opportunities for learning may occur when teachers talk to each other during their breaks or when they discuss issues with an LSA or parent helper during or after a lesson. Alternatively they could occur within formal staff meetings as well as many other instances too.



Community of Practice is a useful concept because it recognises that everyone within a particular community is a learner. In support of Wenger, many similar concepts have been proposed. Toole & Louis (2002) choose to employ the term 'professional learning community' and argue that:

*"Researchers use a variety of terms to describe how to organise schools for teacher learning: collegiality (Little, 1982, 1990, 1993; Barth, 1990; Sergiovanni, 1994) collaboration (Rosenholtz, 1989; Nias, Southworth, and Yeomans, 1989; Zellermyer, 1997), professional community (Louis and Kruse, 1995), discourse communities (Putnam and Borko, 2000), teacher networks (Lieberman, 2000), professional learning community (Hall and Hord, 2001) democratic communities (Kahne, 1994) and schools that learn (Leithwood, 2000; Senge et.al., 2000)" (p.4).*

The concept of a learning community is defined by Cocklin, Coombe and Retalick (1996) as:

*"The school as a learning community is characterised by an active participation by all in a collaborative culture taking responsibility for learning. No longer is learning solely the domain of those vested with power in a hierarchy of knowledge relationships, but requires the interactive involvement of families and children, as well as principals, teachers and administrators" (p.3).*

It is clear, therefore, that the concept of CPL has roots in a range of learning theories. Whilst the terms employed to describe CPL differ, they are essentially describing similar concepts and all fall, to some extent, within the constructivist paradigm.

## **2.10 Collaborative Professional Learning in Practice**

Collaborative learning is widely recognised in the literature as a useful tool for teachers' professional development. Eisner (1978) described the benefits of teacher collaboration as follows:

*"I would like one day to see schools in which teachers can function as professional colleagues, where part of their professional role was to visit the classrooms of their colleagues, and to observe and share with them in a supportive, informative and useful way what they have seen. Less professional isolation and more professional communication might go a long way to help all teachers secure more distance and hence to better understand their own teaching" (cited in Smyth 1991, p. 91).*

More recently, Day (1996) drew on research by Rosenholtz, (1989); Mortimore et.al., (1994); Purkey & Smith, (1982), Reynolds, (1988) & Hopkins, (1996) to conclude that: *"Much research suggests that collaboration is an essential ingredient of teacher*

*development and thus school improvement*" (p. 80). This view is further supported by a range of authors:

*"Teacher learning is most likely to occur when teachers have the opportunities to collaborate with professional peers, both within and outside of their schools, along with access to the expertise of external researchers and program developers" (King & Newmann, 2001, p. 86).*

*"If expertise lies within the individual, but the individual needs to be made aware of this, then what better way than sharing experiences through mutual dialogue? Working collaboratively in this way promotes expertise and knowledge, allowing learning to be thought of as a continuous and steady improvement of practice" (Nicholls, 1997, p. 100).*

*"Researchers report that regular opportunities for interaction with colleagues are essential to creating professional school cultures (Lieberman, Saxl & Miles, 1988; Miller, 1988). A community of peers is important not only in terms of support but also as a crucial source of ideas and criticism (Sykes, 1996)" (Sandholtz, 2000, p. 39).*

*"Many teachers undergo professional development through working with colleagues on a defined task or set of problems such as during working group discussions or planning activities. This kind of professional development is often underestimated; yet learning from the successes and failures of strategies and working relationships can lead to professional growth and learning for individuals, groups and schools as organisations" (Craft, 1996, p. 23).*

Although there appears to be widespread support for the general concept of CPL, it may be that different understandings of the concept underpin such support. Collaborative learning can be defined as any occasion where a teacher works with another teacher to improve their own or others' understanding of any aspect of pedagogy. CPL would appear to encompass a wide range of concepts and processes such as: mentoring, interaction with colleagues (Sandholtz, 2000), peer coaching (Lieberman 1996), critical friends (Day, 1999), purposeful conversations (Burgess 1988), clinical review (West-Burnham, 1998), and a whole range of activities such as observation, working on tasks together and sharing ideas or discussing the implementation of resources. Although each of these could involve different activities and processes, an underpinning notion of collaborative learning seems to unite them.

CPL, therefore, appears to be founded on the assumption that every school contains expert and experienced teachers with a wealth of knowledge between them. In sharing this knowledge, teachers can collaborate, reflect and learn from each other.



Each teacher has a certain amount of knowledge about teaching and children's learning but nobody can be expected to know everything. It is helpful, therefore, for this knowledge to be shared and for teachers to be given opportunities to do so. However, in unpicking the concept of CPL further, Sternberg and Horvath (1999) identify the concept of tacit knowledge. This is defined as the knowledge that teachers (or other professionals) have but do not necessarily realise they have. It is this tacit or implicit knowledge that needs to be 'extracted' and it is through collaboration that this can be done effectively:

*"People know more than they can tell. Personal knowledge is so thoroughly grounded in experience that it cannot be expressed in its fullness. In the last 30 years, the term tacit knowledge has come to stand for this type of human knowledge – knowledge that is bound up in the activity and effort that produced it" (Sternberg & Horvath, 1999, p.ix).*

Through collaboration, therefore, experiences can be shared, resulting in learning by all parties in the process.

Despite much of the literature being in agreement that collaboration can be a beneficial part of teachers' learning, it is important to clarify the difference between productive collaborative opportunities and everyday discussions. Rosenholtz (1991) identifies experience swapping, sympathy and support as examples of collaborations that may not be productive. The differences between collaboration and co-operation are identified by Nicholls (1997) in an example of children working on the computer. In a co-operative situation, children share the mouse and take turns but do not discuss the problem. In a collaborative situation the children co-operate as before but they work together to solve a problem by discussing and exploring possible solutions. The former of these could be seen as analogous to a situation where teachers co-operate with each other, share resources and swap lessons plans but do not discuss solutions or explore problems at a deeper level. Day (1999) explains that: *"It (discussions) may be co-operation masquerading as collaboration and remain at the level of talking about teaching, advice giving (and) technique trading"* (p.80). Little (1990) also points out that weaker collaborations may just reinforce bad habits amongst collaborators; this may occur when teachers share classroom stories, offer help when asked or share ideas without critically examining them. A further warning that collaborations need to be structured and based around reflective problem solving activities comes from Whelan, Huber, Rose, Davies & Clandinin (2001) who emphasise the importance of

*“storytelling with diverse responses that leads to restorying with growth and change”* (p.154). They argue that for this to happen, it is essential to provide structured opportunities for stories to be exchanged and re-told such that teachers can learn to re-story in new ways.

Nicholls (1997) identifies a further problem associated with collaborations in an examination of the ways in which higher education institutes (HEIs) tend co-operate with schools by providing INSET courses but rarely collaborate with them to resolve a problem:

*“(A co-operative partnership is where) schools/HEIs use each other as a resource to facilitate their end goals. They are merely ‘willing to assist’ each other in a venture – a scenario very often found with INSET courses. (A collaborative partnership could be when institutions) seek to make partnership agreements through a genuine desire and active interest in resolving problems jointly... Both institutions see themselves as ‘working with one another on a joint project’ Each institution opens themselves up to their private worlds becoming intertwined as the process develops”* (p.9).

Given the widespread agreement on the benefits of collaborative learning (Sandholtz, 2000; Lieberman, 1996; Day, 1999; West-Burnham, 1998), it might seem odd that it is not used more extensively in teachers’ CPD. A number of possible reasons may exist for this. For example, in one study of PE teachers by Ward & O’Sullivan (1998), teachers simply didn’t see the need to renew their skills or continue their learning. This problem was identified as ‘Pedagogical Reductionism’ where teachers adopt a ‘one-size-fits-all’ approach to their teaching, resulting in teaching that becomes ‘monotonous’. This is not to say that these teachers are not successful, just that they are not willing to improve their teaching by trying or adopting new techniques. Linked to this and a possible cause is ‘isolation’, where teachers are left to their own devices and not provided with essential opportunities to interact or to learn from one another. Indeed, feelings of isolation may be common amongst teachers. Rosenholtz (1991) would describe this as being ‘professionally orphaned’. Yet isolation is a problem that CPL could help to overcome. As Sandholtz & Dadlez (2000) comment:

*“Collaborative experience created what one teacher called a “culture of sharing and helping” among the co-operating teachers... Co-operating teachers spoke about the collaborative and supportive environments engendered by the program and how it has decreased the isolation found in many secondary schools”* (p. 20).



There are numerous suggestions about how CPL could be structured to work in schools. Darling Hammond (1994, p. 209-217) draws upon Van de Water's (1989) ten characteristics of successful collaborations. These are:

- 1) Mutual self-interest and common goals;
- 2) mutual trust and respect;
- 3) shared decision making;
- 4) clear focus;
- 5) manageable agenda;
- 6) commitment from top leadership;
- 7) fiscal support;
- 8) long-term commitment;
- 9) dynamic nature;
- 10) information sharing and communication.

Other indicators of successful collaborations include:

*“ the maintenance of professional respect for the core work of peers (Bishop, 1977), the tolerance of individual preferences and styles (Little, 1990), and the avoidance of arrogance (Huberman, 1993)” (Sawyer, 2001, p.4).*

Furthermore, Azmitia (2000) identifies timing as an important consideration. She proposes that in order for a creative insight to occur, a time delay between collaboration and the ‘moment of inspiration’ may occur: *“knowledge and discoveries may need some time to ferment before achieving their ‘bouquet’ – the creative insight or the developmental shift”* (p. 187). When designing collaborative learning as part of a professional development programme this too needs to be considered.

Just as it is helpful to consider how collaborations can be facilitated, it is useful to consider factors that may be acting as barriers to collaborations. On a general level Tall & Smith (1997) identify funding and the cost of supply cover as two such constraints. If this situation exists in schools then collaborations may be more likely to occur when they do not require extra funding and do not take teachers out of the classroom. Another consideration for successful professional collaborations is the importance of establishing trust between colleagues (Hargreaves, 2002; Nicholls, 1997):

*“Trust is essential and necessary for collaborative projects. The nature of this trust must nourish dialogue and inquiry, allowing those involved in the collaboration to tolerate ambiguity, misunderstanding, a divergence of views and continuing discussions even when the situation is uncomfortable, without forcing collaborations into one position or another” (Nicholls, 1997, p115).*

Teachers may be reluctant to ask for help because they are embarrassed or unwilling to admit that they are struggling (Rosenholtz, 1991). Some teachers may even view it as unprofessional to offer advice. Hargreaves (2002), for example, writes of teachers avoiding conflicts and confrontation where possible, and notes that offering help may be perceived as being interfering and impolite. Furthermore, he states that people are:

*“more prepared to engage in argument or disagreement with close friends or immediate family since they know that the enduring ties between them will withstand temporary differences. Organizations are the same. Conflict will be more likely to be risked where underlying trust already exists. Trust, then, is a vital ingredient of productive professional collaboration” (p.394).*

Hargreaves also suggests that trust must be established over time and worked upon to improve and encourage collaborations and avoid betrayal. Betrayal in the workplace, according to Hargreaves, includes ‘contractual betrayal’, whereby teachers fail to do their job properly leaving others to fill in the gaps; ‘communication betrayal’, where staff gossip occurs or colleagues speak badly of each other to students or other teachers; and ‘competence betrayal’, where staff behave in a way to make others feel less than competent. Thus, in CPL, these three types of betrayal need to be avoided and the corresponding types of trust built. However, Williams, Prestage & Bedward (2001) found that some teachers were reluctant to impose their ideas on other teachers or offer too much help to inexperienced teachers because they felt this was doing the teacher’s job for them. They also found that some NQTs felt happier asking for help from other NQTs than from more experienced teachers as this was less threatening. Furthermore, Talbert & McLaughlin (2002) state *“Professional isolation is self-perpetuating. When teachers feel that colleagues are not sharing resources and experience that could help their own practice, they guard closely their own resources and successes” (p. 331).*

Whilst personal barriers and issues of trust may prevent some collaborations, there may be external factors that also constrain collaboration. Opportunities may not be available in school to support collaboration:



*The working life of most teachers does not systematically include times for connecting with advances in the knowledge base of their own profession. A social culture that does not overtly create (or encourage) an expectation to discuss practice in ways that demonstrate such knowledge in practice further exacerbates the situation (Loughran, Gunstone, Berry, Milroy & Mulhall, 2000). Also, as Duckworth (1991) points out, teachers do not necessarily take their own knowledge seriously, leaving it mostly untapped and known only to she/he who holds it” (Loughran, Mitchell & Mitchell, 2003, p.853).*

There may not be enough time or, on a more basic level, there may not be a space for teachers to discuss pedagogical issues in the depth required for learning to take place: *“Harried workdays, closed doors, curriculum demands, and a lack of flexible scheduling keeps teachers apart” (Mycue, 2001, p. 28).* The way in which schools are built may also inhibit collaborations because many classrooms are isolated such that teaching occurs behind closed doors:

*“One NQT interviewed was located at a distance from the rest of her colleagues and describes a level of isolation and unhappiness... Another, who left her school in the middle of the year, also speaks of her physical isolation: ‘I’m outside teaching – I’m not even in the school and if I had a problem I couldn’t sort of pop next door and say this isn’t working or something’s going wrong. I felt very out, very isolated out there’ (Diana, primary NQT)” (Williams, 2003, p. 213).*

It may be that open plan classrooms are more conducive to collaborations:

*“Nias notes that primary teachers, particularly inexperienced ones and newcomers to a particular school, learn most from those of their colleagues who are easily visible or accessible, that is, people who have the same or adjacent teaching areas (Nias et al, 1989)” (Williams, Prestage and Bedward, 2001, pp. 257-258).*

In addition, Rosenholtz (1991) raises the problem of head teachers who do not support/encourage collaborations. Her research indicates that some head teachers are reluctant to offer help to their staff and this unsupportive ethos filters through to all teachers. For example, some head teachers appear reluctant to allow their staff opportunities to discuss their work or allow them autonomy in decision making, perhaps because they don’t want to hand control over to their staff. This would suggest that head teachers need to be involved in the collaborative learning process, in order for teachers within their schools to embrace it and view collaboration as a normal occurrence in everyday professional life:

*“Principals from collaborative schools seem to set themselves apart from others by their everyday accessibility and involvement in classroom affairs...teachers from various collaborative settings repeatedly stress the*

*benefits that accrue from their principal's advice and help" (Rosenholtz, 1991, p. 58).*

*"Principals may establish collaborative norms. They make helping behaviours salient, necessary, and dominant features of school life" (Rosenholtz (1991, p. 61).*

*"the principal has to be a learner just like every single teacher" (WestEd 2000, p. 31).*

On the other hand, CPL does not just happen, it needs some prompting and a facilitator may be needed (Toole & Louis, 2002), but leaders may also prevent collaborations if they become too dictatorial.

Williams, Prestage & Bedward (2001) identify three types of collaborative schools: individualised, structured and spontaneous. Individualised schools do not encourage collaborative learning. Structured collaborations are those which are initiated because they are required and planned for. These may be required as part of the NQT induction year or might include arrangements for joint planning. Spontaneous collaborations occur in schools where collaborative opportunities occur naturally and are encouraged. This could include team teaching and informal conversations. Encouraging and supporting informal conversations could improve teacher learning in schools, although it is likely that incorporating collaborations into the culture of the school, as shown in the spontaneous collaborations, would be more beneficial. Whilst these examples were focussed on NQTs and the induction year, the types of collaborations identified can be useful in studies of professional development for all teachers.

Thus, it would appear that in order for schools to create and maintain a collaborative culture, they must pay attention to a wide range of factors. Nicholls (1997) identifies eight obstacles which need to be overcome in order for successful collaborations to occur. These are:

- 1) Definition of role that limits collaborative initiatives;
- 2) implicit and explicit conceptions of what it means to work as a professional within a given institution;
- 3) conceptions of what it is to learn professionally, both explicitly and implicitly;
- 4) career development: competition between colleagues for attention and prestige;



- 5) lack of understanding about institutional differences;
- 6) implicit and explicit hierarchical structures;
- 7) lack of common communicative language;
- 8) lack of understanding of the need to collaborate.

(Adapted from Nicholls, 1997, p.119-120).

Taking note of the barriers and obstacles to CPL and being aware of the ways in which successful collaborations can be encouraged may help to promote effective CPL in schools, but this is not straightforward:

*The fact remains that most teachers experience precious little support in their workplaces for critically inquiring into their practices. 'Professional culture of inquiry' remains less a reality than a phantasmagoric ideal" (Stokes, 2001, p.142).*

This section has highlighted theoretical and practical issues around CPL, and has identified some of the reasons why structured CPL is not being embraced more widely in schools. An analysis of historical developments in education, PE and professional development may shed some further light.

## Chapter 3: A History of CPD and PE-CPD

### 3.1 Introduction

CPD, although being a relatively new term, has its roots in the past. Teachers have always needed to learn and historically, both personal and external attempts have been made to enable teachers to do so. Knowledge of past CPD initiatives can help to inform the present and future. Indeed, Woodrow (1998) states that there is a:

*“need for professional development initiatives, of whatever kind, to build on the range of existing knowledge garnered during the past 20 years or so. It is important that we progress rather than keep discovering old wheels – exciting though that may be for the explorers” (Woodrow, 1998, p. 1).*

Thus, an understanding of the historical development of CPD in education is informative and can be used to analyse some of the CPD practices found today. The following section is divided into key historical time periods and the broad context of education is outlined for each period before focussing specifically on CPD and PE-CPD.

### 3.2 A History of CPD (1870 – 1944)

In 1870, the Forster Act sought to provide an elementary education for all the children of England but it wasn't until 1944 that the idea of differentiated primary and secondary education was established and put into practice. It is because of this that although a major emphasis will be placed on primary education, the education of older children in the elementary and secondary schools will also be considered in this section.

In the years leading up to the 1870 Forster Education Act, there was an increased awareness of the need to educate the population. Changing social and political factors in industrial Britain meant that there was a greater need than ever to have a numerate and literate workforce. The 1870 Act meant that elementary education was not only provided but was compulsory for all children between the ages of five and twelve (later extended to 14). For those whose parents could not afford to pay for their child's education, free or subsidised places were provided. In addition to the elementary schools, there remained voluntary church-aided schools, some grammar schools and Public Schools such as Eton and Harrow (Curtis, 1957).



In searching the history of CPD, it is evident that informal forms of CPD for teachers were available as far back as the late 1800s. These included courses held outside of term time, some publications and the principles taught by supporters of the kindergarten movement such as Friedrich Froebel (Dombkowski, 2001), and Maria Montessori (Brehony, 2000), which became increasingly popular from 1850:

*“English and US Kindergarten groups propagandised and proselytized; they sought donations and held lecture series and demonstration classes for teachers and parents; they lobbied school administrators and government policy makers” (Dombkowski, 2002, p. 477).*

Much early CPD was informal, with few structured opportunities once a teacher had started teaching. Indeed, teaching at this time was very much governed by class dynamics; classes of 50 and even 100 children were not unheard of and this dictated a certain style of teaching. As Curtis (1957) states:

*“Teaching methods in the 1880s were largely mechanical, partly due to large classes...As additional subjects found their way into the curriculum, teaching methods improved but slowly” (p. 295).*

Although there were new ideas filtering through to teachers, such as those of Froebel and Montessori, it was difficult for many elementary teachers to adopt these principles in classes of such size. Teaching remained very didactic and there was little room for discovery and investigation.

Another factor influencing the teaching style of the late 1800s was the ‘payment by results’ system that was in place, where teachers were paid according to how well their pupils performed in specific tests: *“In the seventies and eighties school work remained undeniably hard...preparation for these examinations, chiefly mechanical, practically monopolised the labours both of teachers and children” (Lawson & Silver, 1973, p. 328).* A change in the emphasis of education and a reduction in class size was thus needed before any major change in pedagogy could occur for the majority of elementary school teachers.

The pedagogic principles behind the kindergarten movement formed the basis of ‘progressive’ or ‘new’ education, which became popular in the twentieth century. This child-centred view of education began a movement away from the traditional teaching methods employed in Victorian schools. Whilst there were few opportunities

for formal training in these new methods, there were demonstration lessons and publications to which some teachers would have had access:

*“Their practical applications were brought to the notice of teachers through the publication of a number of well-known educational thinkers, many of whom were connected with the university departments of education” (Curtis, 1957, p.369).*

The period 1900-1944 witnessed three wars and three major Education Acts (1902, 1918 and 1936). It marks the start and subsequent development of the dual system of primary and secondary schools and the tripartite system of secondary schooling, although this was not completed until after the Second World War. Schools did change throughout the period:

*“Schools, at the outbreak of war, were far different places from those of 1902. Many were still hampered by inadequate buildings and unsuitable sites, but on the whole, they had become bright and pleasant places, pervaded by a friendly atmosphere, in contrast with the formal, repressive conditions of the 19<sup>th</sup> century” (Curtis, 1957, p.369).*

Two reports were produced by the Hadow Committee, lead by Sir W.H. Hadow. The first, in 1926, concerned the “Education of the Adolescent” and the second, in 1931, concerned the primary school. The reports were influenced by John Dewey and they recommended that teaching be viewed from a different perspective to the more traditional ways of the past:

*“Dewey’s aim was to promote individuality, to base education on the concept of children as children, not as future adults, on the idea of growth in children as an end in itself, not as a preparation. The experience of the child must be real; learning, in the most famous of Deweyite slogans, must be by doing” (Lawson & Silver, 1973, p.398).*

Dewey’s ideas are evident in the recommendation from the Hadow Committee that *“the curriculum should be thought of in terms of activity and experience rather than of knowledge to be acquired and facts to be stored” (Lawson & Silver, 1973, p.387).*

Such a change in the recommended teaching style might indicate that professional training for teachers would be needed, but there is little evidence on whether or how such training was provided.

Perhaps the first official attempt by the government to provide professional development was the publication in 1905 of ‘A Handbook of Suggestions for the Consideration of Teachers and others engaged in the work of the public elementary



schools'. This was intended to provide guidance and help for teachers in their careers, should they need it. *"Its issue was momentous because for the first time it gave the teacher freedom to try and work out his job in his own way"* (Curtis, 1957, p. 328). It was recommended that *"teachers who use the book should therefore treat it as an aid to reviewing their aims and practice"* (Curtis 1957, p. 328). The book was a significant event for professional development, as it appears to be the first official publication to guide and develop qualified teachers in their careers. As well as covering issues such as styles of teaching and some subject knowledge, it is interesting to note the inclusion of the following two sections: the value of staff conferences and the treatment of the teacher on probation, both of which are topical issues in contemporary education. It was suggested, for example, in the 1937 version of the handbook that conferences should be held regularly *"to discuss progress made, changes in the scheme of work, or modifications of method, and to put teachers in possession of what is being done in other parts of the school"* (p. 55). The Handbook of Suggestions (His/Her Majesty's Stationery Office (HMSO), 1937) points to the value of guidance from experienced teachers and also recognises that experienced teachers have a lot to learn from the fresh ideas of teachers recently qualified from the training colleges:

*"Lack of practical skill in the theorist is no proof of the worthlessness of his theories, and the wise head teacher will get from his young assistant all the new ideas he can for trial, and, if necessary, for amendment in the light of further experience"* (HMSO, 1937, p. 57).

Another opportunity for professional development was brought about by the changing role of His/Her Majesty's Inspectors (HMI). Whereas, HMI had once been employed to oversee the payments by results scheme, their role was changing to become more advisory: *"They now had greater freedom to advise and help and to disseminate new ideas"* (Barnard, 1961, p. 218). The role of HMI within PE will be discussed later in this chapter.

### **3.3 A History of PE-CPD (1850 - 1944)**

Physical Education in primary schools in England from the nineteenth century developed in two ways. In the state-run elementary schools, PE started to feature more prominently than it had before, possibly due to the impact of three recommendations from William Jolly (HMI) in 1876. He identified the potential



health benefits of PE for children and put forward three recommendations. Firstly, physical training should be part of the payment by results scheme<sup>2</sup>; secondly, health should be studied as a subject at school; and thirdly, physical training (PT) should become compulsory in teacher training (Kirk, Penney, Burgess-Limerick, Gorely & Maynard, 2002). This is also evident in the fact that HMI were instructed to inspect the exercise grounds available for school children to discover:

*“what games were encouraged, what gymnastics equipment, if any was provided, whether the children were trained methodically in walking, marching and physical exercises, what was the result and how often the intervals for recreation occurred” (McIntosh, 1952, p.203).*

The second development within PE in England at this time was in the public schools. Public schools were developing their own system of physical education, based on games such as cricket and football. These began as recreational activities but the merits of such games were soon recognised and inter-school matches organised. Initially there was no physical educator. The boys played by their own rules and the skills were self-taught through practice. It was only when the prestige of such games increased that a professional was hired, not as a coach or teacher, but as a skilled opponent against which the boys could play. Head Masters began to show an interest in these games and eventually a Games Master was appointed in some schools:

*“The Games Master ...was appointed to the staff and had the same status as any other master; he had a degree obtained at Oxford or Cambridge University and he taught in the classrooms, but his primary task was to help with one or more school games, and his qualification for appointment was his own prowess in those games” (McIntosh, Dixon, Munrow, Willetts, 1981, p. 197).*

The aims of PE in public and elementary schools thus differed. In elementary schools, military drill was expected to instil discipline and obedience into the working classes whilst games were meant to promote leadership in the upper classes:

*In the boys’ public schools organised games and athleticism developed into a cult of overriding importance in the education which was provided by those schools. In the elementary schools drill and drill-like exercises were evolved to meet the exigencies of appalling facilities and huge classes of unruly children (McIntosh, 1952, p. 133).*

---

2 As has already been mentioned, teachers were paid according to the results they achieved. This change in policy meant that teachers would be paid for the results they achieved in PE.

Although it was clear that PE was gaining in prominence during the nineteenth century, there is little evidence about the ways in which teachers were supported to meet new demands. McIntosh (1952) outlines a number of key influences within PE at this time and these may have provided some teaching support. For example, in the early nineteenth century, many ideas in PE could be attributed to the work of the German, Guts Muths, whose manual "Gymnastik fur die Jugend" was translated into English in 1800. A Swiss disciple of his, P.H. Clias, published his own version of Guts Muths' work in 1823, titled "An Elementary Course of Gymnastic Exercise". Clias' role was that of organising gymnastics for the military, and so his ideas were military in style and resembled drill. The development of gymnastics in education after 1839 can be attributed to the work of Archibald MacLaren and the work of P.H. Ling in Sweden. MacLaren saw the merits of using Physical Education within education, believing that people needed to be in 'good condition' to cope with life. He saw the need for 'cross training' and recognised the importance of improving muscular strength. His methods of gymnastic exercises were based heavily on the military ideas of Clias and an emphasis was placed on the use of apparatus. In contrast to this was the work and ideas of P.H. Ling, whose understanding of physiology produced a very different system of gymnastics, which was medical and therapeutic in outlook. Ling's 'Free Exercises' were so called because they were performed without the use of apparatus. This type of gymnastics was filtering slowly into schools during the 1850s and 1860s and was to play a prominent part in the twentieth century. Despite these new demands on teachers, there was little documented evidence of support for teachers except, perhaps, for access to the books of Guts Muths, Clias, MacLaren and Ling (McIntosh, 1952).

McIntosh et al (1981) report that one of the most significant events for PE in the nineteenth century was the invitation sent by the London School Board in 1878 to Miss Concordia Lofving to come to England as the Lady Superintendent of Physical Education. This started the ensuing trend in the use of the Swedish system of gymnastics in education, based on P.H. Ling's ideas and principles. Her main duty on arrival was to train female teachers within the Board's schools until she was succeeded in 1893 by Madame Bergman Osterberg. Whilst the use of the Swedish system for boys was discouraged, it became very popular for girls in both elementary and secondary schools. In 1895, Madame Bergman Osterberg founded her own



teacher training college at Dartford, in Kent. This training college addressed the need for better-trained teachers of PE, and students leaving her college were well educated and greatly sought after. Although the emphasis was on the Swedish system of gymnastics, it was necessary for her students to keep up with national demands and so they were also trained to teach games. *“So it was that cricket, hockey, tennis and other games were included in the two years’ course, and the game of netball was adapted from Basket Ball”* (McIntosh et al, 1981, p. 205). Other training colleges soon followed, for example, Chelsea College in 1898 and colleges in Bedford, Liverpool, Bournemouth and Manchester. In 1899 some former students of Madame Bergman Osterberg met and formed ‘The Ling Association’. *“Its purpose was to band together teachers trained in the Swedish system, to protect and improve their status and to arrange meetings and holiday courses”* (McIntosh et al, 1981, p.207). It may be that these were among the first formally organised courses in PE available to teachers to extend their professional learning and develop their skills.

At the turn of the century, it would appear that PE was beginning to be recognised as more than just ‘playing’ games or going through the motions of military drill. Whereas PE had once been used to build character, instil discipline and enforce obedience, it was now being seen as a subject through which pupils could learn social skills and gain health benefits. McIntosh (1952), for example, argues that PE was being seen as a vehicle for promoting good health and there was also the belief that PE could be used for the benefit of society, in that it would encourage good morals and allow for deeper empathy of others. Some of the changes that took place during this period helped turn PE into a form that we might recognise today. Syllabi were introduced in 1904, 1909, 1919 and 1933, each of which encouraged a greater breadth of activities within PE, for example, camping and outdoor activities became popular trends in the 1930s. The need for better and more facilities was recognised by the government, and LEAs were encouraged to spend money on providing these:

*“(The 1918 Fisher Act) enabled local education authorities to provide holiday and school camps, centres and equipment for physical training. This legislation was merely permissive but during the next two decades many authorities availed themselves of the opportunity provided by the Act and, advised and encouraged by the Board of education, constructed good gymnasia, playing fields and swimming baths”* (McIntosh et.al., 1981, p. 212).

PE was thus being recognised as important and attempts were made to regulate it as a school subject. Although professional development for primary teachers appears to have been scarce, there is evidence of some guidance. The 1919 syllabus, for example, encouraged a child-centred style of PE teaching. Primary children were viewed as being different to older children and this meant a different teaching style was necessary:

*“Real progress too was made with the modification of exercises to suit younger children. Working to command and formal exercises gave place to activities and the use of apparatus, such as attractive coloured balls and bands. The climbing frame and the ‘junglegym’ made their appearance in playgrounds, while the work of Dalcroze and Ann Driver resulted in the extensive use of music and natural movement for young children” (McIntosh, 1952, pp.202-203).*

All these developments would have required teachers to adapt their teaching methods and expand their knowledge, but there is little evidence of systematic or formal attempts being made to help teachers do this. Much of the professional development during this period was therefore personal and the result of individuals seeking to further their knowledge and develop their teaching skills. Many, but not all of the professional development opportunities available, were provided for PE teachers by the Ling Association. An example of the Ling Association’s contribution to professional development was the professional journal published in 1908 and termly after that (Bailey & Vamplew, 1999). This journal provided valuable assistance to teachers of PE, especially those without any formal training. Other publications during this period included ‘Infantry Training’ in 1902 (McIntosh, 1952), which was a handbook published by the war office that aimed to help physical educators teach military drill. There were also 11 publications from the Board of Education between the dates of 1919 and 1927; McIntosh (1952) identifies these as:

- Syllabus of Physical Training for Schools (1919);
- Physical Exercises for Children under seven (1919);
- Suggestions in regard to games (1920);
- Syllabus of Instruction for Training Colleges (1921);
- Physical Exercises for Rural Schools (1924);
- Physical Training: The Team System (1924);
- Memorandum on the Planning and equipment of a Gymnasium for a Secondary School (1927);
- Syllabus of Physical Training: Extension to Older Girls (1927);
- Memorandum on Physical education in certain schools and classes able to give extended training (1927);



- Reference Book of Gymnastic Training for Boys (1927).

This list of publications covers a range of subject areas and so it was possible for teachers to find advice to support their PE teaching. The Syllabus of 1933 was especially influential and useful to teachers:

*“It contained fresh exercises and new teaching methods ‘with a view to the special encouragement of good posture and flexibility of muscles and joints’, but a large number of simple games were described and many free and vigorous ‘activity’ exercises were included. Its popularity as a handbook among teachers led to a great improvement in the physical education of children” (McIntosh et al, 1981, p.214).*

In addition to these publications, there were also courses and conferences that teachers could attend in order to develop their skills and expand their knowledge:

*“Some governing bodies of sport such as the Amateur Athletic Association and the Football Association ran coaching courses which helped raise the standard of teaching of games and sports and to redress the balance which was so much in favour of gymnastics” (McIntosh et.al., 1981, p213).*

McIntosh (1952) identifies that *“Between Easter 1913, and the end of 1914, 600 teachers in Sheffield attended short courses”* (p.158). There were also courses held from 1915 to 1919, provided by the Board of Education. These were four week courses which took place in August with the intention of improving the quality of PE teaching:

*“Vacation courses did something to compensate for the abandonment of ordinary physical training in the men’s colleges, and they provided a reservoir of teachers who were at least familiar with some of the principles and exercises of therapeutic physical training” (McIntosh, 1952, p. 178).*

There were also conferences that teachers could attend, for example, a conference was arranged by the Ling Association and concerned the teaching of games for girls. The Ling Association was also responsible for the provision of some demonstration PE lessons; these would have enabled teachers to observe so-called experts teaching, in order for them to learn new ideas and skills. Demonstration lessons were provided by Neils Bukh from Denmark, who was asked to demonstrate the Danish system to teachers in England:

*“The striking features of the Danish movements, their continuity, their rhythmic character, their emphasis on stretching and mobilising and their strenuousness, made a great impact on English teachers...After the first post-war demonstration organised by the Ling Association in the Albert Hall in 1921, they were held frequently up and down the country, and helped to popularise the gymnastic side of education” (McIntosh, 1952, p.203).*

In summary, the period 1850 to 1944 was one of change and development in primary education and primary PE.

### 3.4 A History of CPD (1944-1972)

The Education Act of 1944 sought to introduce a progressive system of education and to raise the school leaving age to 16. Progress was, however, hindered by the restructuring required after the war. The period immediately following World War Two was marked by three major themes in education: child-centred education, the rebuilding of school buildings and the training of teachers. The evacuations of the Second World War had overcrowded the country schools and prompted a new style of teaching. It is interesting to note that out of the chaos of war, there came the realisation that the old methods of teaching were not as effective as had once been thought. It would appear that for some teachers, the experience of war had helped create a push toward new methods of teaching; a theme which continued throughout this period:

*“The evacuation had its redeeming feature. Schools could only take part of their equipment into the reception areas, and often the accommodation used as schoolrooms was practically bare of conventional educational apparatus. Teachers were compelled to improvise, and to their astonishment, many of them found they could dispense with the aids that they had previously considered as indispensable. Work in the open air and of a definitely practical character took the place of formal class studies. Subjects like arithmetic, geography, and history began to have new meaning for pupils when studied at first hand. Handicrafts, art, and all kinds of physical activity became invested with a new importance, and the experience of these years influenced the curriculum and teaching methods when peace followed” (Curtis, 1957, p.375-376).*

The acceptance and utilisation of progressive methods of teaching continued as a theme throughout the fifties and sixties and culminated with the Plowden Report of 1967:

*“The basic philosophy of the report was one of controlled progressivism, and was influenced by research into child development, including that of Piaget. It favoured a balance of individual and class work, and preferred a transfer age of twelve or thirteen to that of eleven, thus encouraging the growth of interest in middle schools...the committee put forward a programme for stronger contacts between school and parents” (Lawson & Silver, 1973, p. 453).*



After the war, marriage rates and birth rates increased, resulting in a rise in the number of children of school age. This meant that there were not enough teachers for the number of children and class sizes increased: *“Classes containing over sixty children were not unknown”* (Barnard, 1961, p. 321). A teacher-training program was initiated as a solution to this problem:

*“To meet post-war needs, a scheme for the emergency training of teachers was introduced at the end of the war and over a period of six years some 35,000 prospective teachers attended one-year crash courses, some of them in colleges opened especially for the purpose”* (Lawson & Silver, 1973, p. 419).

Professional development from 1944 continued along similar lines to that of the period before, in that it was mainly personal and was not enforced by the government. In 1944, *The Handbook of Suggestions for Teachers* was republished and in 1949, teachers from the Newcastle region produced a book called, *'Basic Requirements of the Junior School'*:

*“Beyond this, a host of books and pamphlets canvassed the new child centred primary education. The Ministry of education produced pamphlets for both parents and children. M.V. Daniel, Nancy Catty and J.C. Gagg were only three among numerous authors who produced books for primary teachers”* (Lowe, 1988, p24).

Alongside the ideas of individuals such as these came the support of the educational press and journals, for example, *'The Times Educational Supplement'* and Journals such as, *'Education'* and *'The Journal of Education.'*

As well as changes in design and classroom management, there were also some technological developments that could be incorporated into school life and that altered the way lessons were delivered:

*“Overhead, closed-loop and slide projectors, record players, tape recorders, television sets (including closed circuit television) and other learning resources became considerably more widespread in schools in the sixties. Educational programmes on radio and television became more widely used in schools. Some secondary schools were acquiring computer terminals. The importance of the new techniques, as of the curriculum developments, lay in the challenge they presented to teachers, either to justify existing practices or adopt or modify new ones”* (Lawson & Silver, 1973, p445).

It appears that teachers may have been left to their own devices when adopting these new technologies into the classroom. Universities, too, had their role to play in the professional development of teachers, for example, the Institutes of Education were

responsible for carrying out educational research. They also provided refresher courses for teachers as well as allowing teachers to study for higher degrees in education. However, these institutes would have provided structured professional development opportunities for relatively few teachers.

The Plowden Report, mentioned earlier, had an influence on the direction of CPD and recommended that:

*“there should be a combination of individual, group and class work, and the trend towards individual learning was to be welcomed. Children should have access to more than one teacher. Teachers should work together more. Streaming in primary schools should be abolished” (Rogers, 1984, p. 90).*

These teaching ideas were made possible by changes in school design and management, for example:

*“From the 1950s a new range of equipment and techniques began to come into the primary schools...New approaches to the primary school timetable, open-plan school designs, experiments with family grouping, the increasing abandonment of fixed rows of desks, the conception of rooms as workrooms rather than classrooms – all these were growing features of primary education in the 1950s and 1960s” (Lawson & Silver, 1973, p.452).*

### 3.5 A History of PE-CPD (1944-1972)

In 1952, a new PE syllabus was produced, which differed in content and emphasis to that of 1933. Two books were produced to accompany the new syllabus and to help teachers deliver it. These were: ‘Moving and Growing’ and ‘Planning the Programme’. The first *“represented a short study of the movement of growing children. It covers stages of growth, different rates of development, ideas on the nature of the child and aspects of general movement” (Armour, 1986, p.17).* The second offered more autonomy to teachers in planning their lessons and schemes of work. These books replaced the previous, more formal syllabus and encouraged a child-centred approach to primary physical education:

*“Children were encouraged to explore space, to experiment with different ways of moving and to create their own ways of meeting challenges set by the teacher; again a reflection of child-centred ideals” (Kirk et al. 2002, p.159).*

The amount of time that children spent doing PE was left to the head teacher to decide and was to be based on an assessment of children’s needs.



Thus, the 1952 syllabus represented a clear shift from the rigidly planned lessons and suggestions of 1933 to a more autonomous approach. The two publications that accompanied the syllabus attempted to guide teachers in their use of the syllabus, however, it could be argued that much more support was needed for primary teachers as little in the way of professional development seems to have been offered to teachers:

*“All the time (in reading the new syllabus) one has the feeling that the writers are automatically assuming that all teachers of PE are a) full time specialists and b) burning with desire, which is of course far from true” (Edmundson, 1956, p. 5).*

The Plowden Report (1967) also placed a strong emphasis on the importance of children being allowed to find things out for themselves. As far as PE was concerned, the Plowden Report extended what had been suggested in the 1952 syllabus and promoted the expressive opportunities that dance and ‘movement’ offered. Plowden recommended that competitive games should only be introduced at the end of the primary school and suggested there were important differences between girls and boys, whose needs could be met through teaching them different games.

Physical Education after World War Two was slowly evolving to include a wider range of activities. Whilst gymnastics and dance remained popular, an increasing emphasis was being placed on other activities. Nets, walls and ropes became a familiar feature in primary school playgrounds and played an increasingly prominent part in physical education lessons. In addition to the increased use of apparatus for fitness purposes, apparatus was also being used in gymnastics lessons. It was not just the introduction of apparatus that marked a change during this period, but there was also a change in the terminology used. Whereas ‘posture’ had been a popular term in the period before, ‘movement’ was now taking its place. Laban’s influence and creative outlook were particularly welcomed during the 1940s and 1950s because of the increasing popularity of child-centred philosophies: *“The term movement, and phrases incorporating movement such as the art of movement, movement training, movement education came to be used more and more in place of dance”* (McIntosh, 1981, p. 226). Gradually, the idea of movement was dichotomised into movements involving dance and movements involving gymnastics. Games and swimming were also included in the timetable.

The term, 'fitness' became popular in the 1960s and 1970s. Fitness was seen as important during this time because it was recognised as a useful tool in combating health problems such as heart disease and obesity. The benefits of physical fitness were acknowledged and it was hoped that schools could foster an interest in and an enjoyment of exercise that would stay with children into adulthood:

*“Parents and schools have an important role to play in fostering positive attitudes to exercise in all young people and not merely in the sporting elite, in the hope that active lifestyles which are established early, will last into maturity and old age” (Sports Council in Britain, cited in McIntosh, 1981, p. 231).*

In summary, this period was marked by developments in Education that sparked a need for structured CPD and PE-CPD.

### 3.6 A History of CPD (1972-2005)

In 1972, the James Report was published and was a major step forward for professional development. This was the first official recommendation that teachers should continue their training after qualifying. Teacher training was seen as falling into three consecutive stages or cycles: the first, personal education; the second, pre-service training and induction; the third, in-service education and training. The Committee gave priority to the latter and recommended that:

*All teachers in schools and full-time staff in further education colleges should be entitled to release with pay for in-service education and training on a scale equivalent to no less than one school term in every seven years of service...and as soon as possible the entitlement should be written into a teacher's contract of service” (Browne, 1979, p. 213).*

It was also recognised that the involvement of schools, universities, advisory services and colleges of education would benefit education and help with future developments.

The James Report set the wheels in motion for the professional development that followed. Professional development before this date had been largely personal, as Bradley (1991) commented: *“Until the 1970s there had been little in the way of planned attention to the needs of the individual”* (p. 9). The James Report alerted teachers and politicians to the importance of high quality professional development. It was hoped that there would be:



*“in-service education and training opportunities aimed at ending the over dependence on initial preparation. Throughout a teacher’s career the third cycle (concerning in-service training) would provide a wide range of relevant courses and activities for which there should be an entitlement to paid secondment for a minimum of one term in every seven years of service” (Evans, 1985, p. 185).*

Two projects emerged from this Report. ‘The Teacher Induction Pilot Schemes (TIPS) Project’ and ‘The Schools and In-Service Teacher Education (SITE) Evaluation Project’. These two projects are particularly relevant for this research because they sought to define effective professional development and how this could be implemented in schools. The TIPS project evaluation report, funded by the Department of Education and Science (DES) (1973-1978) to evaluate these themes, *“concluded that all three features were valued by the new teachers and by their head teachers”* (Bolam, 1994, p.36). The findings of this project and subsequent report were disseminated through conferences, publications and handbooks and, in 1978, the DES produced a booklet titled, ‘Making Induction Work’. This was sent to every school in England and Wales and was designed to act as guidance to teachers and schools. The second project, The SITE project, funded by the DES (1978-1981) put forward the following recommendations:

*“Schools should designate staff development co-ordinators, formulate their own INSET policy and use school-based methods; that LEAs should support them in this approach; and that the national funding arrangements for INSET should be changed to facilitate the approach” (Bolam, 1994, p. 37).*

Again, the findings were disseminated, and it was these findings that lead to further developments for CPD. As a result of the findings from the TIPS and SITE projects, further research was conducted and publications produced. These included; ‘The School-Based Staff Development Project’ (1980-1982) and ‘The Guidelines for Review and Internal Development in Schools (GRIDS) Project’ (1981-1983). There were two papers produced by the DES during this period that were concerned with improving schools and teachers, these were: ‘Teaching Quality’ (1983) and ‘Better Schools’ (1985). The titles of these would suggest that professional development would be a key priority but is unclear how these translated into practice even though ‘Teaching Quality’ identified a need for *“better induction arrangements and more in-service education and training in line with the general thrust of the James Report”* (Evans, 1985, p. 191).

Professional development was being seen as important, not only because of the recommendations of The James Report, but also because of three other reports that informed education during this time. The Bullock report: 'A Language for Life' was published in 1975 and sought to alter the way English was taught. The report suggested that teachers did not teach children to read for pleasure and this was identified as a failing. The Cockcroft Report: 'Mathematics Counts' was published in 1983 and did for maths what the Bullock report had strived to do for English. Its suggestions for the teaching of mathematics included; using a wider variety of teaching methods, encouraging children to enjoy the subject and enabling them to be exposed to a range of mathematical experiences. The Warnock report (1978) was concerned with the education of special needs children. Thus, teachers needed training to teach children with special needs and they would also have had to be aware of new disciplinary methods that replaced the corporal punishment of previous years. These three reports highlighted a need for changes to teaching methods and greater differentiation between pupils.

Professional development had been identified as essential in the early 1970s and research was carried out to establish some of the best ways of providing in-service training. There are some examples of professional development that occurred during this period, but given its emphasis in the James Report, one might have expected more. HMI played a small role in providing guidance for teachers and one inspector, Edith Biggs, was:

*"given the task of influencing the teaching of mathematics in primary schools. She worked principally by running short courses for teacher trainers and for teachers with the help of other HMIs, teacher trainers, LEA advisers and some teachers" (Thomas, 1990, p. 64).*

This took the form of short courses and included sessions on how to teach children number and more applied areas, such as measuring and data display. As well as these short courses, the DES provided longer courses for teachers in universities and colleges. Teachers' Centres set up local committees that met for courses and: *"established libraries, which included Schools Council Publications and a workshop with tools and equipment for producing teaching materials"* (Thomas, 1990, p. 69).



Another advance for professional development, both in terms of government recognition of its importance and increasing availability was the introduction of 'Baker Days' in 1986, named after Kenneth Baker, the Education Secretary who was responsible for their introduction. These consisted of a minimum of 5 professional days each year for teachers to acquire new skills, extend their knowledge and enable them to cope with change. They are often referred to as INSET days and continue to be held five times a year in schools today (2005). The original intention was that whole-school issues could be addressed and staff could have access to professional development opportunities relevant to their individual needs and to the needs of the school. A report published by the National Foundation for Educational Research (NFER) (Harland, Ashworth, Atkinson, Halsey, Haynes, Moor & Wilkin, 1999), however, reveals that this is not always the case. Their main findings were:

*"Most schools still take their NCDs (non-contact / inset days) as single, one-off days, although two aggregated days or twilight sessions were also fairly common... It was evident that factors outside of the school's own control may dictate the timing of NCDs, rather than the school's own needs and preferences. There was relatively little evidence that the focus of the days or the need to follow up and support ongoing developments determined the timings of the days... Discussion in small groups, listening to a presenter, and question-and-answer sessions with a presenter accounted for two-thirds of the activities observed during NCDs" (p.3).*

The idea of appraisal also became popular at this time (Bolam, 1994), and in 1986, a pilot study was set up to investigate the best means to develop teachers. It was assumed that teachers needed to identify their skills, discuss the way they taught and be provided with opportunities to further their knowledge and skills. The 'School Teachers' Appraisal Pilot Study' was thus set up and the results published in 1989. The findings of this study led to the recommendations that teachers should have an initial meeting with a designated member of staff where strengths and weaknesses were identified, they should be given the chance for paired observations, have appraisal interviews to discuss progress and then a statement should be produced identifying targets for the teacher:

*"A number of experiments have been set up to try to establish a satisfactory method of appraisal. One approach involves each teacher undertaking a form of self-evaluation. Helped by an external observer (the head of the school or a senior member of staff) the teacher is invited to determine his strengths and weaknesses and to list priorities for personal development. These priorities, for example, might be expressed through a request to teach a different age group or to be given time to take a specific course" (Pluckrose, 1987, p. 83).*

Appraisal has recently been replaced by the new Performance Management scheme (Smith & Reading, 2001). Performance Management is similar to the old style of appraisal and has retained many of its features. Teachers are appointed a performance management leader, with whom they set targets and are given opportunities to discuss and reflect on their own practices. It is intended to be a yearly cycle and teachers are expected to make attempts to achieve their targets.

Whilst there has been increased attention on professional development in recent years and there has been some limited research into effective practice, there is little published evidence on the form INSET took in schools. Bradley (1991) does, however provide a list of suggestions, which may indicate some of the possible and best ways to provide INSET. These suggestions include a wide variety of different forms such as lesson observations, visits to other schools, reading publications, undertaking research, leading other teachers and job rotation. In the 1980s, attempts were made to use the *“cascade process, in which some ‘super trainers’ passed the message to some ordinary trainers who passed it on to someone from each school who passed it on to the rest”* (Bradley, 1991, p.85).

More recently, there have been many developments that have warranted a need for extensive provision of professional development for practising teachers, including the implementation of the 1988 Education Reform Act (ERA), curriculum development, the Special Educational Needs (SEN) Code of Practice, the Qualifications and Curriculum Authority (QCA) and their recommended schemes of work, OFSTED inspections and the Literacy and Numeracy strategies for primary teachers. There have also been policies that refer specifically to professional development: Performance Management, the induction year and the new CPD strategy are of particular importance. The CPD strategy was published by the Department for Education and Employment (DFEE) on 1st March 2001:

*“The strategy offered an extra £92 million to fund two new professional development opportunities – Sabbaticals and Early professional development – and extend three existing programmes – professional bursaries, Best Practice Research Scholarships and teachers’ international professional development”* (DFEE, 2001, leaflet).



Teachers are required to keep a professional development record to help them keep track of the professional development they have undertaken and what they might need in the future (DFEE, 2001). The scheme provides funding for courses and supply cover. Smith & Ingersoll (2004) identify three types of training: pre-service, in-service and induction. The third of these, the Induction year has played an important role in developing newly qualified teachers. They stress the importance of good quality inductions and indicate that Newly Qualified teachers given access to induction programmes are more likely to stay in the profession because they are more satisfied with their jobs:

*“The most salient features were having a mentor from the same field, having common planning time with other teachers in the same subject or collaboration with other teachers on instruction, and being part of an external network of teacher” (p. 706).*

Newly Qualified Teachers (NQTs) are assigned a mentor and an induction tutor with whom they can discuss everyday teaching issues. The induction tutor is responsible for providing opportunities to discuss progress and set targets for the future. NQTs also have their lessons observed, are entitled to non-contact time, are encouraged to attend courses and may observe other teachers' lessons:

*“All new teachers are required to complete a statutory induction year in order to have their qualified teacher status confirmed and to be eligible to teach in a maintained school in England. The policy includes both statutory assessment of the new teacher against induction standards, which reaffirm and extend the standards, which all teachers have to meet to qualify in the first place, and a national entitlement to support and professional development. This entitlement includes:*

- *a 10% reduction of teaching load;*
- *regular meetings with a named induction tutor, including half-termly reviews;*
- *an individualised programme of support and monitoring;*
- *a half-termly observation of their teaching;*
- *a termly assessment meeting;*
- *a job description in which the demands are ‘reasonable’ ”.*

*(Williams, 2003, p. 208)*

These provisions enable NQTs to learn from and with more experienced teachers, whilst Teacher Networks (Lieberman, 2000) provide a contemporary outlet for sharing ideas and resources. Clark (1996) defines this as:

*“Networks constitute the basic social form that permits inter-organizational interactions of exchange, concerted action, and joint production. Networks are unbounded or bounded clusters of organizations that, by definition, are non-*



*hierarchical collectives of legally separate units. Networking is the art of creating and/or maintaining a cluster of organizations for the purpose of exchanging, acting, or producing among the member organizations” (Clark, 1996, p. 142).*

Examples include ‘TeacherNet UK’, which is a web-based online learning community; The National College for School Leadership (NCSL) networked learning group; and The GTC network for those who lead CPD in schools.

### **3.7 A History of PE-CPD (1972 – 2005)**

Professional development in PE since 1972 has become more organised and this is illustrated by a number of schemes, such as TOPS and The British Amateur Gymnastics Association (BAGA) awards as well as the necessity to gain swimming or lifesaving qualifications, which have provided in-service opportunities for teachers. As in previous periods of history, The Ling Association, which became the Physical Education Association of the United Kingdom (PEA-UK) in 1956, continued to provide much of the professional development available to teachers of PE:

*“Throughout the 1970s and 1980s conferences and study courses continued to be organised... The Association had long supported the concept of in-service education being well aware that, in a rapidly changing world, teachers could not hope to provide an up-to-date professional service based solely on their initial training. For many years it had actively promoted the idea by the provision of its conferences and courses” (Bailey & Vamplew, 1999, p.109).*

Despite the Ling Association’s enthusiasm for professional development, there were factors outside of their control that prevented them from providing the services that they believed to be so essential. These included pressures of time, supply, finance and support. The PEA-UK standing study group on primary physical education produced a report titled: ‘Local Authority Schemes and Initiatives of In-service Training’ (1983). This pointed to areas of concern within in-service provision, which are arguably still evident in 2005. These included: lack of LEA provision and funds, reduced advisory services, lack of support from head teachers, poor initial training and the problems associated with releasing teachers to attend courses:

*“Teachers were finding ‘increasing difficulty’ in obtaining financial support from local education authorities to support their attendance... from April 1987 schools were made directly responsible for meeting the in-service needs of their teachers from within their own budget” (Bailey & Vamplew, 1999, p.109).*



As well as providing courses and conferences for teachers, the Ling Association continued to produce publications in order to keep teachers informed. The British Journal of Physical Education was published throughout the 1990s and in 1997 they published the European Journal of Physical Education (now Physical Education and Sport Pedagogy). By 1991, their 'Primary Focus' supplement had a subscription of over 1,500 schools (Bailey & Vamplew, 1999).

The Ling Association and subsequently the PEA–UK helped with two initiatives that were aimed at raising the standard of PE in schools. As a consequence, teachers would have had professional development opportunities made available to them:

*“Two campaigns were launched. One on quality physical education set criteria and standards for schools to meet in order to be designated as an institution which displayed a physical education curriculum of quality. Eventually this became ‘Sportsmark’ following the government’s 1995 report on ‘Raising the Game’. Another which dealt initially with primary education games skills was extended in 1994 to include schemes for pre-school children. In 1992 a successful bid was made to the Sports Council for major funding to work with the standing conference on Physical Education and the British Association of Advisors and Lecturers in Physical Education to develop a national, co-ordinated framework for the development of resources and in-service training for teachers” (Bailey & Vamplew, 1999, p. 110).*

The Local Education Authorities (LEAs) were also responsible for providing CPD or in-service training. The 1944 Education Act gave the LEAs the power to assist and maintain the schools in their areas. They provided some inset for the teachers within their areas and an advisory service to advise teachers on all aspects of the curriculum. This role, however, changed following the 1988 Education Reform Act when an increased emphasis on monitoring and inspecting meant that there were fewer advisors (Evans & Penney, 1994). There was also a shift in the way money was made available for in-service training. Schools were allocated funds by the LEAs and were free to choose how they spent it. Some schools chose to buy back the LEA’s services but the funding was often limited and in-service provision was reduced. Evans & Penney (1994) cite an inspector’s concerns for PE as a result of this change:

*“I have lost any sort of access to directly controlling any funding at all within PE. I can’t buy equipment to help schools, I can’t lay on a course because I think it’s appropriate...It isn’t the fact that the course isn’t appropriate that it doesn’t run, it’s because the budget in the schools doesn’t enable sufficient flexibility” (p. 531).*



Despite an apparent lack of PE-CPD provision, there have been some recent developments. The Youth Sport Trust (YST), for example, has developed a range of resources accompanied by progressive schemes of work for pupils of primary and secondary age. TOP Play is provided for KS1 and Top Sport for KS2. As part of this, the YST provide training for primary teachers which covers invasion games, net and wall games, striking and fielding games, dance, gymnastics, outdoor activities, athletics and swimming.

More recently, the Professional Development Board for Physical Education (PDB-PE) has been established to:

*“assure the quality of Continuing Professional Development of all teachers of physical education for the benefit of young people and to raise standards in physical education... The role of the board is to provide a CPD framework embracing the range of career development routes... to design and implement a strategy for the quality assurance of professional development provision for teachers of physical education” (PDB-PE, promotional leaflet, 2002).*

As was mentioned in the introduction to this thesis, two recent strategies have initiated major changes in PE: The School Sport Partnerships and the PESSCL strategy. The PESSCL strategy was launched in 2002 and aims to *“increase the percentage of school children in England who spend a minimum of two hours each week on high quality PE and school sport within and beyond the curriculum”* (DFES, 2004, p. 4). The School Sport Partnerships (previously School Sport Co-ordinator Programme) form one aspect of the PESSCL strategy, aiming to create partnerships of schools within local areas. These are usually affiliated to a Specialist Sports College and are managed by a Partnership Development Manager (PDM). Links are made with secondary schools through the School Sport Co-ordinator (SSCo) and with primary schools through a Primary Link Teacher (PLT). The programme has six strategic objectives:

- *strategic planning: to develop and implement a PE/sport strategy*
- *school liaison: to develop links, particularly between Key Stages 2 and 3*
- *out-of-hours: to provide enhanced opportunities for all pupils*
- *school to community: to increase participation in community sport*
- *coaching and leadership: to provide opportunities in leadership, coaching and officiating for senior pupils, teachers and other adults*
- *raising standards: to raise standards of pupils' achievement (OFSTED, 2004, pp.1-2).*



An independent evaluation of the national CPD programme is being conducted by the Institute of Youth Sport (IYS). Two key findings from the 2005 report were:

1. *through their support for primary school teachers Partnerships have had a substantial impact on the quality of PE and sport teaching in primary schools”*
2. *The programme of CPD for PLTs and primary school staff has had a substantial impact in increasing the confidence, knowledge and skills of primary school staff and improving the quality and range of PE and sport available to primary school pupils” (p.5).*

Another aspect of the PESSCL strategy, is the National PE-CPD Programme (England), which aims to ensure high quality PE provision in schools. The programme provides training courses and resources in PE for primary and secondary schools:

*“The National PE-CPD Programme aims, through the provision of high quality professional development for those involved in teaching physical education and school sport, to improve the quality of teaching, coaching and learning in all schools” (Armour & Fraser, 2004a, p. 8).*

The programme is managed and delivered by a consortium of representatives from BAALPE, PEA-UK, Sports Coach UK and the YST. The programme is implemented through Local Delivery Agencies (LDAs):

*Schools throughout England will have access to specially developed resources and modules are designed to meet teachers’ professional development needs and therefore lead to improved learning for pupils (Armour & Fraser, 2004a, extract from Research proposal, p. 59).*

Some of the key findings from an evaluation of the first year of the programme (Fraser & Armour, 2004b) are summarised below:

- *“effective CPD is that which is active, relevant, interesting and has a good leader. ‘Active’ CPD is defined as that which is, for example, practical, hands-on and participative” (p. 6).* In addition to these features, teachers questioned also cited that effective CPD was fun, provided resources and ideas, and was motivating.
- Ineffective CPD included CPD that was not tailored to teachers’ individual needs, was poorly organised or presented, lacked focus or was boring.
- The teachers wanted to learn more about dance, gymnastics, specific sports, assessment and key stage transition.

The findings about effective and ineffective CPD are not dissimilar to the findings discussed earlier in this chapter. The report, therefore, stresses the importance of

providing CPD that takes these features into account. There is some evidence that this is happening, for example, teachers want CPD to be tailored to their individual needs, and the CPD Programme includes an audit of individual and school needs prior to undertaking any CPD. It is also promising to note that one LDA lead trainer reports:

*“CPD in this area had ‘come to a standstill’ and the national programme has helped to restart it. It has helped the LDA to move away from the previous ‘quick fix’ CPD approaches” (Armour & Fraser, 2004b, p. 54).*

It is important to consider the developments within the national CPD programme, which despite having minimal (if any) impact upon the teachers in this project, will have implications for the conclusions drawn and recommendations made as a result of this research. The National PE-CPD Programme hints at the types of CPD that teachers in England find to be effective and ineffective as well as identifying the areas of PE-CPD that teachers want. Research by Armour & Yelling (2003a, 2003b, 2004a & 2004b) helps to clarify and extend this understanding.

### **3.8 PE-CPD Research**

#### **3.8.1 An overview of Armour & Yelling’s research**

Armour & Yelling (2004 a) state that there have been few research projects which study PE-CPD. Indeed much of the research literature regarding PE-CPD in England is the result of a research project undertaken at Loughborough University (Armour & Yelling, 2003, 2004a, 2004b, 2004c). This research concentrates on the provision of CPD for secondary PE teachers but tentative links can be drawn to the situation in primary PE. The research project at Loughborough University was preceded by research into PE teachers’ Lives and Careers (Armour & Jones, 1998; Armour, 2001) and this is also informative. In addition to this, Keay’s (2004) unpublished PhD thesis also addresses the issue of PE-CPD.

The teachers in Armour & Yelling’s (2004 a) study were asked to complete an open-ended questionnaire designed to create a CPD profile of each teacher. They were asked to list their CPD experiences, identify effective and ineffective CPD experiences, outline what they wanted from CPD in the future, suggest how CPD



providers could make CPD more effective for them and identify an important learning outcome of PE for their pupils (Armour & Yelling, 2003). Thus:

*“Sixty-five experienced PE teachers (37 men and 28 women) completed and returned their profiles. They had between 6 and 29 years experience of teaching PE and included teachers with many different roles in PE (e.g. advanced skills teachers, heads of departments, directors of sport and teachers responsible for particular aspects of the PE curriculum)” (Armour & Yelling, 2004a, p. 75).*

In addition to these 65 profile questionnaires, ten teachers were selected as case studies and were involved in in-depth interviews (Armour & Yelling, 2003; 2004c). The researcher also attended CPD activities with these case study teachers and they were asked to keep reflective diaries so that learning opportunities could be noted. A key finding from this phase of the research was the value teachers place on ‘unofficial’ CPD. The teachers placed more value on this type of CPD, which includes learning with and from colleagues, than they did on traditional forms of CPD. The teachers, for example, confirmed some of the failings of the traditional model:

*“I’d like her [the course leader] to come in, do battle with twenty girls*

*It’s ideal... there’s only a small number of you know kids... In my school that doesn’t work so to me it’s pointless” (Armour & Yelling, 2004c, p. 4).*

### 3.8.2 What PE-CPD have teachers undertaken

Armour & Yelling (2004a) identify eight categories of PE-CPD undertaken by teachers in their research:

- *“Sport-specific update courses (226 mentions)*
- *Curriculum planning/development/assessment (153 mentions)*
- *Departmental and pupil-management courses (91 mentions)*
- *First aid and safety (37 mentions)*
- *ICT training (25 mentions)*
- *Conference attendance (25 mentions)*
- *Academic and personal (24 mentions)” (p. 77).*

In summary, Armour & Yelling (2004a) argue that the teachers’ PE-CPD was rarely progressive or coherent; most PE-CPD was undertaken away from the teachers’ schools and lasted for one day; the courses that were longer than a day were often held at weekends and were focussed on attaining a coaching qualification. The teachers’ profiles indicate that there has been little in the way of health and fitness CPD, despite teachers identifying this as an important outcome of PE for pupils.

### 3.8.3 Effective PE-CPD

The teachers in Armour & Yelling's (2004a) research identify six ways in which PE-CPD can be effective:

1. Practical (37 mentions)
2. Relevant and applicable (44 mentions)
3. Able to provide ideas and practices (55 mentions)
4. Delivered by a good presenter (29 mentions)
5. Challenging and thought provoking (17 mentions)
6. Able to offer time for reflection and collaboration (24 mentions)

These findings are similar to those from the teachers' surveyed for the evaluation of the National PE-CPD Programme and mirror previous findings about effective CPD detailed earlier in this chapter. Finding number 6 is of particular relevance to this research and an issue that Armour & Yelling explore in their 2004c paper.

In conclusion to their research with experienced secondary school PE teachers, Armour & Yelling (2004c) put forward a number of 'practical suggestions' to enhance the quality and relevance of PE-CPD and these are noted here as they are relevant to the conclusions drawn from this research:

- *“Design CPD so that it is based upon best knowledge about learning and, in particular, on models of effective teacher learning (Guskey, 2002; Garet et al, 2001)...*
- *Look at the learning needs of professional development providers (Stein et al, 1999). They are wedded to their current forms of provision and change from it will be a difficult journey.*
- *Encourage schools to view themselves as learning organisations... and to make effective teacher learning a priority (Newmann, 1994; Mayer et al, 2003).*
- *Encourage PE teachers to take the lead in their own professional development – to build upon their tentative and subversive professional learning communities and to demand PE-CPD that meets their learning needs and the needs of their pupils” (p. 5-6).*

### 3.8.4 Keay's research on NQTs and CPD

Keay's (2004) research is concerned with the NQT induction year and highlights a number of problems with NQT induction in England. She argues that induction



arrangements in PE are often unsatisfactory and ‘*merely assures competence*’ (p. 4), rather than ensuring the NQT meets with the required induction standards. This competence is in contrast to an induction year that fully develops teachers and embraces them into the profession and thus many NQTs find that ‘proper’ CPD does not start until the induction year ends. One finding from Keay’s research was that NQTs:

*“valued the practice exhibited by their experienced colleagues, particularly their male colleagues... What NQTs learn about their role from their colleagues may be more influential than any number of courses and teachers therefore must be aware of their potential influence” (p. 8).*

This lack of structured CPD in an NQT’s first year is an important consideration in this research; indeed one of the teachers interviewed was an NQT who was struggling to teach PE. Moreover, the identification of the role of other teachers in the professional development process is central to this research and will be returned to throughout the thesis.

### **3.9 Traditional vs. Reform CPD**

The developments within CPD and PE-CPD have been traced since 1850 and whilst CPD has become more structured, it is often organised with traditional models in mind (Garet et al, 2001). Garet et al (2001) identify within-district workshops, courses for college credit, out of district workshops and out of district conferences as ‘traditional’ forms of professional development, and teacher study groups, teacher collaboratives, or networks, committees, mentoring, internships and resource centres as ‘reform’ types of professional development. Garet et al (2001) conclude that traditional forms of CPD are often ineffective because they take place off-site and provide little, if any, contextually relevant follow up or support. ‘Reform’ professional development is more closely linked with social constructivist learning theory and involves on-site, collaborative learning. The case is made that reform type professional development is more likely to be effective because it is easier to maintain and is relevant to teachers’ practice in their own schools and contexts.

Traditional forms of professional development, such as off-site courses, have also been the primary means of professional development in the UK and it could be argued that the focus has often centred on teaching teachers new facts and skills, rather than

focusing on teachers' learning. If the success of a professional development activity is measured solely on the amount of information that is presented to teachers, then many activities could be viewed as successful. However, if it were measured by the knowledge and skills that teachers learn, put into practice and that impact upon the quality of pupils' learning then the extent to which it is effective could be challenged. This is one reason for considering the use of reform types of CPD. However, for reform types of professional development to be utilised, major changes are required at all levels. For example:

*Just as teachers need to relearn their teaching practice, so will experienced professional developers need to relearn their craft, which traditionally has been defined as providing courses, workshops and seminars (Stein, Smith & Silver, 1999, p. 237)*

*Because direct teaching is currently much of what the public and many districts consider staff development, it is important that teachers, administrators, and policymakers become aware of new and broader conceptions of professional development. (Lieberman, 1995, p.592)*

### **3.10 Conclusion**

As was argued at the beginning of this chapter, a knowledge of past CPD initiatives is helpful for providers of future CPD. A history of CPD and PE-CPD has been presented in this chapter and it has been argued that CPD provision in the past has been largely unstructured and insufficient to meet teachers' needs. A traditional style of PE-CPD has been provided in the past and this is usually off-site, sport-specific and arguably an ineffective means of provision. Armour & Yelling's research and social constructivist learning theory hints at the potential of school-based, collaborative learning as a strategy for professional development in PE and it was with this in mind that two models of professional development were designed and evaluated in two case study schools. The following chapter details the methodology used in this research and outlines these models of PE-CPD.



## Chapter 4: Methodology

### 4.1 Introduction: some personal reflections

This chapter outlines the methodology and choice of specific research methods used in this research. It is a description, an analysis and a rationale. Attempting to understand how experience comes to shape a researcher's beliefs involves reflecting upon a number of assumptions and these ontological, epistemological and methodological assumptions underlie the belief systems that ultimately inform paradigmatic preferences. The assumptions informing this research will be discussed in more detail in the following sections. Firstly, however, I will document the personal experiences, largely informed by my academic background, which have helped to shape these assumptions.

My limited experience of science at school indicated that in any research, all the variables within an experiment needed to be controlled, the experiment repeated and the results compared to a 'control'. This seemed an appropriate way to approach a scientific experiment; it was methodical and it followed a prescribed set of rules. Designing laboratory experiments was easy because the chemicals, plants and physical components generally all behaved in the way the text book suggested they would. This understanding of science was challenged when I embarked upon a degree in psychology and new methods of research were introduced and deemed to be acceptable. Whilst very different to the controlled laboratory experiments in science at school, they were structured and they followed some recognisable scientific principles. I came to understand that the sample size was very important and that although the variables were harder to control, we must do our best to control them all. It was also very important to consider the sample and make sure it was representative of the population as a whole. Again, these core principles made sense and the idea of statistical analysis only added to the validity of the 'experiment'. I did not challenge these assumptions. It was not surprising, therefore, that the concept of qualitative research came as a bit of a shock. Case study research, small sample sizes, no statistical analysis, seeking people's opinions, unrepresentative samples, to name a few, challenged almost everything I had been taught and accepted at university. As I embarked upon my research, I questioned the research methods I had previously been taught and consequently employed, recognising, instead:

*“The social world, I discovered, was not mechanistic, but dynamic and changing, encapsulated by the symbolic systems of thought and language through which human beings fashion their physical and social universe” (Stringer, 1996, p. 8).*

I am not sure of the precise point when I made the shift from quantitative researcher to qualitative researcher. Put simply, this shift involved a change from observing **what** happened, to focusing more closely on **why** it happened. I am unsure whether this is a permanent shift, as I haven't ruled out using a range of approaches in my future research. I believe it was the research questions and the practicalities of conducting this research that ultimately led me to alter the way I approached it. Indeed, Johnson & Onwuegbuzie (2004) argue that purist research may be limiting and propose a third paradigm that utilises a mixture of methods, where the focus is on answering the research questions rather than reinforcing the underlying philosophical beliefs. Combining methods in such a way, they contend, is useful because it allows a wider range of research methods to be used that are more appropriate to answering the research question. Whilst this research utilises qualitative methods, some of these methods do tend towards quantitative design. An example of this is the closed nature of parts of the questionnaires.

Having outlined my academic background and attempted to explain how I have evolved as a researcher, it is helpful to link some of my experiences to the academic literature. The three differing styles of research that I have experienced illustrate examples of research paradigms presented in the literature. A paradigm is more simply understood as a belief system (Guba & Lincoln, 1989); it refers to the way in which the world is interpreted and understood. During my GCSEs and A-levels<sup>3</sup>, I was conducting research within a controlled laboratory setting assuming that the answers to my questions could be discovered through well designed experiments. This approach to research is often referred to as positivism. Guba & Lincoln (1985) attribute positivism to the publication of John Stuart Mills' 'A System of Logic' in 1843. Positivism assumes an objectivist reality and is more often associated with rigorous 'scientific' method. According to positivists, meanings are waiting in the

---

<sup>3</sup> Public examinations in England at age 16 and 18



world to be discovered and the objective truth can be found through well designed experiments.

During my undergraduate degree, I engaged with research that tried to establish norms amongst a sample of a population in order to generalise those to wider populations. This research was often positivist in its approach although it did employ some qualitative methods. If research is seen as a continuum where positivism stands at one end and interpretive research at the other, then the research I was conducting within my psychology degree fell somewhere in the middle, perhaps loosely within post-positivism (Denzin & Lincoln, 1994). Post-positivism assumes that there is a reality to be captured but that this reality can never fully be apprehended and so it relies on a number of methods and a rigorous research design to come as close to capturing this reality as possible. However, the research presented in this thesis, which was interpretive and sought subjective and multiple truths, did not fall within positivism or post-positivism. This research is focussed on finding out about what teachers do, why they do it, what they know and how they have to come know. It searches for reasons and explanations and assumes that individuals have choices, albeit not always free choices, and that who they are and what they know are a result of their interactions with their world and with others in their world. I have had to consider how history and structures within society have played a part in shaping who these teachers are and what they know. This research, therefore, was based upon interpretive assumptions. It drew upon social constructivist theory and employed qualitative methods.

## 4.2 The Interpretive Paradigm and Social Constructivist Theory

A paradigm is more easily understood as a belief system (Guba & Lincoln, 1989). Patton (1978) defines 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).*

Whilst there are merits in rehearsing the paradigm debates of the past and present, there is little space for all of them here, moreover, this has already been done by a number of key researchers, both within and outside the fields of sport, education and PE (see, for example, Kuhn, 1970; Lincoln & Guba, 1985; Denzin & Lincoln, 2000;

Sparkes, 1992). Instead, the following discussion critically analyses the assumptions underlying the interpretive paradigm, examines social constructivist theory and establishes the rationale for the approach taken.

When considering the beliefs and assumptions that underlie any paradigm, it is important to consider and explain the epistemological (whether knowledge is acquired or the result of experience) and ontological (whether reality is out there in the world or the product of one's mind) assumptions that underlie the research. Whilst this research fits closely with constructivist beliefs, I did not approach it as a constructivist theorist, I approached it as a teacher. Constructivist theory, however, does encompass many of the assumptions made within this research and is the one that most closely resembles the beliefs that informed the research:

*“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” (Denzin & Lincoln, 1994, p.14).*

Social constructivism, in particular, provides a useful and appropriate perspective within which to locate this research. Thus, the case study schools and teachers that form the basis of this research are viewed as existing within society, and this society is situated in time and influenced by history and culture. The point to be made here is that knowledge and meaning are created or constructed within a social system and through interactions with that system and other people within it. Guba & Lincoln (1985) help to clarify this:

*“Events or situations are theoretically open to as many constructions as there are persons engaged in them, or as many reconstructions by a single individual as imagination allows” (p. 77).*

The way a researcher sees the world is reflected in choice of methodology and this is informed by beliefs concerning the nature of reality, i.e. ontological beliefs. Firstly, two opposing beliefs concerning reality co-exist within the research world: these are realism and relativism (Chalmers, 1996; Cohen, Manion & Morrison, 2000). A realist would attempt to seek the ‘absolute truth’ about a situation and this is a priority for positivist researchers. In contrast to this, relativists seek to explore possible meanings that a situation evokes and thus rather than attempting to find one single truth or meaning, they accept that meaning is relative to the individual and the contexts within



which the research is conducted. This relativist understanding is a key tenet of social constructivism, allowing for a number of possible interpretations and understandings. However, it is difficult to discuss ontology without referring to epistemology, which considers the nature of knowledge. This knowledge needs to be considered so that the nature and quality of the knowledge that is eventually generated from the data can be assessed. Within positivist research the absolute, objective truth is sought, whereas constructivism allows for a 'softer' truth, one that is reached through more subjective methods. This is illustrated by Stringer (1996):

*"The aim of (constructivist) inquiry 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" (p. 41).*

A second issue to be discussed is that of voluntarism vs. determinism (Cohen, Manion & Morrison, 2000). This debate refers to the extent to which social structures influence a person's actions. At the extreme end of voluntarism, it is believed that people have complete free will and that their behaviour is largely unaffected by wider social structures. The opposite of this is the belief that people's actions are wholly caused or constructed by social structures. A more widely held position would be somewhere between the two (Giddens, 1984) and that is the position of this research. As a researcher, I accept that people's actions, thoughts and opinions are influenced by their experiences and their interactions within society.

The assumptions made here thus fit with social constructivist beliefs; a relativist or multiple reality is assumed and it is acknowledged that there is unlikely to be one absolute truth especially in the context of schools and teaching. This is important as it determines the methods of data collection and data analysis and these will be discussed later in this chapter. Having outlined the paradigm underpinning this research and the associated philosophical assumptions, the discussion will now turn to address the type of research that has been employed here: qualitative research. Although interpretive research can employ quantitative and qualitative methods, qualitative methods were chosen as the most appropriate for this research.

### 4.3 Qualitative Research

*"Qualitative research is multi-method in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative*



*researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them. Qualitative research involves the studied use and collection of a variety of research materials – case study, personal experience, introspective, life story, interview, observational, historical, interactional, and visual texts – that describe routine and problematic moments and meanings in individual's lives. Accordingly, qualitative researchers deploy a wide range of interconnected methods, hoping always to get a better fix on the subject matter” (Denzin & Lincoln, 1994, p. 2).*

The research questions, which sought deep understandings and personal opinions meant that a particular style of research was likely to be appropriate, and this was further informed by my own experiences within the world of teaching, which implied that a personal approach would be beneficial (Greenbank, 2003). My ‘insider’ knowledge of time constraints, financial limitations and school structures suggested strongly that a qualitative approach would be favourable. Gillham (2000) provides a list of 6 benefits of employing qualitative methods. Of these, the third reason is particularly illustrative here - Qualitative methods, according to Gillham (2000) could be employed to: *“explore complexities that are beyond the scope of more ‘controlled’ approaches”* (p11).

Qualitative research, although being criticised for its lack of scientific credibility does offer a means of uncovering multiple meanings from multiple realities, as Sparkes (1992) argues *“In a world of multiple realities, multiple truths exist”* (p. 36). Crotty (1998) provides some clarification of this point:

*“Truth or meaning comes into existence in and out of our engagement with the realities in our world. There is no meaning without mind. Meaning is not discovered but constructed. Different people may construct meaning in different ways, even in relation to the same phenomenon”* (p. 8-9).

By adopting a qualitative approach, the researcher is attempting to gain access to these multiple truths and realities, as identified by Sparkes (1992).

In addition to the benefits outlined above, Gillham (2000) discusses the philosophical basis of qualitative research and identifies three main points in support of it. These are:

- *“Human behaviour, thoughts and feelings are partly determined by their context. If you want to understand people in real life, you have to study them in their context and in the way they operate.*



- *'Objective' research techniques – abstracted, controlling – can produce results that are artefacts of the methods used. An artefact is something that only arises because of the method that has been used (like controlled memory experiments in a laboratory or 'opinions' given in a questionnaire). You get results but are they 'true' for the people concerned in the practice of real life?*
- *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. 'Objectivity' can ignore data important for an adequate understanding" (p. 11-12).*

It is clear then that qualitative research has some advantages for the study of a complex phenomenon such as teachers' learning within the complexities of the social setting of a school. Burton (2001) has suggested that the methodological choices made by the researcher are not important as long as their philosophical position is made clear and justification for their methods provided. Gillham (2000) adds: *"You use the methods (and therefore the underlying philosophy) which are best suited to what you are trying to find out"* (p. 5-6). These two viewpoints summarise some of the principles behind choosing qualitative methods within this research but could be criticised for providing a simplistic rationale for a very complex decision. Greenbank (2003), for example, argues that it is the researcher's own personal values that lead to the adoption of certain methods. He does not criticise the researcher for this but does emphasise the importance of the researcher acknowledging these values within a report, thus allowing the reader to judge the research for themselves. These considerations are now further discussed under the heading of reflexivity.

#### **4.4 Reflexivity**

My previous experiences and the impact these have had upon this research have already been partially explained in the previous sections, but there are further points to be made. My experiences as a 'scientist' in school and a 'researcher' at university had moulded me into approaching the writing of scientific reports in a particular way. At secondary school, even if I was working alone, I had to adopt the use of the pronoun, 'we'. At university I was expected to remove myself completely from the research process and not use any pronouns at all, referring to what I had done in the third person. I accepted both of these conventions and so it was quite surprising not only to be allowed to locate myself in the research but to be actively encouraged to do so. Kleinsasser (2000) indicates that *"first person voice signals(to) the reader that the*



*researcher views her or himself (as) integral to the research*" (p. 160), and this is how I have positioned myself. In fact once started, I did not find this change in writing style difficult as I had always found it hard to remove myself from research of which I had been a part. Indeed, Kleinsasser (2000) explains that adopting the use of the first person should be useful to the research and states that it is more than just "*coming clean in an apologetic and confessional manner*" (p. 161). Rather, it should help the researcher and the reader to understand the philosophy behind the research and allow the reader to judge the research in a more informed manner. Furthermore, not only did I have to consider where I would position myself and how I would refer to myself, I also wanted to locate the teacher respondents in the research in an appropriate way. I have, therefore, chosen to refer to them as 'teachers', rather than subjects or participants, because this is how I saw them and how I treated them within the research. They were not subjects upon whom I did research. They participated in the research process but to call them 'participants' would be to distance them from myself and the roles they played. This could possibly have made them appear less human and therefore less real.

Reflexivity, is however, more complex than the decision to write in the first person or to refer to the participants as teachers. In this research it also refers to the relationship between the researcher and the researched; the degree to which the researcher used her own experiences as a teacher to illustrate and explain the data; and how the data may have been subjectively interpreted. Toma (2000) suggests that a qualitative researcher can approach these issues in one of two ways:

*"Qualitative researchers can approach their subjects in two ways. The first is to attempt to be objective – to consciously avoid the personal involvement that might bias a study. Although most such qualitative researchers appreciate that it is impossible for researchers to be truly objective, many believe objectivity should nonetheless be the standard to which researchers hold themselves. Just as in most quantitative work, the ideal is that it is inappropriate for the values of the researcher to enter into the research itself.*

*A second approach is for researchers to accept involvement and bias as inevitable and to work towards finding meaning through building close relationships with subjects. Subjective researchers view the relationship between the research and subject as subjective and transactional...In a subjective relationship, researchers and subjects collaborate to determine meaning, generate findings, and reach conclusions. The research relationship is a partnership. It is not a series of detached observations about subjects by intentionally uninvolved researchers...In fact, good data for subjective*



*researchers is the product of just these strong connections between researchers and subjects. These connections allow for the rich descriptions of contexts and experiences that are the essence of good qualitative data” (p.177).*

The importance of establishing connections is illustrated by Toma (2000); this was a key consideration in this research and focused my attentions on building up good relations with the teachers. Reflexive research is still more diverse than this, however. A reflexive piece of research is also one in which the researcher actively reflects on the research findings and the research process. This may be done through dialogue with professional peers or participants in the research, or written accounts such as field notes. Rather than just observing or recording what has happened, the reflexive researcher attempts to understand how and why it has happened. In many instances these answers are not clear and so the researcher, in the absence of undisputed facts, uses his or her informed judgement to interpret and explain the data or seeks clarification from the research field through a process of member checking (Lincoln & Guba, 1985; Cresswell & Miller, 2000). This draws on the work of Geertz (1975), who writes of the researcher as being like an ‘instrument’ within the research process. Whilst there are obvious criticisms of such a ‘subjective’ approach, there are also many advantages:

*“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).*

*“Without collecting more data, reflexivity enables the researcher to present a more passionate, wise, and rich account” (Kleinsasser, 2000, p.157).*

*“Rather than decrying the fact that the instrument used to gather the data affects this process, we say that the human can be a marvellously smart, adaptable, flexible instrument who can respond to situations with skill” (Lincoln & Guba, 1985, p. 76).*

Through this process of reflexivity, it is hoped that data can become rich and more detailed. Certainly within this research, my own experiences as a teacher helped me to make sense of the data and as Greenbank (2003) argues, value-neutral research is not achievable:

*“those who profess to carry out value-neutral research are deluding themselves. They are also misleading others by presenting their research as depersonalised and value free... Even before data is analysed, interpreted and*



*presented, the researcher's method of sampling, experimental design or questionnaires are likely to reflect their (often unconscious) values" (p. 792).*

Greenbank (2003) contends that if value-neutral research is not achievable then reflexivity should be used as a tool to overcome this, thus "*the inclusion of reflexive accounts and the acknowledgement that educational research cannot be value-free should be included in all forms of research*" (pp. 798-799). This is not to say that by including a reflexive account in the methodology, the researcher has established the credibility of the research, nor should the researcher's values completely obscure their respondents. A more credible solution would be for the researcher to attempt to achieve different levels of detachment, where appropriate, and use methods such as triangulation, rigorous design, feeding-back to participants and a grounded approach to ensure that their own biases do not take centre stage (Greenbank, 2003). The issue of credibility will be returned to later in the chapter.

The data I collected consisted of taped conversations, field notes, questionnaires and recorded observations. Inevitably I had to interpret the data and I acknowledge some bias in so doing. My own experience as a primary teacher has given me valuable insights into the world of the primary school and that experience, whilst impacting upon my interpretations, has also helped me to understand what I saw and what I was told. Moreover, Silverman (1997) argues that in order to make legitimate knowledge claims, researchers should have lived or experienced their material or be part of a group to truly understand. I also acknowledge that this familiarity may have caused me to miss or overlook certain things. Nonetheless, whilst my interpretations may have been biased, they were also well informed. This approach is based on an ontological belief that there is no single truth or reality and there are many possible realities that can be interpreted.

With regard to the relationships I had with the teachers, I was fortunate to be conducting research with both familiar and unfamiliar teachers. This provided a useful contrast in my experience as a researcher but also created some problems. The teachers with whom I was familiar were colleagues and in some cases friends. I respected and understood their worlds and their teaching situation and I empathised with them. I know what it is like to be pressed for time and how hard it is to find time for initiatives that are enforced by the school, LEA or government, and so to ask these



teachers voluntarily to give their time was a potential problem. Although I was offering something that I hoped would, ultimately, help these teachers in their PE teaching, I also felt very guilty about asking for their time. Thus it was very hard to ask for interview time or push them to complete questionnaires and I was always conscious of their needs when I was planning CPD meetings. Hubbard, Brackett-Milburn & Kemmer (2001) write of the emotions that can be involved in research and suggest that these are inevitable but that it is important to acknowledge them:

*“Sometimes, however, either the particular topic or the emotions it evokes in the respondent can result in a sharing of experiences which are so close to those of the researcher that the maintenance of any kind of professional detachment becomes extremely compromised. Here, her own feelings begin directly to enter into the interaction and the need to share experiences as a friend or supporter becomes irresistible” (Hubbard et al., 2001, p. 129).*

*“Researchers may feel a great impulse to help the people in the investigation and, must often throw in the towel on doing research and give themselves over entirely to ‘helping’ ” (Hubbard et al. 2001, p. 125).*

At the start of the research I was able to be more professionally detached in one of the case study schools (School B), where I had no previous professional engagement, however, I quickly made friends and built up relationships with these teachers too. Essentially, despite being in the roles of researcher and researched, we were also professional colleagues, and could be seen as teachers who were, together, striving for solutions to everyday problems. In short, it was important to build trust and respect with the teachers in this research but, in so doing, I also made it hard to conduct the research. On the other hand, this personal relationship is also seen as positive by some authors:

*“Because subjective qualitative research is inherently personal, researchers cannot and should not hide their attachment to the topic and persons they study. The attachment is what makes the two-way data collection process work... Involvement is also what allows for the rich description of context that is the hallmark of good qualitative research. Engagement gives the descriptions of various contexts their power and elegance as well as their true usefulness to policy analysts, researchers and practitioners. When subjective qualitative research works, it is when researchers describe contexts in ways that bring them alive” (Toma, 2000, p. 182).*

Labaree (2003) has also highlighted ‘problems’ that the teacher-researcher may face, while acknowledging that professional experience and dedication to education can serve as a positive factor in the research process. The problems identified that are



particularly relevant here include the conflict between wanting to understand a situation as a researcher and wanting to fix the problem as a teacher:

*“From the teacher’s perspective, the scholarly approach to education may seem coldly distant and unconsciously concerned about student outcomes... The initial impulse is still to intervene and fix the problem... This often leads to an approach to scholarship that (and eventually to a kind of scholarly literature) is relentlessly, unrealistically, sometimes comically optimistic – one that suggests that there is an implementable answer to every educational problem and that help is always on the way” (Labaree, 2003, p. 18).*

This problem is highlighted in my research in a number of different ways. Firstly, I was often keen to rush in and solve problems in the school before taking enough time to analyse those problems and consider all of the solutions or, more importantly, note how the teachers themselves addressed them. Secondly I wanted to design something that would make a difference; the CPD packages were designed to help the teachers and make an instant difference to the teaching of PE in the schools for these specific teachers and pupils at this specific time.

In addition, Labaree (2003) warns that generalising in education research is problematic because *“The general rule of teaching is that general rules don’t help very much. The exception is the norm because every case is different”* (Labaree, 2003, p. 19). Moreover, Labaree (2003) suggests that as a teacher, the researcher can recall many events that disprove many (or all) of their generalisations, and for this reason, teacher-researchers may find it hard to reach conclusions. I have included many of my own experiences in this thesis but they should be viewed as useful additions to illustrate certain points rather than being a main focus. Mason (2002) offers a final warning for researchers:

*“It is important, however, that you focus your reflexive efforts meaningfully and strategically on the research itself, and that you resist the temptation to use your research to showcase ego-centric or confessional tales about yourself, which may do little to illuminate your research practice or problem, or to help you to make sound research decisions” (p. 5).*

#### 4.5 Research Strategies

Having located the research within a general framework of interpretive research, this discussion will now consider the specific research strategies and methods employed. In summary, this research consisted of two ‘phases’ conducted in two case study



schools. The following table is an overview of the research, showing the timing of the research activities and illustrating how these overlapped.

Autumn term 2002	Spring Term 2003	Summer Term 2003
Observed PE lessons in both schools	Continued to observe PE lessons in both schools	Weekly CPD sessions on Tuesdays after school at school A
Became familiar with schools, staff and pupils	Discussed format of CPD interventions with PE co-ordinators and staff in both schools	Weekly CPD sessions on Wednesdays after school in school B
Conducted 2 interviews in school A	Conducted 2 more interviews in school A	Prepared session handouts
Attended PE co-ordinators meeting/course	Prepare lesson plans for both schools	Administered PE and CPD history questionnaires
	Ordered and sorted athletics equipment into colour coded boxes	Administered questionnaires to rate the effectiveness of the CPD interventions
	Preliminary meetings in school A to discuss the sessions, lesson plans and equipment	Observe impact of CPD sessions on PE lessons in school A
	Attended basketball course	

Thus, the first phase identified the case study teachers' CPD and PE-CPD histories, which helped to explain why they were teaching PE in the ways that were observed. This first phase used a case study approach and interviews, observations and questionnaires as research methods. The second phase of the research was also conducted using a case study approach. Within this second phase, a form of action research was used to provide and evaluate two models of CPD for athletics, and the

potential of CPL as a strategy for CPD. Questionnaires and observations were used within this phase of research. Denzin & Lincoln (1994) identify case study, ethnography and action research as research *strategies* and research *techniques* such as interviewing and observation as *methods* used within these strategies. I will firstly discuss case study and action research and then my choice of methods used within these two broader strategies.

#### 4.5.1 Case Studies

Case studies were chosen as they offer the potential of gaining access to a rich source of data and a deep understanding of the complexities of institutions such as schools. Two case study schools were selected. School A was chosen because I had previously taught there for two years, therefore I knew the staff, the pupils and the contexts within which they were working. School B was chosen because in many ways it provided a contrast to school A in terms of its catchment area and also my own familiarity with it. Both schools were located close to my work and home and were thus accessible in terms of time and travelling expenses. Another key consideration was that I had to consider choosing schools that would enable me to learn from them. Not only did I want to compare two different schools, I also felt that being familiar with one school and not with the other would provide an interesting research challenge. More in-depth details concerning these two schools will be provided later.

Perhaps the first task in explaining the decision to use case study as my main strategy is to attempt to define what is meant by a case study. Defining and describing a case study is a particularly difficult task. Lincoln and Guba (1985), for example, write “*While the literature is replete with references to case studies and with examples of case study reports, there seems to be little agreement about what a case study is*” (p. 360). Sturman (1994) provides a concise definition; “*Case study is a generic term for the investigation of an individual, group or phenomenon*” (p. 61), whilst Yin (1984) extends this by describing a case study as “*an empirical inquiry that investigates a contemporary phenomenon within its real-life contexts*” (p. 23). Although useful, these definitions do not encompass the key features of case study research as used in this research. Gillham (2000) extends the previous definitions and provides an explanation that is more detailed:



*“A case can be an individual: it can be a group – such as a family, or a class, or an office, or a hospital ward; it can be an institution – such as a school or a children’s home, or a factory; it can be a large-scale community – a town, an industry, a profession. All of these are cases; but you can also study multiple cases: a number of single parents; several schools; two different professions. It all depends on what you want to find out – which lead us on.*

*A case study is one which investigates the above to answer specific research questions (that may be fairly loose to begin with) and seeks a range of different evidence, evidence which is there in the case setting, and which has to be abstracted and collated to get the best possible answers to the research question. No one kind or source of evidence is likely to be sufficient (or sufficiently valid) on its own. This use of multiple sources of evidence, each with its strengths and weaknesses is a key characteristic of case study research” (p.1-2).*

Gillham provides a helpful start to defining what constitutes a case study. However, Cohen and Manion (1989), provide another useful insight:

*“Unlike the experimenter who manipulates variables to determine their causal significance or the surveyor who asks standardised questions of large, representative samples of individuals, the case study researcher typically observes the characteristics of an individual unit – a child, a clique, a class, a school or a community. The purpose of such observation is to probe deeply and to analyse intensively the multifarious phenomena that constitute the life cycle of the unit with a view to establishing generalisations about the wider population to which that unit belongs” (p. 124-124).*

Other authors have attempted to identify the defining features of case studies by classifying them into categories. Stake (2000), for example, identified two types of case study – intrinsic, which focuses on the individual case and instrumental, which studies a number of cases to understand a wider puzzlement (Bassegy, 1999).

In another classification, Stenhouse (1985) identified ‘four broad styles of case study’: ethnographic, evaluative, educational and action research case studies. An ethnographic case study is a single case studied in its own right through participant observation and interview. An evaluative case study aims to provide an evaluation of policies, programmes etc. and may be a single case or a collection of cases. An educational case study aims to “*enrich the thinking and discourse of educators either by the development of educational theory or by refinement of prudence through systematic and reflective documentation of evidence*” (Stenhouse, 1985, p.49). Finally, an action research case study “*is concerned with contributing to the*



*development of the case or cases under study by feedback of information which can guide revision and refinement of the action” (Stenhouse, 1985, p. 49).*

Yin’s (1993) categorisation is similar but involves just three categories; exploratory, explanatory and descriptive, which he defines as:

*“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).*

These categories help to locate the key features of case study and provide a framework for undertaking my own research. Thus, for the purposes of this research, the ‘case’ is taken to mean a particular school, the teachers and pupils within it, and the interacting variables that construct PE and PE-CPD in that school in its wider social context. Referring back to the above definitions of a case study and the distinctions between them, my use of the term case study has features of Stenhouse’s (1985) educational and action research studies, or Yin’s (1993) descriptive case study and Stake’s (2000) instrumental case study. Thus, ethnographic methods were employed, description and explanation sought, theory analysed and developed, and the case studied to shed light on a wider ‘puzzlement’.

A further issue in case study research is that of ‘generalisation’. The question is whether a case study provides sufficient evidence to generalise findings to similar populations. Stake (2000), for example, writes:

*“Case study is part of scientific methodology, but its purpose is not limited to the advance of science. Single or few cases are poor representations of a population of cases and questionable grounds for advancing grand generalisations” (p. 448).*

Gorard (2002) criticises some case study research for what he terms ‘overclaiming’ and suggests instead that the design of a ‘natural experiment’ be central to educational research. The use of a control or comparison group, he suggests, will provide a ‘warrant’ for certain conclusions and make educational research more accurate and useful. The assumption is that case studies are often singular and because of this, the findings cannot be statistically analysed based on the laws of probability. In short the sample size is too small and causality cannot be inferred. However, it can also be



argued that this criticism is ill-founded because case study researchers may not be claiming to be able to generalise their findings to the wider population, although Williams (2002) argues that such generalisation may be implied. It might be more accurate to say that case studies can be used to find trends and similarities rather than to generate theories or certainties. In support of this, Crotty (1998) suggests that:

*“Outcomes are suggestive rather than conclusive. They will be plausible, perhaps even convincing ways of seeing things – but certainly not any one way of seeing things” (p. 13).*

Moreover, the constructivist assumptions underlying this research indicate that there is unlikely to be one generalisable conclusion and the value of describing each individual reality is favoured over generating one overall reality. Nonetheless, if case study researchers are not claiming to be able to generalise their findings, the worth of their research can be questioned. In response to this, Stenhouse (1985, p.49) argues that generalisation is not an essential research outcome, suggesting that it is more important to produce:

*“Case reports on which the reader could exercise judgement.. the task of the case study is to produce ordered reports of experience which invite judgement and offer evidence to which judgement can appeal”.*

In support of this, Stake (2000) writes: *“The purpose of the case study is not to represent the world but to represent the case”* (p. 448); and Lincoln and Guba (2000) point out *“The trouble with generalisation is that they don’t apply to particulars”* (p. 27). In this respect, every case is important in its own right.

Much of the literature concerning generalisation attempts to justify the use of case study by identifying a dichotomy between two research paradigms. Examples of this include: Stake’s (1995) petite generalisation versus grand generalisation; Yin’s (1984) statistical generalisation versus analytic generalisation; Stenhouse (1980) predictive generalisation versus retrospective generalisation; and Bassey’s (1998) statistical generalisation versus fuzzy generalisation. In acknowledging this dichotomy, these authors appear to be suggesting that you can generalise from a case study but perhaps not in the same way or to the same extent that you can generalise in research with a representative sample. Moreover, it is argued that this does not make the case study any less useful. The debate continues and clearly this research cannot resolve it. However, by recognising the key issues, I can guard against over-claiming (Gorard,



2002). I hope to be able to make a ‘petite’ or ‘fuzzy’ or ‘retrospective’ generalisation from this research. I am not claiming that these findings will *always* be the case but that in some circumstances they *could* be the case. This stance would support Bassey’s (1998) notion of fuzzy generalisation:

Statistical generalisation

*“in p % of cases it will be found that x leads to y. It arises as a result of careful sampling of a population and it can be expected that any other careful sampling of the same population will give the same result” (p.5)*

Fuzzy Generalisation

*“in cases similar to the cases I have studied it may be found that x leads to y” (p.5)*

Bassey provides a useful vehicle by which to judge the value of case studies. In addition, Cronbach’s (1975) notion of ‘the working hypothesis’ is helpful. Cronbach proposes that instead of generating grand generalisations, it would be more useful to use the outcomes of a piece of research as a starting point for the next. This also applies to the second research strategy: action research. Action research is often used in small-scale studies with a small sample size, and so the arguments and suggestions used for generalisability in case study research can also be applied to action research.

#### 4.5.2 Action Research

*“Formal research operates at a distance from the everyday lives of practitioners, and, although it provides interesting theoretical perspectives about the nature and complexities of social life, it largely fails to penetrate the experienced reality of their day-to-day work. The objective and generalizable knowledge embodied in social and behavioural research is often irrelevant to the conflicts that practitioners encounter, or has little impact on the difficulties they face... Action research is based on the assumption that the mere recording of events and formulation of explanations by an uninvolved researcher is inadequate in and of itself. A further assumption is that those who have previously been designated as “subjects” should participate directly in research processes and that those processes should be applied in ways that benefit all participants directly. Community-based action research is a derivative of this approach to inquiry” (Stringer, 1996, pp. 6 - 7).*

Action research is a strategy that can make use of a range of research methods, however, given its emphasis upon involvement and participant benefit, it tends towards interpretive and qualitative methods.



Two factors were important in designing the second phase of the case study; the first was that the process needed to be collaborative, and secondly it needed to produce findings that would be practical and useful to teachers; action research has the potential to enable both these things to be achieved. Action research emphasises research that is done with people rather than on people (Heron & Reason, 2000), and it was therefore particularly useful given my view of myself as a teacher and researcher. I reasoned that the findings would be more useful if they were situated within the ‘real world’ of teaching and action research within a case study allowed for this. I was hoping that the teachers within each of the two case study schools would explore issues of CPD and PE with me, the researcher, in a joint collaborative inquiry. A hybrid approach to action research was chosen because it supported and developed the principles of collaborative learning and provided a non-scientific framework to my research. In support of this, Stringer (1996) states:

*“Community-based (action) research starts, as does all research, with a problem to be solved. Unlike traditional approaches to research, however, its goal is not the production of an objective body of knowledge that can be generalised to large populations. Instead, its brief is to build collaboratively constructed descriptions and interpretations of events that enable groups of people to formulate mutually acceptable solutions to their problems” (p. 143).*

Action research emphasises the importance of groups of people working together within a situated Community of Practice (Wenger, 1998). This was important within this research as it encouraged an environment and processes similar to those of constructivist and collaborative learning:

*“Both constructivism and action research, as well as PAR (participatory action research), are designed to ‘foster reciprocal mutual learning’ among participants (Mctaggart, 1991; Udas, 1998)” (Lincoln, 2001, p. 127).*

It is a strategy that also allows for and embraces the role of the researcher as a ‘facilitator’. This meant I could legitimately be a part of the research process as a researcher, whilst also being an occasional practitioner as a supply teacher or helper in the lessons I observed.

Action research can be traced back to research practices in the USA in the 1950s and to other traditions of teacher research in the UK and Australia; it has not, however, always been accepted as ‘scientific research’. Zeichner (2001) provides a more detailed account of the history of action research, but it was useful for me to have



some understanding of its origins and a summary is provided for this reason. In 1953, Stephen Corey promoted the idea that teachers would benefit from playing a part in the research process and thus the Horace Mann-Lincoln Institute for School Experimentation was formed. The institute devised a cyclical process of research, which involved the teacher in the decision-making process. As might have been expected at the time, Corey's action research was criticised and researchers found it hard to get their work published and so its use in America declined until the 1980s. In the 1960s, in the UK, the teacher-as-researcher movement (Stenhouse, 1975) emerged and encouraged research in schools with strong similarities to action research. Action research in Australia emerged in the 1970s and emphasised the notion of teachers as producers of knowledge. In the 1980s in America, a new teacher research movement developed and emerged at a time when qualitative methods were becoming more acceptable. More recently, teachers in America have formed research communities (e.g. Cochran-Smith & Lytle, 1992) in collaboration with academics and in the 1990s a research tradition emerged that differed to the previous ones. Early action research in education focused primarily on primary and secondary schools but academics in colleges and universities had started to employ action research as a means to research their own teaching and this has become known as self-study research (e.g. Bullough & Pinnegar, 2001) and now takes place in schools too.

Defining action research is not an easy task as it can look different depending upon the many contexts in which it may be employed:

*“To give a comprehensive definition of the term at this stage is difficult because usage varies with time, place and setting. Nonetheless, we may offer a conventional definition and use this as a starting point: action research is small-scale intervention in the functioning of the real world and a close examination of the effects of such an intervention” (Cohen & Manion, 1989, p. 217).*

Action research is a broad term that can be employed to study a number of essentially similar processes: co-operative inquiry (Heron & Reason, 2001); teacher as researcher (Stenhouse, 1975); collegiality; and, as is the case here, collaborative professional learning. Within action research there are a number of different ‘types’: action science (Friedman, 2001); participatory action research (Borda, 2001); community-based action research (Stringer, 1996); action inquiry (Torbert, 2001); educational action research (Zeichner, 2001). For the purposes of this research, community-based



action research and co-operative inquiry most accurately describe the research that was conducted in the two case study schools. Reason & Bradbury (2001) choose to clarify the definition of action research by identifying three 'broad pathways' of action research: First-person action research, Second-person action research and Third-person action research. First-person action research is the type of inquiry in which an individual practitioner might engage as part of everyday practice. It is reflective and results from practitioners critically assessing their performance and learning from their experiences. An example of this could be a teacher experimenting with different behaviour management strategies and discovering which approach works best in certain situations and with certain children. Second-person action research involves a more interactive approach to inquiry, where practitioners seek solutions to their problems by engaging in dialogue with their colleagues. Within teaching, this could take the form of discussing different ways of teaching, trying them out and then reflecting on their successes and failures. Third-person action research moves away from an individual institution, to involving the wider community and within teaching could include neighbouring schools and colleges. Communication is, therefore, a key issue and the distance between institutions means that casual exchanges are no longer possible and the research process becomes more formalised. Each type of action research may help to inform practice at individual, school and community level and thus all three types of action research, as identified by Reason & Bradbury (2001) may feed into the knowledge pool to be utilised by another; indeed, they argue that "*the most compelling and enduring kind of action research will engage all three strategies*" (p. xxvi).

If these distinctions are accepted, then classifying this research within an 'action research' framework could be questioned. Cohen & Manion (1989), however, provide similar distinctions but allow for the presence of an outside researcher:

*"First, there is the single teacher operating on his own with his class. He will feel the need for some kind of change or improvement in teaching, learning or organisation, for example, and will be in a position to translate his ideas into action in the classroom...second, action research may be pursued by a group of teachers working co-operatively within one school, though of necessity functioning against a bigger backdrop than the teacher working solo. They may or may not be advised by an outside researcher. And third, there is the occasion – perhaps the most characteristic in recent years – where a teacher or teachers work alongside a researcher or researchers in a sustained relationship, possibly with other interested parties"* (p. 220).

Cohen & Manion's distinctions fit closely with those of Reason & Bradbury's (2001) but provide a description of action research that fits this research and allows for the presence of the researcher in the action research process.

In practice, action research has been described as a cyclical process of reflection and action. Heron & Reason (2001), for example, describes four phases within an action research project. These include the initial meeting, the research phase, the reflective phase and the redeveloping and revising of new ideas so that the cycle can repeat itself. A key feature of action research, therefore, is that it is a constant process of monitoring, feedback, modification and adjustment (Cohen & Manion, 1989) or "*plan, act, observe, reflect*" (Stringer, 1996, p. 39). Stringer (1996) explains that action research is a continuing spiral of 'look, think, act':

*"In the first phase – look – participants define and describe the problem to be investigated and the general context within which it is set. In the second phase – think – they analyze and interpret the situation to extend their understanding of the natures and context of the problem. In the third phase of the process they act to formulate solutions to the problem" (p.39).*

It is thus clear that any action research project needs to be viewed as an ongoing process and, interestingly, this is identified in the literature as a key feature of effective CPD (Day, 1999; Garet et al., 2001). The research here attempted to adopt such a spiral where the teachers were encouraged to look at their practice, think about what could be done to improve it, change their practice accordingly and then reflect upon those changes. Although I, the researcher, defined the initial problem, the teachers were encouraged to engage with me in this spiral. Thus, each week throughout the fieldwork, the successes and failures of the previous week's lessons were discussed and suggestions made for the following week.

As previously stated, action research is concerned with identifying and solving problems in practice. Stringer (1996) suggests that prior to identifying a problem, researchers must:

*"become familiar with the complexity that surrounds them...to construct systematically a picture of the situation...and to formulate a preliminary understanding of their situation" (p. 40).*



As a teacher, I was already familiar with primary schools as institutions, and as a former teacher in one case study school, I was familiar with how that particular school 'worked'. The main purpose of the lesson observations in phase I of this research was to gain an insight into how PE was being taught by each teacher in each school. This was done in preparation for phase II, which was the 'action' phase. Stringer (1996) provides some guidelines for establishing initial contact and a role within the research. Based on this he proposes three 'elements' for the researcher to consider: agenda, stance and position. To summarise these points, he suggests that researchers take care to do the following:

- *Present themselves as resource persons;*
  - *be aware of their dress and appearance;*
  - *establish their purpose in non-threatening terms;*
  - *associate with all groups, formal and informal;*
  - *be visible;*
  - *be accessible;*
  - *meet in places where each of the stakeholder groups feels at home.*
- (Stringer, 1996, pp. 48-49)*

Once the researcher has become familiar with the setting, then the next task is to identify problems and potential solutions. In this research, the key purpose differed for the researcher and the teacher practitioners. The researcher wanted to know whether and how collaborative professional learning could be used to enhance and support teachers' learning about teaching PE. In order to do this, the researcher wanted to see how PE was already being taught in these schools and whether PE could be restructured to resolve some of the problems I observed. Thus, in a sense I, as the researcher, was defining the problem and devising the solutions to that problem. The teachers, however, had their own set of problems that they collaborated to solve. They wanted to explore ways of teaching PE more effectively and were also involved in weekly problem-solving activities based on their experiences of the previous week so, in this sense, I was acting as a facilitator within this process. Furthermore, I was actively involved within the 'look, think, act' process because I was not only present at meetings, I was also an occasional supply teacher and helper in one school and so I was involved with the teaching of PE, as would be appropriate in action research.

The practical considerations involved with setting up the action research cycle have been discussed but there are further practical and organisational considerations to be

addressed. These include the practicalities of arranging meetings and agreeing on the frequency and format of the meetings that occur throughout the research process:

*“Meetings don’t ‘just happen’; careful planning and preparation must take place to ensure that participants can work through their issues and attain their objectives without the distractions of poorly articulated activities, inadequate materials and equipment, or conditions that are uncomfortable or irritating” (Stringer, 1996, p. 71).*

Practical issues that need to be considered are who will attend the meetings, who will lead or direct the meetings, what the meeting rules are, how the meetings will be structured, who will make the decisions and where the meetings will be held. These are all factors that need to be considered in order to create a relaxed, friendly and supportive atmosphere. Stringer (1996) proposes that the action researcher also needs to ensure that relationships are equal, harmonious, accepting, cooperative and sensitive; that communication is attentive, accepting, comprehensible, truthful, sincere, appropriate and advisory; and that participation is involving, active, supportive, successful and personal.

As an action researcher, my role was to observe the situation in each school, think about what could be done to improve it and then facilitate learning when teachers adopted the new practices. As Stringer suggests:

*“In community-based action research, the role of the researcher is not that of an expert who does research but that of a resource person. He or she becomes a facilitator or consultant who acts as a catalyst to assist stakeholders in defining their problems clearly and to support them as they work toward effective solutions to the issues that concern them” (Stringer, 1996, p. 22).*

The teachers, whilst solving many problems amongst themselves with minimum input from me, were not expected to generate the new knowledge that was required to teach specific PE skills and so, on some occasions, my role as an action researcher was challenged and I had to act as an expert rather than as a facilitator, thus fulfilling Stringer’s (1996) role of a resource. Whilst this issue and the teachers’ reliance on me as an expert will be discussed later in this chapter, Schein (2001) does provide some explanation for my (sometimes) dominant role *“The research agenda is defined by the researcher or change agent, and the subjects or targets become involved as a result of researcher initiatives”* (p. 228). At times, the very topic of my research, PE, meant that teachers needed specific expert input to enable them to progress their learning.



I have previously described action research as incorporating strategies that are similar to those identified within CPL. CPL requires a sensitive approach and a supportive environment based on trust and professionalism and action research mirrors this in many ways: *“Because it brings people’s lives, and sometimes private lives, into the public arena, it requires a great deal of tact and sensitivity”* (Stringer, 1996, p. 41).

Action research was thus chosen for this research because it focuses on improving practice for people within specific contexts. It does not claim to be able to generalise its findings to the population as a whole but it does aim to help practitioners solve problems within their specific contexts. In this sense, it was useful to employ action research as a research strategy because it allowed and enabled collaborations between teachers whilst giving me, the researcher, a legitimate reason to participate. In a research project that was seeking to explore the potential of CPL as a form of CPD for primary teachers in PE, action research proved to be a complementary research strategy.

#### **4.6 Validity and Reliability**

It was important to me, as a researcher and as a teacher, that this research would be useful to the PE teaching profession and in order for this to be the case, it had to be valid, reliable and credible. Put simply, validity refers to the strength of the research conclusions and whether they are the “right” conclusions, whereas reliability is concerned with whether the research tools measure what they are claiming to measure. A piece of research can be judged to be valid if the inferences from and interpretations of the data are seen to be credible and accurate (Creswell & Miller, 2000, p. 125). Notions of validity and reliability are traditionally associated with the positivist paradigm and are, arguably, in conflict with social constructivist beliefs (Lincoln & Guba, 1985). For this reason, it has been important to consider other criteria, more suited to qualitative research, which will serve a similar purpose and allow the reader to make judgements about the credibility of this research.

Creswell and Miller (2000) suggest credible research can be achieved at three levels and without using traditional positivist criteria. Firstly, the researcher needs to engage in the research process and gather enough data for his or her interpretations to be

accurate and informed; secondly the researcher may allow the participants to clarify and confirm these interpretations; and thirdly the researcher may seek guidance and confirmation from people external to the project. This research met all three of these criteria; the researcher aimed to gather extensive data from the teachers in the research and the contexts in which they were working. A narrative was produced of the teachers' CPD experiences prior to and during the research and the teachers were sent copies. They were asked to read the narrative, comment upon it and return it. They were also given opportunities throughout the research process to clarify and expand on their thoughts and experiences. Within the interviews, questions were often rephrased and answers checked to confirm that an appropriate interpretation had been made, and the extensive field notes taken throughout the research meant that other issues or queries could be explained. Outside experts were consulted throughout the research design and reflective conversations used to discuss the meaning of the data. These conversations were often informal; the advice, however, was given by well-informed and expert peers and has proved invaluable to this research, leading to a growing understanding of the data. Examples of this include discussions at conferences when aspects of the data were presented, discussions during yearly panel meetings and regular, formal and informal contact with colleagues at the university.

Cresswell and Miller (2000) suggest that the qualitative researcher has a number of options available to ensure research is 'valid'. The options are: triangulation, disconfirming evidence, researcher reflexivity, member checking, prolonged engagement in the field, collaboration, the audit trail, thick and rich description, and peer debriefing. Of these, researcher reflexivity, collaboration, and thick, rich description are most notable in this research. Researcher reflexivity is the acknowledgement of a deep, reflective engagement in the research process by the researcher. By acknowledging reflexivity, the researcher allows the reader to be aware of any biases and prior experiences that may have impacted upon the data collection and analysis. Collaboration, as a validity check, refers to the involvement of the participants within the research process; through choosing action research as a research strategy, the involvement of the participants was already guaranteed. Thick, rich description refers to the detail included in the write-up that allows the reader to contextualise the research. Cresswell and Miller (2000) explain that this can be done by including detailed descriptions in the analysis. This is essential because, instead of



controlling all the variables, the case study researcher describes the variables and allows the reader some latitude in judging for themselves the validity of the case. The intention is that the reader will come to his or her own conclusions about a piece of research or case study and perhaps find similarities with other cases and apply these findings to their own situations. Thus, a teacher wanting to see how other teachers have coped in similar situations could find a case similar to their own circumstances and adapt and apply the findings. This concept was first described as “thick description” by Geertz (1975) and has become a key strategy in qualitative and case study research and write-up. Although ‘thick descriptions’ of this kind allow the reader some autonomy over their interpretations, it is important to provide enough guidance in the analysis and discussion to prevent the reader, and especially the policy maker, from misreading the data and reaching inappropriate conclusions for their own contexts.

Although traditional positivist terminology and approaches to validity and reliability may not be appropriate within constructivist research, ensuring good quality research remains a key priority. Lincoln & Guba (1985) propose that good qualitative research must be ‘trustworthy’ and to achieve this the researcher would have to “*persuade his or her audiences (including self) that the findings of an inquiry are worth paying attention to, worth taking account of*” (p. 290). In order to ensure trustworthiness, Lincoln & Guba (1985) provide five criteria, as alternatives to positivist validity and reliability checks, upon which to judge research; these are:

1. Credibility – How credible are the findings? Credibility can be improved by seeking to employ the following:
  - Prolonged engagement in the field
  - Persistent observation - aims to add depth to observations and draw the researcher’s attention to observations or information that they may perceive to be unimportant or irrelevant at first glance.
  - Triangulation
  - Peer debriefing - using peers to comment on the research and the conclusions drawn from it. The idea is that an informed or alternative view may confirm some findings and also open the way to new interpretations.
  - Negative case analysis - aims to revise conclusions until there are no exceptions to the rule. Although this is more akin with positivist notions, it is

useful to consider how many cases complied with a 'rule' or finding. Given the variety of teachers in this research, considering the number of negative examples may be useful.

- Referential adequacy - using set-aside data – either video tapes or written data - at a later date to confirm findings.
  - Member checks - asking the respondents to confirm the conclusions you have reached from your data. This can be ongoing throughout the research and/or at the end.
2. Transferability – “*whether the findings hold in some other context, or even in the same context at the same time*” (Lincoln & Guba, 1985, p. 316).
  3. Dependability – whether, upon examination of the process of inquiry, the methods can be identified, justified and explained.
  4. Confirmability – whether the data support the findings, interpretations and recommendations and whether the findings are grounded in the data.
  5. Reflexive Journals

These five criteria, they suggest, can replace validity and reliability in some qualitative research. Other authors (e.g. Sparkes, 1998), however, criticise the use of this terminology and argue that rather than being an alternative to positivist ideals they are more of a parallel, and thus still attempt to apply positivist criteria to non-positivist research.

Perhaps more useful and applicable are the terms 'authenticity' (Lincoln, 1993 ) and 'believability' (Blumfeld-Jones, 1995). Through a process of ensuring authenticity, the researcher attempts to portray the lives of the participants and their experiences in an accessible and detailed way, so that the reader is able to imagine and empathise with the lives and situations being described. Believability is the extent to which an account is believable and analogous to the reader's own situations and experiences.

A range of validity and reliability checks have thus been considered; whilst some more structured, positivist criteria have been rejected as unsuitable for this research, other criteria have been applied and thus the research can be judged, by others, to be useful or credible. On a personal level, it was important to me that this research would be accessible and useful to teachers. If it was not useful to teachers and policy



makers, it would simply be a means to a selfish end - a title and a certificate. If this was all it amounted to then I would have wasted the teachers' time and failed to make a difference. This is not to say that the findings can be generalised to all schools and all teachers but they do enable others to identify elements of their own contexts and to use my findings to improve their own situations; i.e. their teaching and their pupils' learning in PE and beyond.

Issues of assuring the quality of qualitative research continue to occupy the research community. Recently, the ESRC (2003) has commissioned a study titled "Quality in Qualitative Evaluation: A framework of assessing research evidence" (Spencer, Ritche, Lewis & Dillion, 2003). This seeks to aid the qualitative researcher in the credible design, execution and analysis of research. More importantly, it allows the reader to judge for themselves, the credibility of this research. The framework encourages the researcher to focus on aspects of their research design and analysis and provides a list of 'checks' to encourage the research to be:

- *contributory in advancing wider knowledge or understanding about policy, practice, theory or a particular substantive field;*
- *defensible in design by providing a research strategy that can address the evaluative questions posed;*
- *rigorous in conduct through the systematic and transparent collection, analysis and interpretation of qualitative data;*
- *credible in claim through offering well-founded and plausible arguments about the significance of the evidence generated. (p 7.)*

The framework asks questions of the research in a number of areas: findings, design, sampling, data collection, analysis, reporting, reflexivity, ethics and auditability. The framework was used as a check within this research; the full version, including examples of the checks made in this project, can be found in Appendix A.

#### **4.7 Methods of Data Collection**

I will now turn to consider the main methods of data collection that were used within the case study research. The case study is a framework within which three main methods were used: interviews, questionnaires and observations. These were the primary research tools and the data were supplemented by field notes and informal discussions with staff.

### 4.7.1 Interviews

I used interviews to find out about teachers' opinions and experiences. Interviewing was used as a tool to gather data concerning teachers' teaching, PE and CPD histories and their opinions concerning the PE-CPD offered as part of this research.

Gillham (2000) suggests that interviewing should be used to collect data when:

- *Small numbers of people are involved;*
- *they (interviewees) are accessible;*
- *they are 'key' and you can't afford to lose any;*
- *your questions (or the most significant ones) are mainly 'open' and require an extended response with prompts and probes from you to clarify answers;*
- *if the material is sensitive in character so that trust is involved: people will disclose things in a face-to-face interview that they will not disclose in an anonymous questionnaire (p.62).*

After considering the depth of detail that I would require, I decided to interview the teachers in order to explore their CPD and PE histories. A copy of the interview schedule can be found in Appendix B.

The purpose of interviewing is to collect data that cannot be observed; it allows the researcher to "*probe an interviewee's thoughts, values, perceptions, views, feelings and perspectives*" (Wellington, 2000, p71). There are many 'types' of interview identified in the literature, Hitchcock and Hughes (1989), for example list nine. A more popular classification is to identify just three types of interview; unstructured, semi-structured and structured (e.g. Hitchcock and Hughes, 1989). May (1999) adds a fourth – the group interview, whilst McBride (1989) describes an interview continuum, which depends on the degree of question structure. Wellington (2000) notes that:

*"Some authors have described interviews as 'a conversation with a purpose' (Webb and Webb, 1932). This approach involves a relatively informal, interactive style which may often involve a two-way exchange of views (e.g. Lather, 1986)...At the opposite extreme, some researchers feel that an interview should act as a kind of sponge, soaking up the interviewee's comments and responses...the interviewer simply collects and records the responses...without comment or feedback" (p. 72).*

The purpose of the interview dictates the style of interviewing used. For example when trying to establish relatively straightforward information about the teachers



(their experiences and initial teacher training), I adopted a fairly structured interviewing technique, but when I wanted to explore their opinions and experiences, I allowed my interviewing style to become less structured. My interviewing style fits most closely with a semi-structured interview because I already had some themes identified for discussion. Gillham (2000) suggests that the semi-structured interview *“is the most important form of interviewing in case study research. Well done, it can be the richest single source of data”* (p. 65).

It was necessary to identify some themes that I wished to explore in order to create an interview schedule. Wellington (2000) suggests the use of interview guides and schedules to identify and classify topics for discussion. Once the themes are identified and classified, it may be useful to turn *“all the ideas into meaningful questions for the target interviewees. It involves careful use of language, e.g. avoidance of jargon and careful phrasing. The questions need to make sense and be unambiguous”* (Wellington, 2000, p. 76). The specific questions used in the interview were based on my primary research questions.

Having identified the themes for ‘discussion’ and carefully planned the wording of the questions, I needed to consider how to conduct the interview. Wellington (2000) suggests that *“one of the first tasks of an interviewer is to establish rapport with the interviewee”* (p. 77). I attempted to establish a rapport with the teachers by getting to know them first and establishing some trust with them. It was for this reason that I did not rush into conducting the interviews and tried to establish my role as a researcher in school A by first observing PE lessons. I then started interviewing towards the end of the Autumn term. However, having conducted four interviews, I realised that it was very time consuming for the teachers who were pressed for time, so I selected the key questions from the interviews and administered open-ended questionnaires to the remaining teachers. This further illustrates the point made earlier that, as a researcher, I may have been a little too empathetic at times.

The interviews were conducted at the school and in the teachers’ own classrooms. The interviewees were assured that their identities would remain anonymous and that they did not have to answer all the questions. However, the issue of anonymity is contested; on the one hand Punch (1986) states that:

*“In general, there is a strong feeling among field workers that settings and respondents should not be identifiable in print and that they should not suffer harm or embarrassment as a consequence of the research” (p. 45).*

On the other hand, Nespore (2000) contends that anonymity may never be fully achieved because research is visible and anyone connected with the research (administration etc.) is likely to be able to identify the setting and the people within it. Furthermore, if one aim of qualitative research is to describe in detail settings and contexts, then keeping such settings anonymous could be construed as withholding important information. Despite these contentions, anonymity was offered to the teachers, and although it couldn't be completely assured, reasonable steps were taken to prevent their identities from being revealed.

It was hoped that anonymity would encourage the teachers to speak openly and I also encouraged them to express their own views and opinions rather than giving me a 'text book' answer. The interviews were recorded using a minidisc recorder and microphone. These recordings were then transcribed. Whilst this was quite time consuming, I felt it was important to have an accurate record of what was said and this would not have been possible through just writing notes. Once the interviews were transcribed, key themes were identified and analysed, as discussed in the data analysis section of this chapter.

Although I carefully considered the practicalities of interviews, I also wanted to critically consider the possibility that I may have been influencing the data and that there was a subjective aspect in my interpretations of them. Hitchcock and Hughes (1989) warn:

*“The more involved the interviewer becomes with the situation the greater will be the potential for researcher effect. The major problem here surrounds the extent to which the interviewer 'leads on' or influences the respondents' responses...There is much scope for this in the unstructured interview format. If for example the teacher and the interviewees are known to each other there may be a degree of reciprocity taking place, that is the respondent may feel that they have to give the researcher the kinds of answers and responses it is assumed the researcher wants” (p. 88-89)*

It seems that rapport is essential on the one hand but may lead to bias on the other. It was important that I found a balance between the two. These issues have previously been discussed but it is worth emphasising the use of triangulation (Lincoln & Guba,



1985; Hitchcock & Hughes, 1989). Thus, the use of observation alongside interviewing was an attempt to validate some of my findings. However, when the athletics CPD activities had finished, I did ask the teachers from school A to discuss the answers to the second set of questionnaires, which asked them to evaluate the model of CPD, before they completed them. This was to generate new ideas and also so that I could 'triangulate' the questionnaire findings with the questionnaire discussion.

#### 4.7.2 Questionnaires

Questionnaires were used within this research when it became apparent that it would not be possible to interview all the teachers. Questionnaires were also used after the two CPD research activities to assess whether the teachers felt the CPD had been 'effective' for them. Whilst the chosen format for both questionnaires was similar, it will be easier to discuss the two questionnaires separately. First of all, though, this method of data collection will be discussed at a more general level.

Many of the issues that were considered during the design of the interview questions were also addressed here. The teachers were assured that their identity would remain anonymous and it was hoped that this would encourage them to be open with their answers. The questions were worded so that they would not be 'leading' (Bailey, 1982); that is, possible answers to questions were not given within the question. Although it is impossible to know how somebody will react to any particular question, the questionnaires were designed, as far as possible, to ensure that they would not offend or pose a threat to the teachers' professionalism. Not only was the wording important, the style of questionnaire also had to be considered. The decision was taken to follow a similar questioning style to the interviews, so the teachers were encouraged to give detailed answers. This style of questioning is known as "open-ended" because it allows the teachers to give opinions and explain their answers. Bailey (1982) provides a list of 5 advantages of open-ended questionnaires; these are (i) that they are useful when all the answer categories are not known from the outset; (ii) they allow the respondents to explain their answers in full; (iii) they can be used when there are too many possible answers to list on a questionnaire; (iv) they can address complex issues; and (v) they allow the respondent some creativity and the

chance for self-expression and do not impose a particular structure. On a practical level, and in relation to this research, reasons one and three were certainly considered. The questionnaire, partly confined by the choice of methodology, needed to encourage answers that could not necessarily have been predicted in advance. Secondly, reasons two, four and five meant that the questionnaire could allow for rich and varied data and this too was important.

The questioning style did vary and on some occasions the teachers were required to write in a box, sometimes they could tick an answer and sometimes they could assess their opinions against a scale. Despite an open-ended questionnaire being designed, there were some questions within the questionnaire that were designed to elicit factual answers more akin to fixed-choice questioning as defined by Coolican (1997). Whilst much of this research sought to establish meaning, there were occasions when factual clarification was required and thus some questioning more akin to quantitative methods were used. Johnson & Onwuegbuzie (2004) describe this kind of approach as 'mixed-methods research'. The benefits of such an approach are described as:

*“Taking a non-purist or compatibilist or mixed position allows researchers to mix and match design components that offer the best chance of answering their specific research questions... qualitative researchers should be free to use quantitative methods... differences in epistemological beliefs... should not prevent a qualitative researcher from utilising data collection methods more typically associated with quantitative research” (p. 15).*

Whilst this research did employ some quantitative techniques and could be described as using a number of methods, it was essentially qualitative in nature and does not conform to true mixed-methods research, as defined by Johnson & Onwuegbuzie (2004). Thus, the most appropriate methods were used and an attitude scale (similar to a Likert Scale, developed by Rensis Likert in 1932) was developed to allow the teachers to judge the effectiveness of the CPD package. It was felt that this question required a structured answer and this meant it was possible to compare answers. The teachers did have the chance to qualify these answers later in the questionnaire. Whilst detailed answers were desired, it was also important to keep the questionnaires short and thus encourage the teachers to complete them. It was important that a balance between the length of time taken to fill in the questionnaire and encouraging rich, detailed data was achieved.



Two questionnaires were thus designed. The first was an adaptation of the interview questions into questionnaire form and the second was used to assess the impact of the CPD models. The first questionnaire sought to elicit information about the teachers' teaching, PE and CPD experiences and their opinions concerning these areas. Whilst the teachers did not provide as much data as they had in the interviews, using questionnaires did have its advantages because the teachers were able to check their CPD records in their own time and could think carefully about their answers. (A copy of this questionnaire can be found in Appendix C). The second questionnaire was distributed after the completion of the athletics CPD, towards the end of the summer term. In school A, the teachers were given time to discuss their answers without the researcher being present. This conversation was recorded and the data used to supplement individual responses from the questionnaire. This strategy was not possible in school B and I did not get the chance to clarify the questionnaires. I had arranged for the teachers in school B to complete the questionnaires during staff meeting time, but the head teacher forgot to hand them out on two occasions and the teachers were therefore left to complete them over the summer holiday. This was not ideal as some time had lapsed after the CPD and it also meant the teachers had to be motivated enough to complete them in their own time. The questions on this second questionnaire were divided into 3 sections:

- General professional development
- The Athletics professional development
- Collaborative Professional Learning (CPL)

The first section asked the teachers to identify what they saw as effective professional development; this section was included so that their answers to the second sections could be compared and contrasted with their concepts of effective CPD. The second section asked for teachers' opinions of the CPD package by considering particular outcomes and their views on certain aspects of the package. The third section aimed to establish whether teachers recognised the collaborative nature of the CPD package. A copy of this questionnaire can be found in Appendix D.

### 4.7.3 Observations

Observation as a research technique was used for two purposes: firstly as an opportunity to combine methods within the case study research and secondly to

generate new and different data. Specifically, observation was used to establish how PE was being taught in the two schools and whether the CPD activities made an impact on the teaching of PE.

Gillham (2000) notes that observation involves: watching what people do, listening to what they say and sometimes asking for clarification. An observer can be involved in the activity or detached from the activity; the former of these is known as participant observation and the latter as detached or structured observation (Gillham, 2000). I felt it was important to act as a participant in the lessons that I observed. This was, primarily, because I wanted the teachers to gain as much benefit as possible from the research and my presence in the school. I could, therefore, act as a helper in the lessons rather than sitting detached and on the periphery. I also wanted the teachers and children to act in as 'normal' a way as possible and I hoped that trust would be facilitated because I was involved in the lesson.

Gillham rehearses a key research concern about the effect that the researcher can have upon the people being observed; that is, they may respond differently, purely because the researcher is present (Gillham, 1989). Angrosino & Mays De Perez (2000), however, argue that an observer's presence, after a while, ceases to be novel enough to be disruptive. I acknowledge that my presence may have affected some of the things I observed, I would also argue that this effect was reduced as the children and teachers accepted me and became used to me being present in lessons in a supportive role. My presence certainly prompted some of the teachers to teach differently; some tried hard to display effective teaching skills and some freely admitted they were not very good at teaching PE. In addition, where I taught some or all of the PE lesson, it is evident that I had caused a change in 'normal' practice. However, individual children did not seem interested in my presence; sometimes I was introduced and sometimes children asked who I was but beyond that, they seemed largely unaffected. Clearly there are advantages to observation:

*"There are numerous reasons why an investigator might want to gather data through observation. As an outsider an observer will notice things that have become routine to the participants themselves, things which may lead to understanding the context. The participant observer gets to see things firsthand and to use his or her own knowledge and expertise in interpreting what is observed, rather than relying upon once-removed accounts from interviewers... Observation makes it possible to record what is happening.*



*Finally there are many topics people may not feel free to talk about or may not want to discuss” (Merriam, 1988, p88-89).*

It is important to remember that although observation has its associated advantages and disadvantages, it is being used as a research tool in combination with other methods and it is hoped that this will overcome some of the inherent problems.

Another issue to be considered is that of data collection. Involvement as a teacher in some lessons meant that making notes during the lesson was impossible. I was, therefore, keen to make notes as soon as possible after the lesson and these were written under established headings (see Appendix E). I did not feel the need to videotape anything that I observed because I wanted to capture a ‘normal’ lesson; the focus was on the broad context of the teachers and their CPD experiences and it was therefore not necessary to capture all the details of the lesson. In addition, parental permission was a topical concern at the time of the research. Merriam (1988) has put forward some suggestions and guidelines for recording observations, some of which were pertinent to my research:

- *It is imperative that full notes be written, typed, or dictated as soon after the observation as possible;*
- *expect and plan to spend as much time writing notes as one spent observing;*
- *once the observation is completed, leave the setting as soon as observing as much as can be remembered;*
- *record field notes as soon as possible after observing;*
- *Bogdan (1972) advises against talking to anyone about the observation before notes have been recorded and suggests that the observer is more concerned with remembering the substance of the conversation rather than a ‘flawless verbatim report’;*
- *field notes usually begin with the time, place, and purpose of the observation;*
- *a diagram of the setting’s physical aspects might be included;*
- *separate the observers’ comments from the narrative account of the observation when writing up. (from Merriam, 1988, pp. 96-98).*

Although some of these suggestions may appear a little obvious, they are useful guidelines to consider when conducting and analysing an observation. Despite there being some drawbacks to the employment of observation as a technique for data gathering, I would agree with Guba and Lincoln (1981):

*“In situations where motives, attitudes, beliefs, and values direct much, if not most of human activity, the most sophisticated instrumentation we possess is still the careful observer – the human being who can watch, see, listen...*

*question, probe, and finally analyse and organise his direct experience” (cited in Merriam, 1988, p. 103).*

I observed PE lessons in both schools throughout the winter and spring terms. I observed a range of PE curriculum areas with pupils from years 1 to 6. Seventeen lessons were observed altogether and the observation notes used to identify issues common to many of the lessons. These issues, including behaviour and resource management, for example, were then considered in the planning of the two models of CPD. The aim was to help teachers to overcome some problems associated with teaching PE within their own school contexts. Lessons taught as a result of the athletics CPD were also observed during the summer term in school A.

#### 4.7.4 Field Notes

In addition to the notes taken shortly after the observations, field notes were taken throughout the research to record my own thoughts, opinions and experiences. A research diary was kept to record every occasion when I went into the two case study schools. Whilst these sources of data rely on my own interpretations of the situations in the two schools, they are a useful secondary source of data and are invaluable in supporting and explaining the primary data (Ritchie & Lewis, 2003; Bogdan & Biklen, 1982):

*“Fieldnotes provide an opportunity to record what researchers see and hear outside the immediate context of the interview, their thoughts about the dynamic of the encounter, ideas for inclusion in later field work and issues that may be relevant at the analytical stage” (Ritchie & Lewis, 2003, p. 133).*

Field notes were thus written after the observations and CPD meetings. They provide an opportunity to be reflective and to consider avenues for future exploration and points for discussion. To a lesser degree, field notes were sometimes written after any contact made with the schools; this may have been a brief visit, after supply teaching or following a telephone call. Bogdan & Biklen (1982) whilst promoting the use of field notes, also warn that:

*“Some researchers go overboard on the reflective side to write their autobiographies. It is important to remember that the reflections are a means to a better study, not an end in themselves” (p. 87)*



## **4.8 Descriptions of the Two Models of CPD**

This section describes and explains the athletics CPD models that were delivered to each school. Firstly, an overview of the key features of the professional development, which was based around 8 athletics lessons is provided and then the events specific to each school are discussed.

### **4.8.1 Key features of the professional development**

The professional development offered to teachers from both schools was more than simply tutoring. It also consisted of all the resources that the teachers would need in order to put their learning into practice. The weekly sessions allowed the teachers in school A to reflect upon what they had taught, solve problems and learn how to teach different athletics skills. The teachers in school B were able to observe the skills teaching in practice to children within their own school and could take part in the activities if they wished. In addition to these different forms of instruction, both schools were provided with lesson plans, schemes of work, handouts to accompany each session and all the equipment needed to teach athletics. These resources formed an essential part of the professional development as they enabled the teachers to teach athletics according to the suggestions made in sessions and the lesson plans. An understanding of what these were is helpful as it further illustrates the nature of the CPD and so these will now be explained.

### **4.8.2 The lesson plans**

Having observed PE lessons for two terms in schools A and B, I had an understanding of the problems facing teachers in PE lessons. I was aware that if the professional development was to be useful, and if the teachers were to be able to put what they had learnt into practice, then the lesson plans would need to include some strategies to overcome these specific contextual problems. An explanation of these problems and solutions can be found in Appendix F. The key features of the lesson plans were as follows:

- Each lesson included a warm up, a specific skill to be taught, time for children to practise the skills and engage in other athletic activities;

- Main activity based on circuits and children to rotate round 5 stations (sprinting, throwing, jumping, hurdling, cross-country running);
- Teaching points highlighted on each lesson plan and relating to one of the stations (the teachers would be taught this skill in the professional development session in the week before the lesson);
- Teacher to assist at the station corresponding to the skill they had taught;
- Links to national curriculum;
- Progression highlighted from year 2 to year 6;
- Emphasis on the children establishing a routine (children to work in the same teams in each lesson and be responsible for setting up and clearing away the same equipment each week).

(A copy of the year 3 / 4 lesson plans and scheme of work can be found in Appendix G)

#### 4.8.3 The Equipment

Each school was provided with all the necessary athletics equipment to teach the lessons according to the lesson plans. To assist the teachers with their class management, the equipment was divided into coloured boxes and different teams of children were responsible for setting up their own box each week. The boxes also related to the teaching points and athletic stations on the circuit; there was thus a throwing box, a sprinting box, a jumping box, a cross-country box and a hurdles box. Each box contained a clipboard with recording sheets for each activity, a pen, a list of equipment for the children to collect in at the end of the session, measuring equipment (either stop watches or measuring tapes), 10 plastic disc cones and in addition:

Throwing box – 3 foam javelins, 2 foam discus, 1 foam shot

Hurdles Box – 12 plastic cones, 6 plastic canes

It was hoped that by providing all the necessary resources, teachers would have every opportunity to put what they had learnt in the professional development sessions into practice in their athletics lessons. Another reason for providing attractive equipment was to make PE lessons more enjoyable for the children and to facilitate teaching and learning.



#### 4.8.4 School A

The CPD 'package' offered to school A was based on the principles of social constructivist learning and aimed to employ collaborative professional learning as a tool for teacher learning in athletics. There were two introductory sessions in the spring term where I introduced the teachers to the concept of CPL and also to the structure of the CPD sessions and proposed lesson formats. I then held weekly CPD sessions in the school staff room which teachers attended on a voluntary basis. The format of the sessions involved the learning of a new athletics skill and discussing how this could be taught to children; reflection on the previous week's learning and finally its implementation in practice. The sessions were based on key features of athletics and the following 6 sessions were arranged: Running and pacing, hurdling, throwing skills, jumping skills, warm ups and athletic challenges. These are skills that the National Curriculum for KS1 and KS2 identify as areas of study. The structure of the sessions differed each week and whilst I aimed for them to be active, practical and collaborative, this was not always possible where they took place in the staff-room rather than on the field or in a gym. A handout was provided for the teachers each week and copies of these can be found in Appendix H.

#### 4.8.5 School B

The intervention in school B was harder to initiate as although the head teacher had agreed to the research process in full, he was reluctant to allow me to take up much of the teachers' time. There was an established athletics club on Wednesdays after school that some of the teachers attended anyway. We therefore decided it would be better for me to utilise this time and so I was rather restricted in what I could do. I provided the same lesson plans and handouts for this school and some additional athletics equipment. There were, however, some advantages to this structure and instead of being based in a staff room without any children, as in school A, we were based on the field with approximately 25 children present. These 25 children were divided into three groups and three different activities were available each week. These were based on throwing, running, jumping and individual challenges because this was the structure that existed in previous years (and were similar to the activities in school A). Three teachers were responsible for the groups each week and they rotated with their groups around each activity. I chose one activity each week and

allowed the teachers to observe me teaching this activity as they rotated. The remaining teachers, who were not on athletics club duty that week, observed me teaching the first group and were then free to go back to their classrooms. This intervention was therefore active, practical and situated in the context where the learning would be used. It was, however, difficult to facilitate CPL in these sessions.

## 4.9 Data Analysis

### 4.9.1 Introduction

This final section considers how the data were analysed throughout and after the research. Data are analysed so that conclusions can be reached and thus key findings can be presented to a wider audience:

*“Data analysis is the process of systematically searching and arranging the interview transcripts, fieldnotes and other materials that you accumulate to increase your own understanding of them and to enable you to present what you have discovered to others. Analysis involves working with the data, organising it, breaking it into manageable chunks, synthesising it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others” (Bogdan & Biklen, 1982, p.145).*

Ritchie and Lewis (2003) also point out that data analysis reduces and organises the data into a more manageable format. Thus, the purpose of data analysis is clear. The procedure, however, is not so straightforward as the researcher must choose an approach to data analysis that fits with their wider methodology. An adaptation of Grounded Theory analysis (Glaser & Strauss, 1967) with a specific emphasis on constructivist grounded theory (Charmaz, 2000) was chosen for data analysis within this research and this will be discussed later. Firstly, some practical considerations concerning the analysis of qualitative data will be addressed.

### 4.9.2 Data Analysis: Practical Considerations

Qualitative data analysis is more easily understood when it is viewed as a process whereby the data are analysed, to some degree, throughout the data collection stage. This means that as new data are collected, the researcher may identify and refine themes as they ‘emerge’ from the data. Silverman (2002), for example, indicates that data analysis can never start too soon and argues that separating the data gathering from the analysis is wasteful of time and may neglect meaning. Bogdan and Biklen



(1982), on the other hand, identify two types of data analysis, one during the collection and one after. Whilst much of the data in this research was analysed after the fieldwork, it was also constantly being analysed at a less formal level throughout the research. Themes were identified and subsequently rejected or confirmed as the research progressed, thus by the end of the research phase, an understanding of what the data meant had been developed.

Analysis was an ongoing process, which culminated in a systematic analysis of all the data. Although the data were analysed as they were gathered, allowing some grasp on the themes that were emerging, as well as the opportunity to return to the schools to confirm and expand some concepts, the final analysis is, arguably, more important:

*“Without analysis, we would have to rely entirely on impressions and intuitions about the data as a whole. While our impressions and intuitions certainly have their place in analysing data, we can also benefit from the more rigorous and logical procedures of analysis” (Dey, 1993, p.30).*

The methodology literature is full of practical advice concerning this procedure (Ritchie & Lewis, 2003; Bogdan & Biklen, 1982; Dey, 1993) and much seems to be in agreement that regardless of the actual strategy employed to analyse the data, the inductive analyst needs to break the data down into chunks, themes or concepts and then build these up again into overall theories or conclusions. An exception to this could be narrative analysis (Oliver, 1998), which utilises a more holistic approach. As a general rule, categories are created and the data assigned to them. The basic process, therefore, involves having a good overview of the data, identifying common or recurring themes, assigning a code to the themes and breaking the data down according to these codes. This needs to be done whilst still paying attention to the context and detail surrounding each chunk of data and considering how these themes may occur within and between cases. The actual procedure of breaking data down into manageable chunks and building up theories and conclusions can be undertaken in a number of ways: Coolican (1997) and Glaser and Strauss (1967) endorse the use of an appropriate coding system, Bogdan and Biklen (1982) suggest that the data could be cut up and placed in coded envelopes, Dey (1993) supports the use of computer analysis programs such as ‘Nud\*ist’, whilst Charmaz (2000) warns that such programs may hinder the interpretive process by focusing the researcher on parts of data at the expense of grasping the wider picture. The amount of data collected in this

research lent itself to a coding system that was accurate and clear and so codes were handwritten onto the data. An example of this can be seen at the end of this section.

Dey (1993) offers further practical advice and describes qualitative analysis as a circular process of describing, classifying and connecting. **Description** here is used in a similar vein to ‘thick description’ (Geertz, 1975), as discussed earlier in the chapter. The data need to be described so that the contexts in which they were created can be explained and the data situated within these contexts. Denzin (1978) provides further guidance for the use of description: “*Thick description includes information about the context of an act, the intentions and meanings that organise action, and its subsequent evolution*” (p. 33). Thus, this part of the analysis should include descriptions of three aspects of the research: (i) the contexts in which the data were produced, (ii) the intentions of the people being researched (e.g. when humour or sarcasm is used in an interview, the intended answer may be different to the actual answer) and (iii) the process – how the research setting has evolved over time. Qualitative research rarely involves a one-off questionnaire or field visit and so description here needs to include how the setting has changed over the course of the research.

The second stage of this circular process is **classification**. Data need to be taken apart and classified in order to give them meaning and to create an overall picture. Put simply, categories are assigned to data sharing similar characteristics:

*“Qualitative analysis involves more than fitting the bits together, however. Our data start as a seamless sequence, from which we ourselves must first of all cut out all the bits of the puzzle. We must cut them out in ways which correspond to the separate facets of the social reality we are investigating, but which allows us to put them together again to produce an overall picture... We can picture categorisation as a process of funnelling the data into relevant categories for analysis. The data loses its original shape, but we gain by organising it in ways which are more useful for our analysis” (Dey, 1993, pp. 40-42).*

The third stage of the data analysis according to Dey (1993) involves **making connections**. Description and classification are not ends in themselves but serve to provide something upon which to write an account. The categories have to be brought together to create an overall picture and they are thus compared and contrasted and relationships discovered; where relationships are not found, it is the researcher’s job to assign reasons and meanings for this.



The practical guidance given in the literature provides a useful starting point for any qualitative researcher. The advice given can be applied, to some extent, within a number of data analysis approaches. As Dey (1993) states “*Despite the differences in approach and language, the common emphasis is on how to categorise data and make connections between categories*” (P. 5-6). Whatever the approach taken, Tesch (cited in Dey, 1993) identifies three orientations to qualitative research, which may be used singularly or in combination with each other:

1. *Language oriented approaches – interested in the use of language and the meaning of words – in how people communicate and make sense of their interactions.*
2. *Descriptive / interpretive approaches, which are oriented to providing thorough descriptions and interpretations of social phenomena, including the individual meanings given by those who experience it.*
3. *Theory-building approaches, which are oriented to identifying connections between social phenomena (p. 2).*

The second of these orientations accurately describes the descriptive data that will be presented in this research to describe the individual case study schools and individual teachers, whilst the third of these orientations is more akin to the type of analysis undertaken to provide comparisons between cases, although there was some overlap between the two. Thus, a brief description of each teacher and case study school is provided prior to a discussion of themes that were generated from the data. Whilst a number of different approaches were considered as tools for generating these themes, including: Conversation analysis (Hutchby & Wooffitt, 1998; Have, 1999), Discourse Analysis (Wetherall, Taylor & Yates, 2001), Content Analysis (Krippendorff, 1980; Weber, 1990) and Grounded Theory (Glaser & Strauss, 1967), an adaptation of Glaser & Strauss’ (1967) Grounded Theory, influenced by Charmaz’ (2000) constructivist approach was eventually chosen as the means for analysis in this research.

#### 4.9.3 Data Analysis: An adaptation of Grounded Theory

Grounded theory was ‘devised’ in 1967 by Glaser & Strauss as a systematic means to collect and analyse qualitative data. Although the approach has changed since then, the general principles remain the same (See also: Strauss & Corbin, 1990; Strauss & Corbin 1997; Glaser, 1998). Grounded theory aims to ‘ground’ the theory in the data, that is the data generate the theory, rather than the literature or predefined hypotheses. Thus, in this approach, a hypothesis is not tested or proved. The process of doing

grounded theory as prescribed by Glaser and Strauss ensures a rigorous set of procedures is followed. The key features of grounded theory analysis are as follows:

- Theories are allowed to emerge from the data rather than the data confirming or extending existing theories.
- **Theoretical Sampling** - The field is revisited and further data sought to confirm or disconfirm the concepts and categories as they arise
- Data are arranged so that they are manageable – e.g. a margin at the side and room for memos
- **Codes and categories** are developed, perhaps through assigning an alphabetic code (Miles and Huberman, 1994)
- Coding is an **ongoing process** that starts at the beginning of the research rather than at the end of the data collection phase.
- Data collection and conceptualisation continue until the categories and relationships are '**saturated**'.
- New codes are compared with initial codes through a process of **constant comparison**. Theories emerge from the data and can be checked through this process of constant comparison.
- **Memo writing** – which bridges the gap between initial codes and the emerging theory (Glaser & Strauss, 1967)

This research does not meet all of these key features to the extent that Glaser and Strauss originally intended. Grounded theory was used in this research as an analytical tool rather than as an approach, as was originally intended. A number of differences, are therefore inevitable: for example, some of the existing literature was used to inform the research, concepts and categories were not saturated to the extent that Glaser and Strauss intended and constant comparison, whilst being employed through the use of informal field notes was not a key priority. However, theoretical sampling was employed to a certain extent, coding was an ongoing process and the data were arranged so that they could be coded and categorised. Thus, many of the recommended procedures have been applied to the analysis of this data. It is for this reason that the analysis has been described as an adaptation of grounded theory, something that Charmaz (2000) argues is acceptable: "*Grounded theory offers a set of flexible strategies, not rigid prescriptions*" (p. 513). Considering these key features



has helped to focus and structure the analysis and it is intended that this will make the conclusions more credible.

#### 4.9.4 Data Analysis: A Constructivist approach to Grounded Theory

The following section links the constructivist approach taken in this research with the chosen approach to analysis. Charmaz' (2000) chapter in the Handbook of Qualitative Research (2000) will be used as the point of reference throughout this section. Charmaz attempts to compare objectivist and constructivist approaches to grounded theory and argues that traditional approaches are objectivist because they emphasise a uni-dimensional reality. A constructivist approach to grounded theory attempts to overcome this by acknowledging and seeking the existence of multi-dimensional realities and thus a shift away from traditional grounded theory is encouraged:

*“By adopting a constructivist grounded theory approach, the researcher can move grounded theory methods further into the realm of interpretive social science... Grounded theory can provide a path for researchers who want to continue to develop qualitative traditions without adopting the positivistic trappings of objectivism and universality... A constructivist grounded theory distinguishes between the real and the true. The constructivist approach does not seek truth – single, universal, and lasting. Still it remains realist because it addresses human realities and assumes the existence of real worlds... 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” (Charmaz, 2000, pp.521-523).*

Charmaz thus encourages a move away from the rigid and structured versions of grounded theory that focus on discovering a single reality or truth. She proposes a number of considerations or procedures to help achieve this:

- Different meanings should be sought from the respondents (i.e. teachers) and from the researcher because these meanings, although different, can exist in the minds of all involved at the same time.
- Views and values should be sought in addition to ‘acts and facts’ because this will help to clarify the respondents’ views on reality. Thus opinions, experiences, private thoughts, feelings and openness need to be sought throughout the research
- Scientific jargon, which may result from extreme coding and overly systematic analysis should be avoided. Instead ‘active coding’ should be used, which encourages more realistic categories more akin to real life.

- Questions asked of the data should seek subjective answers as well as factual ones.
- Analysis should be performed with the end reader in mind and written up in an appropriate style and level. (Charmaz, 2000, pp. 525-526).

An understanding of Charmaz' differing emphasis upon grounded theory is useful here as it focuses the analyst on the respondents' differing views of their experiences and situations. It also allows for each respondent to be viewed as individuals with their own beliefs and opinions whilst recognising that there can be themes that may be common to a number of situations. This approach, thus concurs with the overall approach taken in this research and it allows for the data to be analysed at an individual and a collective level.

#### 4.9.5 Data Analysis: How the data were analysed

In accordance with Glaser and Strauss' (1967) recommendations, theories or hypothesis were not tested; instead, concepts and theories were generated as data were collected. The field notes and peer discussions that accompanied the observations, interviews and questionnaires allowed the data to be reflected upon as the research process evolved. Some reflections were confirmed and some were disconfirmed following repeat visits to the case study schools. For example, after reviewing the literature and interviewing the teachers, it became clear that CPD structured around instructional principles would be less effective than CPD which created opportunities for teachers to play an active role in their learning. To a certain extent, this theory was disconfirmed in school A where the teachers rated both types of instruction as helpful to their learning. The lesson observations, in particular, helped to inform the planning of the CPD package as they enabled common problems with primary PE teaching to be identified and some strategies to help overcome these problems could then be planned (this can be seen in Appendix F). The four interviews also helped me to clarify the key questions and the questionnaires were refined accordingly. Whilst I did have some key research questions before entering the field, and I had my own opinions based on my experiences as a teacher and the literature review, I did not have any preconceived theories that I wished to test or prove. Although initial concepts were not formally identified, my reflections did produce some preliminary themes that



I wished to explore further and on subsequent visits. Having collected the data, I cannot claim to have saturated the categories as suggested by Glaser and Strauss; the school year, governed by terms and holidays and my own time scale did not allow for unlimited visits to the two schools.

Having gathered as much data as was possible, I compiled it into two Word documents – one for school A and one for school B. Each document contained the CPD history interviews or questionnaires, the lesson observations, the CPD package notes, the CPD package questionnaires and my field notes. A margin was inserted to the left of the data to allow notes to be made and the data to be classified. Having compiled the data in this way it was then possible to analyse it.

It was important to get to grips with the data for this final analysis stage and although I was familiar with it, having transcribed it and reflected upon it, my first task was to read it through and make notes to myself in the margin – these notes are akin to Glaser and Strauss' 'concepts'. Having done this, it was then possible to group these concepts together to form categories of concepts:

*“categorising brings together a number of observations which we consider similar in some respects, by implied contrasts with other observations. But the boundaries are not tightly defined...this means that in assigning something to one category, we do not automatically exclude it from others” (Dey, 1993, p. 20).*

The data were collected in two phases, but three categories of analysis, related to the initial research questions, were relevant: The Lesson Observations, The Teachers' PE and PE-CPD stories and The Effectiveness of Two Models of CPD. Within each of these categories, themes and sub-themes were generated, as detailed in the following table:



**Dey's (1993) first level of analysis – Description (as applied in this research)**

**The Schools**

- School A
- School B

**The Teachers**

- Teacher Profiles School A
- Teacher Profiles School B

**The Lesson Observations**

- Lessons from school A (Appendix J)
- Lessons from school B (Appendix K)

**The Athletics Professional Development**

- The Athletics CPD at School A and B (documented as a diary of events in Appendix P and Q)
- The Teachers' Attendance at, contribution to and assessment of the two models of CPD (Appendix L & M)

**Dey's (1993) Second Level of Analysis – Classification (as applied in this research)**

**The Lesson Observations**

**Cancelled / changed lessons**

- Teachers away
- Hall in use
- Weather
- Timetable mix-ups
- Teaching another subject instead
- Just didn't feel like teaching PE
- Teacher ill / injured
- Outside coaches taking the lesson

**Examples of High Quality Teaching**



## The Teachers' CPD and PE-CPD Stories

### Pre-service or initial teacher training

#### Positives

- Enjoyable

#### Negatives

- Mainly doing sports
- Not enough
- Can't remember it

## In-service Training / CPD

### Topics covered by INSET

- Assessment
- Dance
- Games
- Swimming
- Athletics

## Other Sources of Ideas for Teaching PE

- Experience of playing/coaching sport themselves
- Observing colleagues
- Newspapers / books / magazines
- Informal discussions with colleagues
- Resource packs / existing lesson plans or schemes of work
- Observing outside experts / coaches
- Observing own children being taught by coaches
- Experience gained whilst teaching PE
- Advice from PE co-ordinator
- Advice from friends / relatives who are teachers

## The Effectiveness of Two Models of CPD

### The Teachers' Assessments of the two models

- Effective features
- Ineffective Features
- Impact of CPD on teachers and pupils



<b>Dey's (1993) Third Level of Analysis - Making Connections (as applied in this research)</b>
<p><b>The Teachers' CPD and PE-CPD experiences</b></p> <ul style="list-style-type: none"> <li>• Effective PE-CPD provision for primary teachers               <ul style="list-style-type: none"> <li>• Practical and active</li> <li>• Resources provided</li> <li>• Course leaders</li> <li>• Ongoing or follow-up</li> <li>• Individual</li> <li>• Active and Practical</li> <li>• Situated</li> <li>• Collaborative</li> </ul> </li> </ul>
<p><b>Effective CPD in these two schools</b></p> <ul style="list-style-type: none"> <li>• School based</li> <li>• Situated</li> <li>• Ongoing</li> <li>• Practical and Active</li> <li>• Collaborative</li> </ul>
<p><b>Communities of Practice in primary PE</b></p> <p>Collaborations that did occur in the two schools</p> <p>Differences between claims processing and PE</p> <p>Assumptions</p> <ul style="list-style-type: none"> <li>• PE expertise exists</li> <li>• Communities of Practice exist in PE</li> <li>• Communities of Practice are naturally occurring</li> </ul> <p>Barriers to CPL</p> <ul style="list-style-type: none"> <li>• Personal</li> <li>• Structural</li> <li>• Practical</li> </ul>

These tables detail the themes and sub themes that were generated from the data but it is also helpful to see how particular themes were generated from the data and so an example is presented here:



## How a theme was generated (The Teachers' CPD and PE-CPD experiences)

### The First Step

The questionnaires, interview transcriptions, observation notes and field notes were organised into individual files for School A and School B.

### The Second Step

Interview and questionnaire answers were entered into an excel spreadsheet so that all the data that related to effective CPD were grouped together. Thus, the answers to the following questions were inserted into Excel:

#### Interviews

- What was good about the courses you have been on?
- What are your criticisms of the PE-CPD you have received?
- Are there any courses you have been on that you thought were pretty poor?
- How could professional development providers help you to put what you learn into practice?
- How would you define a really good course?
- Where do you get your ideas to teach PE?

#### Questionnaires

- Have you undertaken any further training in PE since gaining qualified teacher status? Please list any training that you can recall, and also comment on its quality and relevance from your point of view.
- How do you, personally, judge the effectiveness (or otherwise) of professional development activities?

#### Field notes

In addition to the answers to the above questions, some examples of effective or ineffective CPD were noted during visits to the two schools and when chatting with teachers. Thus, the field notes were analysed by firstly undertaking an initial 'read through' so that an overall picture was clear. On the second read through, 'effective CPD' was written next to any comments that referred to effective CPD in these schools. These were then extracted from the field-notes and added to the excel

spreadsheet. For example, after an initial meeting with Jenny from school B, I noted: *“Jenny seemed keen to have CPD take place in school”*. When we discussed the format of the athletics CPD, I commented: *“Jenny felt it would be beneficial to have a practical session and that we might as well take advantage of the children being there”*. During a discussion with Harry from school A, after observing one of his lessons, I noted: *“He suggested that he needed to see PE being taught either by demonstrators or videos”*. After observing a dance session taught by external coaches in school A, I reflected: *“I think for this session to have been really effective for teachers’ learning, they would need copies of the music and some lesson plans or diagrams of possible dance moves.”*

### **The Third Step**

Once all the examples of effective CPD were grouped together, it was possible to analyse it further and sub-themes were generated. A starting point for this was to consider the principles of effective professional development as described in chapter 2. The data were analysed with these in mind and assigned to the following categories or ‘sub-themes’:

- Practical and active
- Resources provided
- Course leaders
- Ongoing or follow-up
- Individual
- Situated
- Collaborative

### **Some Examples**

#### Practical and active

*“if they (INSET courses) are practical they are a bit more fun and often things strike home better if you are actually doing them”* (Linda, school A, interview, 14.11.02).

*“If it is possible to get a little bit more PE training hands on, pretty similar to the session we had a few weeks ago that would be really, really great”* (Harry, school A, interview, 15.11.02).

*“Unless you actually see or do the activities, it is not as useful or meaningful”* (Jenny,



school B, questionnaire, 2003).

*“I feel the most useful inset involves doing it – I can never remember what I’ve read and by seeing the focus ‘in action’, so to speak, it seems to be of greater value”* (Sally, School B, questionnaire, 2003).

#### Resources Provided

*“sometimes these places you go to have better resources. Often you are having to scribble down notes”* (Linda, school A, interview, 2002).

#### Course leaders

*“I think the people who do the best courses are people who perhaps to some extent still teach on a regular basis, possibly part time or something like that so they actually realise the limitations, the problems of putting into effect things they are talking about”* (Simon, school A, interview, 2003).

*“[Course leaders] should be enthusing and inspiring”* (Julia, school A, questionnaire, 2003).

#### Ongoing or follow-up

*“It would benefit all staff to have a rolling programme of professional development – you could have a 4 year rolling programme for each area of PE”* (Jenny, school B, questionnaire, 2003).

*“Regular workshops to share ideas would be great – once a month to focus on a particular activity”* (Kim, school B, questionnaire, 2003).

*“Ideas from training need to be used as soon as possible in order to consolidate and use them most effectively”* (Kim, school B, questionnaire, 2003).

#### Individual

*“I would like courses to be geared to the level you are teaching at e.g. NQT”* (Harry, school A, interview, 2002).

Situated

*“Researcher: So actually having it (CPD) done in your own school with your own resources made more sense and you could apply what you had learnt?”*

*Linda: Oh yes. Definitely”* (Interview, school A, 14.11.02).

*“It’s always useful to see your own children (class) being taught by someone else and being an observer of your own class being taught by someone else”* (Harry, school A, interview, 15.11.02).

*Jenny seemed keen to have CPD take place in school* (Field notes, school B, 30.8.02).

Collaborative

*“It was useful to have feedback from a colleague, usually a more senior colleague”* (Simon, school A, Interview, 18.02.03).

*“I would like to watch Sandra teaching PE as when I talk to her about lessons, she always has really good ideas for teaching”* (Claire, School A, interview, 7.02.03).

**The Fourth Step**

Having classified the data into the above sub-themes, links were made to the effective CPD literature. For example, the sub theme, ‘course leaders’ was linked to the literature in the following way:

“Teachers from this research and elsewhere also comment that effective course leaders for the teachers can impact on their learning. Effective course leaders in this research were enthusiastic, knowledgeable and had recent experience in the classroom:

*“I think people who do the best courses are people who perhaps to some extent still teach on a regular basis, possibly part time or something like that so they actually realise the limitations, the problems of putting into effect things they are talking about. I have got the distinct impression that the longer you are out of the classroom, the less plausible your estimations are of what is*



*achievable within a day to day teaching environment...I guess somebody who has been out of the classroom for a term or ten years is going to be increasingly out of touch". (Simon, school A, interview, 2003)*

*"(Course leaders should be) enthusing and inspiring – non-threatening" (Julia, School A, athletics questionnaire, 2003)*

*"The people who run them. Their enthusiasm and knowledge [make CPD effective]" (Linda, interview, School A, 2002).*

These findings are not new. Lee (2000), for example, also found that courses were rated as more effective when course leaders had recent and relevant experience. Furthermore, Armour & Yelling (2004) found teachers preferred courses that were delivered by 'good' presenters" (Extract taken from chapter 5).

#### 4.9.6 Data Analysis: A conclusion

Whilst many of the principles found in the literature on qualitative data analysis are similar, the emphasis does differ. The approach chosen for this research reflects the constructivist methodology used throughout this research. Constructivist data analysis is beneficial because it focuses the analyst on describing the realities of each individual participant in the research and thus encourages a detailed, contextualised description of the teachers and schools involved. As such, the next chapter will provide a description of each school and the teachers within them. The schools' OFSTED reports will be used as data for the school descriptions, and teachers' answers to the 'information' questions on the CPD questionnaires will be used to provide brief descriptions of the teachers. The following chapters will analyse the lesson observation data, the interview and questionnaire data and the athletics CPD data to create a better understanding of primary PE, primary teachers' experiences of PE and PE-CPD, and CPL's potential as a strategy for professional development.

#### **4.10 Ethical Considerations**

This research was designed in accordance with the University's ethical guidelines (<http://www.lboro.ac.uk/admin/committees/ethical/cophp.htm>). As the research did not directly involve the pupils, special clearance was not needed but, as a teacher, I

was already in possession of a Criminal Records Bureau (CRB) certificate and was therefore 'cleared' to work in schools and with young people.

Informed consent was sought from the teachers. The aims and objectives of the research were explained prior to the interviews and a section was included on the questionnaires, which briefly explained the research (See Appendix C). In addition to this, an introductory session was held at both schools to explain to the teachers how they may be involved. Verbal consent was asked for prior to the interviews and a tick box was provided on the questionnaires. The teachers were told that their identities would remain anonymous and that they did not have to answer all the questions. At the start of the interviews, the teachers were told that they could withdraw from the interview at any stage and that they did not have to give a reason for their withdrawal. The teachers were also asked whether they minded their answers being audio taped and quoted in the research.

A copy of the teachers' CPD, PE and PE-CPD stories was sent to each teacher and they were asked to comment upon what had been written and make any necessary changes. Of the scripts that were returned, the teachers all accepted the stories as being accurate.



## **Chapter 5: The Schools, the Teachers and their PE Teaching**

### **5.1 Introduction**

The purpose of this chapter is to provide a detailed and analytical overview of the two case study schools. Contextual information about the schools, the teachers and the PE lessons are presented and pupils' learning within observed PE lessons is analysed. This contextual knowledge was used to design a model of PE-CPD that aimed to encourage effective teacher and pupil learning and the model is discussed in the next chapter. Dey (1993) identifies three stages to qualitative analysis: description, classification and making connections. These three levels of analysis will be used in this chapter to organise some of the findings. Narrative accounts describe the two schools and the teachers in the first part of this chapter. The second part of the chapter analyses the lesson observations and highlights what and how pupils were learning within the lessons. The lesson observation data are then analysed using Dey's second level of analysis, and the emerging themes are presented. The third level of analysis draws upon the wider research literature and connects it to findings from this research to analyse these primary teachers' PE-CPD experiences and needs.

### **5.2 The Case Study Schools and Their Teachers**

The first section of this chapter will describe the schools and then introduce the teachers. Data from OFSTED reports, the interviews, questionnaires and field notes have been used to create a case report for each school.

#### **5.2.1 School A**

The OFSTED report available for this school is particularly useful because the school was inspected towards the end of the year of fieldwork. The information contained in the report, therefore, is relevant and up to date (at the time of the research).

School A is located in a large village on the outskirts of a Midlands Town. It is a primary school and so the children are aged from 4-11 and, at the time of the inspection, there were 362 children on roll. Measures of social status, which help identify a school's 'type' are the number of children receiving free school meals, the number of children on the special educational needs register, the number of children

of white ethnicity and pupils' attainment upon starting school. Although these measures may not be perfect, for example, the number of children claiming free school meals may be lower than the number of children eligible for them, they do provide a useful point of comparison between schools. School A has less than 1% of pupils receiving free school meals and this is well below the national average. Almost all pupils are of white ethnicity and only 7% of pupils are on the special needs register; again this is well below the national average. Pupils' attainment levels at the start of their school careers are above average in all areas of development other than writing. The high attainment levels are maintained throughout the school and children achieve above the national average in Maths, English and Science in the Key Stage 1 (KS1) and Key Stage 2 (KS2) Standard Assessment Tests (SATs).

During the research, the thirteen classes were made up of two reception classes, two Yr. 1 classes with five higher achieving reception children in each Yr. 1 class, two Yr. 2 classes, one Yr. 3 class, one mixed Yr. 3 / 4 class, one Yr. 4 class, two Yr. 5 classes and two Yr. 6 classes. OFSTED reports that the school is predominantly open plan and identifies this as a problem for the teachers when they are planning their lessons or attempting to conduct active or vocal lessons. There are, however, three mobile classrooms and these provide enclosed classroom spaces for children in Yrs. 3 and 4. The two reception classes and one Yr 1 class are housed in an extension of the school and this allows them freedom to engage in play and noisier activities. In addition to the classrooms, there is a studio that is used for music and video sessions and it also houses the non-fiction library. Adjacent to this room is an area where the fiction books are kept; there is also a hall (used for assemblies, dinner, drama and PE) and a computer suite was planned for the following year.

The facilities (accommodation and resources) for PE are described by OFSTED as satisfactory. The school has a hard playground, which includes three netball / basketball courts and this is where much of the outdoor PE is taught. In the summer and during dry periods, a field is available. This is slightly larger than a football pitch and houses some outdoor and adventurous equipment, although this is rarely used. Teachers are also timetabled to teach one 30 minute session in the hall each week, usually for dance and gymnastics.



According to OFSTED, PE in the school is supported by an experienced PE teacher who co-ordinates the subject well. OFSTED describes PE teaching in the school as satisfactory and reports that pupils at the end of KS1 exceed expected levels but only meet expected levels at the end of KS2. Gymnastics, dance and outdoor and adventurous activities are not mentioned in this report; presumably they were not taught or were not observed during the period of inspection. Swimming could not be taught until appropriate facilities were found.

### 5.2.2 Teacher Profiles: School A

#### Simon (Year 6 teacher)

Simon is a primary school teacher with 11 years of teaching experience who has taught all KS2 year groups (ages 7-11). He has been the subject co-ordinator for geography, history and ICT. Despite his experience, he identified some gaps in his PE teaching knowledge and felt that he was not always confident teaching sports with which he was not familiar.

#### Harry (Year 4 teacher)

Harry is an inexperienced teacher (NQT) with two terms of teaching experience prior to the start of the research and the interview. He was thus in his second year of teaching but he was not responsible for any curriculum area at the time of the research.

#### Linda (Year 3 teacher)

Linda was the PE co-ordinator at school A during the year of research. She is an experienced teacher who trained as a secondary PE teacher and has had 36 years of teaching experience, 28 of which were within primary education. She has taught all year groups from reception through to year 11. Despite being PE trained, she has been subject co-ordinator for maths, history, PE, music and geography at previous schools. Linda explained that she had been PE co-ordinator for a number of years but when she moved schools, she was asked to lead music instead as nobody else wanted to do it. She took over as PE co-ordinator in school A when she first started teaching at the school because this was the leadership area vacated by the previous teacher. Linda described herself as 'sporty' at school and listed some impressive sporting

achievements at school and county level in a number of areas (gymnastics, hurdles, hockey, 800m).

#### Claire (Year 1 teacher)

At the time of the interview, Claire had four years of primary teaching experience and had also taught for a term as a supply teacher. She had taught reception and year one classes at school A but had also taught some KS2 classes during her training and whilst supply teaching. In her first year of teaching, she was joint PE co-ordinator but was appointed to this role so that she could assist another inexperienced teacher with the PE leadership within the school. Claire is not a PE specialist, having trained as an English specialist at teacher training college. She wouldn't describe herself as sporty and did not participate personally in any sports or physical activities during the research. Claire pointed out that teaching some unfamiliar sports, like football, was difficult.

#### Laura (Year 2 teacher)

Laura has 18 years of teaching experience and has taught all KS1 and KS2 year groups. Laura was teaching Yr. 2 during the research and she took part in the athletics CPD during the summer term. Although Laura regularly participates in tennis and aerobics, she has not led PE in any of the schools where she has taught. Her specialist subject is art and she has been subject co-ordinator for literacy and art/design. Laura has helped to run some extra-curricula tennis sessions within the school, is enthusiastic about PE and is keen to promote it within the school.

#### Pat (Year 5 teacher)

Pat did not complete the PE-CPD history questionnaire. The following comes from my own knowledge of her teaching experiences gained whilst teaching in the school. Pat is an experienced teacher who trained in Canada. She has been teaching at the school for a number of years and has taught all KS2 year groups. At the time of the research, she was PSHE and maths co-ordinator and she was SEN co-ordinator when I was teaching at the school.



**Michelle (Year 5 teacher)**

Michelle did not complete or return the CPD questionnaire. The following details come from what I learnt about Michelle whilst teaching in the school. Michelle started her teaching career as a peripatetic music teacher and then made the decision to become a primary school teacher. She completed her PGCE in 1998 and had been teaching at the school, co-ordinating music, since September 1998. She had taught years 3, 4 and 5.

**Louise (Year 2 teacher)**

Louise did not complete the CPD questionnaire. My own knowledge of Louise's teaching experience comes from my time as a teacher in the school. Louise's original role was as PE co-ordinator but she had changed to co-ordinate science after about 4 years of teaching. Louise was thus very interested in and knowledgeable about PE and had achieved personal success playing tennis prior to becoming a teacher.

**Julia (Year 6 teacher)**

Julia did not complete the CPD questionnaire. She was in her second year of teaching at school A during the research and had many years of teaching experience before that, including a short spell as acting Head in her previous school. She was teaching year 6 during the research and was special needs co-ordinator, but has taught all KS2 year groups during her career.

**5.2.3 School B**

The OFSTED inspection for school B was conducted in 2001. Despite being two years old at the time of the research, it is still useful and provides relevant details and information concerning the school. School B is located in a Midlands town. It is an average sized junior school, with 247 children aged 7-11. 14% of children qualify for free school meals and this is in line with the national average. The number of ethnic minority pupils is above the national average and the number of pupils on the special needs register and with statements is well above the national average. Thus, based on these criteria, school B provides a contrast to School A. A comparison of available data concerning the two schools and the national averages can be found in Appendix I. The school had 8 classes at the time of the research and these were split evenly

between the year groups so that there were two classes within each year. SATs results for the end of the year (2003) show that the school performs broadly in line with the national average; with English being slightly below the national average and science results being slightly above.

An experienced teacher who is a specialist PE teacher leads PE within the school. There is a large, hard playground, a large field and a hall. PE is timetabled so that the teacher can take the class indoors if it rains and there are 4 sessions of PE timetabled each week, although these are not all utilised for PE. Most teachers taught a minimum of two half-hour sessions of PE each week. The equipment was stored around the outside of the hall and was clearly labelled and easily accessible.

The school's OFSTED report from 2001 describes PE teaching and pupil progress within PE as satisfactory; it does however point to the fact that only 3 lessons were observed and these were in years 5 and 6. The report praised the warm-up aspect of the lesson, children's movement and the swimming provision for all year groups. Another strong point identified in the report was the skills-based teaching that was observed. The report notes that all teachers in 2001 had received TOP Sport training and that many of the equipment bags were in use.

#### 5.2.4 Teacher Profiles: School B

##### Jenny (Year 3 teacher)

Jenny was the PE co-ordinator at the school during the year of research. She is an experienced teacher, having spent 23 years in the primary classroom and has taught all KS2 year groups.

##### Sarah (Year 5 teacher)

Sarah is an experienced teacher who has taught all junior age groups. She has 31 years of teaching experience and has led a number of curriculum areas, but not PE.

##### Kelly (Year 6 teacher)

Kelly has been teaching for four years and has taught years 4, 5 and 6. Her specialist subject is history and she is currently leading literacy and assessment in the school.



**Sally (Year 5 teacher)**

Sally has been teaching for 21 years, three of which were as a supply teacher. She has taught all KS1, KS2 and KS3 year groups and identifies rural science as her specialist subject.

**Kim (Year 4 teacher)**

Kim has 14 years of teaching experience and has taught all KS2 year groups as a class teacher and all primary year groups as a supply teacher. Her specialist subject is PE and she was the PE co-ordinator in her previous school. Kim stated that whilst being committed to teaching PE, she often found it hard to fit it in to the school day. For this reason, she sometimes allowed the children short breaks to stretch or run around.

**Other teachers.**

Three other teachers were observed teaching PE but they did not complete any of the questionnaires or attend the athletics CPD sessions. The observations of their lessons will be included in the analysis of PE teaching.

**5.3 The Lesson Observations**

Having presented descriptions of the schools and accounts of the teachers' teaching experiences, the contexts within which the lessons took place can be better understood. The lesson observations aimed to highlight how pupils' learning in PE was being planned for and whether planning translated into practice in PE lessons. The Department for Culture, Media and Sport's (DCMS) publication, 'High Quality PE and Sport for Young People: A Guide to Recognising and Achieving High Quality PE and Sport in Schools and Clubs' was used to analyse pupils' learning in the lessons. This was chosen as a framework for the analysis because it was designed to assist teachers in the delivery of high quality PE. It provides a list of recommendations aimed at making "*a positive impact on pupils' learning and achievement*" (DCMS, 2003, p.17) and these highlight how teachers can help their pupils to learn effectively within PE. The assumption is that if teachers plan their lessons according to these recommendations, then effective pupil learning will be facilitated. The recommendations are:

### DCMS Recommendations (2003)

“To make a positive impact on pupil’s learning and achievement, high quality teachers and coaches need to:

- Have a clear plan that sets out steps towards meeting the school’s vision and expectations for PE and school sport;
- Share with pupils what they expect them to achieve in a way that they can understand;
- Take into account what pupils have already learnt within and beyond school;
- Identify the next steps in progression and communicate these to pupils and their parents/carers;
- Give each pupil relevant learning activities and authentic contexts that interest, excite and motivate them;
- Provide opportunities to analyse, assess and evaluate their own and others’ work;
- Give pupils time to think, reflect and make decisions for themselves;
- Allow pupils time to wrestle with problems, while giving well-timed advice and support to advance learning and avoid frustration;
- Ensure that they use time, staff, equipment and resources in ways that keep pupils interested and learning (p.17).

These guidelines were used to assist in determining whether the teachers in the case study schools were planning for effective learning within the lessons. Seventeen lessons were observed in total, eight were from school A and nine were from school B. In order to understand more about how and what pupils were learning in each of these schools and how learning was planned for, the lessons are described individually culminating in a brief evaluative comment regarding planned teaching and observed pupil learning (see Appendix J and K). The lessons are analysed in this chapter using the DCMS’s (2003) recommendations as a framework for analysis.

#### 5.4 An Analysis of the Lesson Observations

The lessons have been described and instances of planned/observed pupil learning identified within them. Data will now be drawn together from the lesson observations and field notes to present a deeper analysis of teaching and learning. A preliminary



analysis of the data revealed that although 17 lessons had been observed, other lessons that were timetabled to take place were not taught and some that were taught deviated from the plan or had no plan at all. Some of the reasons for this include (the number of occurrences are written in brackets):

- The teacher was away (1)
- The hall was being used for something else (1)
- The weather conditions were inappropriate (3)
- There was some confusion about PE timetables (1)
- Another activity took priority (1)
- The teacher did not want to teach PE that day (1)
- The class teacher was ill/injured (2)
- Outside coaches were teaching the lesson (2)

The following extract from a recording of one of the CPD meetings in school A (11.3.03) illustrates some of these problems:

- Researcher* How many lessons has everyone managed to teach so far?
- Linda* ...We have only done two because two have been rained off
- Linda* Did you do it (teach PE) on the Friday, Harry, before half term?
- Harry* No
- Linda* You didn't? Did somebody do it (teach PE) with your class then
- Harry* No, I don't think so
- Laura* I Have done one (PE lesson) with your class
- Harry* Oh, you have done one
- Laura* But the next time, I think it was raining
- Linda* There was the one day when came back from Albrighton (residential field trip). It was fine then, did you not teach PE then?
- Harry* No, I think I decided that time to get the class to get their bags and tidy their desks and get everything ready to go because it was half term
- Linda* Oh really? That seems a shame!

It is important to note this because all the lessons in a PE scheme of work would need to be taught, and taught to plan, if lessons were going to be progressive and build successfully upon previous learning. The observations presented here are of single lessons but it would have been interesting to consider all the lessons in a whole unit of work when analysing the quality of PE provision. Bearing this in mind, the DCMS recommendations are used to analyse high quality PE teaching in these two schools. Each recommendation is stated and the observed lessons analysed to see if some or any meet these criteria.

### 5.5 High Quality PE Teaching Within These Lessons

Recommendation 1: Have a clear plan that sets out steps towards meeting the school's vision and expectations for PE and school sport.

The lesson observations did not reveal whether this criterion was fulfilled. In order for teachers to fulfil this requirement, they would have to be aware of the school's PE policy and any references to PE in the school handbook. They would also need to consider these visions and expectations when planning and teaching their lessons. There is little evidence, however, that teachers had a school 'vision' in mind in the lessons observed.

Recommendation 2: Share with pupils what they expect them to achieve in a way that they can understand.

By stating expectations and sharing learning outcomes with children, the intended learning is made clear to pupils. There was little evidence of teachers explaining to their pupils what they expected them to learn in the lesson; in fact, there is just one example of a teacher sharing expected outcomes within the 17 lesson observations. This was Simon's (school A) games lesson and he explained the purpose of the adapted games and the particular skills he wished the children to learn. Simon's commitment to informing the class of the learning objectives can also be seen in an extract from an interview with him:

*Researcher* So what is it about a PE lesson that you think makes it successful?

*Simon* Well it's like any lesson. You need some clear objectives for the lesson or a clear objective. You need to communicate that to the



*children and remind the children as the lesson is going on, just what the objective is and draw attention to people who are following or achieving that objective.*

*(Simon, School A, Interview, 2003)*

The more commonly found situation is illustrated in one of Michelle's (school A) lessons, where the children were left to participate in activities through which a specific skill was being developed, but the children were not told what the skill was.

**Recommendation 3:** Take into account what pupils have already learnt within and beyond school.

Taking account of previous learning within PE can mean learning that has occurred in a previous lesson, in a previous class, in a previous school or learning outside of school. Careful lesson planning in a school can help to ensure learning is progressive from year to year, and the QCA schemes of work encourage this. The lesson observations analysed here, however, show no examples of progressive learning other than building on learning from a previous (and recent) lesson. For example, in Simon's (school A) games lesson, the children were familiar with the adapted games that they were playing and this previous experience meant they could start the games without too much instruction and extend their skills from the previous lesson. Claire's (school A) dance lesson also extended previous learning as the children were dancing to the theme of Noah's Ark that term and they were reminded of the previous week's lesson and asked to repeat some of their moves. Sarah (school B) also drew on previous learning in her volleyball lesson. This was evident because the children knew how to set up the nets and were able to demonstrate some of the passes they had been taught previously. Many of the children in Val's (school B) hockey lesson had remembered how to hold the hockey stick but they were not reminded that they had already been taught this and it was apparent that some children needed to be reminded. These teachers had all drawn on recent learning to remind the children of what they already knew. Recommendation 3, however, suggests that previous learning outside of a unit of work or outside of PE lessons should also be recalled and connected. This was not observed in any of the 17 lessons.

Recommendation 4: Identify the next steps in progression and communicate these to pupils and their parents/carers.

There are no examples from the 17 lesson observations of this criteria being met. The teachers did not inform the children of what they would be doing in the next lesson and there was no communication evident between teachers and parents/carers, although it is likely that this may have occurred in the end of year reports or at parents evenings.

Recommendation 5: Give each pupil relevant learning activities and authentic contexts that interest, excite and motivate them.

This is difficult to assess as the link between the learning activities and the interest that children have in them is unclear. Lessons were 'authentic' when a purpose to the learning was provided, for example, if an adapted, small-sided version of a popular game was used. The children often seemed motivated, excited and interested but it is hard to tell if this was because of the activities they were asked to do or something else. There seemed to be one or two children in each lesson who were not interested in their own learning and, at the other extreme, there were children who were so excited by being in the PE lesson that they were asked to sit out because they could not behave. Some of the dance lessons provided an authentic context because the children knew they would be performing their dances in an assembly to the rest of the school.

Recommendation 6: Provide opportunities to analyse, assess and evaluate their own and others' work.

One way to extend children's thinking and thus learning in PE is to allow them opportunities to observe other children and to evaluate their own and other's work in PE. This kind of teaching requires time for children to engage in critical thinking and observation. Many of the teachers in these observations asked children to demonstrate certain skills to the rest of the class but there were fewer opportunities for children to analyse, assess and evaluate what they saw. Linda's (school A) games lesson was one example of providing time for the children to observe other children, discuss what they saw and suggest improvements. Rather than providing opportunities for the children to analyse, assess and evaluate their own and others' work, the teachers tended to do this themselves.



Recommendation 7: Give pupils time to think, reflect and make decisions for themselves.

Another way to extend learning is to ensure that pupils have opportunities to think for themselves. Linda (school A), for example, provided some tasks cards and an assortment of equipment and left the children to set up their own games with little teacher instruction. The children had to consider what rules they would have, how they would score, how they would win and how the teams would be structured. They were given responsibility for their own learning and all of the groups of year 3 children were able to succeed in this activity. There are no other examples within the 17 lessons of this type of instruction. The more frequently occurring situation involved the teacher explaining an activity or small-sided game to the children, rather than allowing them to explore the activity and develop the skills for themselves. The teachers appear to sometimes focus more on explaining activities than on teaching the skills needed to be successful in the activity. It could be argued, therefore, that the teachers observed in this research were able to engage pupils in activities without necessarily teaching specific skills and so their pupils' learning was limited.

Recommendation 8: Allow pupils time to wrestle with problems, while giving well-timed advice and support to advance learning and avoid frustration.

This refers to the balance that needs to be found between allowing children to explore an activity for themselves and providing explicit instruction to enable the children to succeed in the activity. Jenny (school B), for example did not spend enough time showing the children how to hold the hockey stick or demonstrating how the ball could be hit with the stick and so many of the pupils in her class became frustrated and made little progress within the lesson. Simon's (School A) games lesson progressed quickly from game to game to prevent boredom and he provided adequate instruction at the beginning of each game to allow the children to develop their skills. Linda (School A) stopped her dance lesson frequently to allow the children to demonstrate good practice. Claire (School A) divided her lesson into short bursts of activity and brought the children together in between to identify children who were performing interesting moves. However, the other teachers tended to set up activities and then allow the children to take part without providing specific instruction.



Recommendation 9: Ensure that they [teachers] use time, staff, equipment and resources in ways that keep pupils interested and learning.

Two problems that frequently occurred in lessons and that posed problems for the teachers and the pupils were children who were bored and children who were excited. The following observation notes from school A and school B illustrate this problem:

*“The children were chatty and did not listen well to instructions. The children were often made to listen to instructions while they were stood in a long straight line and it was often hard for them all to hear” (lesson observation, Harry, School A, 18.10.02)*

*“The class were generally chatty and this made teaching them quite difficult. They did not try to move to the music and seemed happier to run around making lots of noise” (Lesson observation, School A, Harry, 18.10.02)*

*“One boy did not listen well and as the rest of the class were skipping in one direction, he was quite happily skipping in the other, unaware that he was doing anything wrong” (lesson observation, School A, supply teacher, 29.10.02)*

*“The children were quite chatty and unsettled and did not listen well” (Lesson observation, Jenny, school B, 17.01.03)*

*“The children were generally chatty and did not really listen to instructions” (Lesson observation, Val, School B, 29.01.03)*

The link between boredom (or excitement) and misbehaviour in lessons is unclear but this recommendation does suggest that where teachers manage time, staff, equipment and resources effectively, children should be motivated to learn. Examples of strategies used by these teachers to engage children in learning include teachers like Linda (School A) who set up a number of activities for the children to try in a short space of time. Simon (School A) also demonstrated some good management strategies and arranged for the equipment to be set up prior to the start of the lesson, whilst Michelle (School A) created a game from collecting in the equipment. Simon (school A), who was team-teaching, used the other teacher to set up the equipment and this enabled him to get quickly into the warm-up. Sarah (school B) had shown the class how to set up the hall for a volleyball lesson in previous weeks and this practice and familiarity meant that the children were quick and efficient at setting out the equipment. Linda (school A) gave clear instructions to a small group of children whilst they were still in the classroom sitting down quietly and attentively.



The DCMS (2003) recommendations for high quality learning in PE focus attention on some ways in which children's learning can be planned to be effective. Analysing the lesson observations reveals that some aspects of these teachers' lessons could be viewed as effective and hints at ways in which the teaching could be improved. This led to a consideration of how the teachers in these two schools learnt to teach PE in the ways observed and how they could be helped to teach more effectively, such that high quality teaching and learning in PE is the outcome.

### **5.6 The Teachers' PE and PE-CPD Stories**

Having established some of the ways in which these teachers teach PE and how their pupils learn, the focus will now turn to analyse the source of these teachers' ideas and skills. In order to do this, it was necessary to establish the nature and structure of initial and continuing primary PE training undertaken by the case study teachers. The data for this part of the research comes primarily from the phase I interviews and questionnaires; data from the field notes and the phase II questionnaires are also used, where appropriate. Earlier, in chapter four, the data analysis procedures were described and Dey's (1993) three-level analysis was identified as a way of structuring the analysis. Thus the first level of analysis is a description of each teacher's experiences as individuals and is written as a narrative; these are included in Appendices L and M. As was noted earlier, these narrative accounts were shared with each teacher to ensure they were accurate. The second level of analysis categorises the data and identifies common themes, experiences and beliefs. The third level is used to connect the CPD literature with the findings from this research suggesting ways in which PE-CPD can be made effective in the primary school.

### **5.7 Teachers' Learning in PE**

The narrative accounts included in Appendix L and M provide an overview of each teacher's individual pre-service and in-service professional development. The next step in analysing these narratives is to classify the data into themes and to provide specific evidence from the data to support these themes. The teachers' learning within PE falls into three distinct categories, which were identified as themes in the data analysis section: pre-service or initial teacher training in PE, in-service PE-CPD and informal sources of PE knowledge.

## 5.8 Pre-service or Initial Teacher Training (ITT)

Four of the teachers involved in the research had been trained at specialist PE colleges. Three of these: Louise (school A), Kim (school B) and Jenny (school B) were trained as primary teachers with PE as a specialism and one, Linda (school A) was trained as a secondary PE teacher. The training received by these teachers was regarded as adequate, both in terms of quantity and quality. Linda, for example, states that she can still remember some of the things she was taught at college, despite this being over thirty years ago. Kim and Jenny both describe their training as 'thorough'. All four teachers recall training in a range of PE areas and Jenny praises the practical approach that her college took. The 'specialists' inevitably received pre-service training that was comprehensive and thorough, but this was not always the case for the non-specialists, who criticised their training. The non-specialists complained that there was not enough training and that what they received was not easily applicable to practice.

### 5.8.1 Mainly 'doing' sports

The biggest criticism of pre-service PE training is that it focussed on engaging trainees in the activities rather than showing them how to **teach** the activities:

*"I don't think I learnt anything about how to actually teach PE. We just did lots and lots of sports" (Claire, school A, interview, 7.02.03).*

*"(My PE training was) lacking in how to coach specific skills – much more learning how to do them than how to teach them" (Kim, school B, questionnaire, 2003).*

*"I remember doing various sport but have no recollection of training – you just played it" (Sally, school B, questionnaire, 2003).*

### 5.8.2 Not enough

A further problem with these teachers' pre-service training was the lack of time spent training to teach PE. Harry (school A) recalls a couple of afternoon sessions, Claire (school A) completed just one week and Simon (school A) received approximately 2 hours a week for a year. The PE specialists, unsurprisingly, received more. Kelly (school B), for example, completed one afternoon a week for three years whilst Jenny



(school B) received a thorough training in all areas of PE over three years. Some of the non-specialist teachers recognised this lack of training:

*“Ideally, it should have been maybe ten, possibly twenty afternoon sessions would have been far more useful because it gives you the chance to accumulate lots more knowledge and think, ‘oh yes, I can do that myself now” (Harry, school A, interview, 15.11.02).*

### 5.8.3 Can't remember it

It would also appear that for some of the teachers, much of what is taught during teacher training has been forgotten. This may be because of the lapse of time between learning how to teach PE and putting it into practice. Sarah (school B), whilst describing her pre-service training, comments:

*“I only really remember a couple of dance lessons – although the content has now vanished” (Sarah, school B, questionnaire, 2003).*

### 5.8.4 Enjoyable

Although some of the teachers were critical of their training, some did enjoy it but it is unclear whether there is a link between enjoyable training and training that can be translated into effective teaching in schools. Harry (school A) and Kim (school B) both comment that their PE training was fun:

*“The training that was there was very good and very enjoyable” (Harry, school A, interview, 15.11.02).*

*“(It was) fun and enjoyable” (Kim, school B, questionnaire, 2003).*

## **5.9 In-service Training/CPD**

Although the PE specialists in this research were satisfied with their pre-service training in PE, the other teachers, who had not specialised in PE, describe themselves as lacking knowledge. It might be assumed that in-service training could be used to remedy this problem. The teachers questioned and interviewed had not, however, received much in-service training and two teachers had received none. The training they had received was mainly in the form of one-day courses although some school-based training is also identified. The topics covered by courses / inset were:

- One teacher had been on an ‘assessment in PE’ course
- Three teachers had attended dance courses

- Five teachers had attended games courses
- Four teachers had attended swimming courses
- Two teachers had attended athletics courses

### 5.10 Other Sources of Ideas for Teaching PE

Having established that, for some teachers in this study, ITT and CPD were lacking in quantity and quality, it is interesting to identify the sources of their PE-teaching ideas. Given the lack of high-quality, formal training undertaken by these teachers, other sources of information included:

- Experience of playing/coaching sport themselves
- Observing colleagues
- Newspapers/magazines/books
- Informal discussions with colleagues
- Resource packs/existing lesson plans or schemes of work
- Observing outside experts/coaches
- Observing own children being taught by coaches
- Experience gained whilst teaching PE
- Advice from PE co-ordinator
- Advice from friends/relatives who are teachers

Claire's (school A) comments are particularly illustrative of this less formal learning:

*"It doesn't take much to be able to teach a PE lesson, I just learn as I go along. Every lesson I am learning and I learn from what works and what doesn't work in my lessons and from the children. The children respond differently. Also, from existing lesson plans and from planning with Melanie (colleague) and getting ideas for how to teach a lesson from her. She has so many good ideas and it helps to talk with her about our lesson plans" (Claire, School A, interview, 7.02.03)*

Teachers, in the absence of more formal training, were thus using informal sources of information to help them teach PE. They did not, however, identify these forms of informal learning as CPD or in-service training when interviewed or questioned. In summary, the teachers in this research have identified their PE learning needs and hinted at some of the ways they learn effectively. The following section connects this



to the wider CPD research literature and provides a deeper understanding of PE-CPD for primary teachers.

### 5.11 CPD and Teachers' Learning: Effective PE-CPD for Primary Teachers

Teachers' learning within PE in the two case study schools has been analysed in three broad categories. The first, pre-service or initial teacher training, is not the main focus of this research and the third, informal learning, is discussed later. The second, in-service training or CPD, will be analysed further within this section. The CPD research literature and data from the fieldwork are used to identify the features of effective PE-CPD for these primary teachers. Four of the teachers rated the courses or inset they had received within PE as being good or effective:

*"The athletics... was one of the best courses I have been on, in fact. As it taught me to do something that I would actually be able to use as a skill or ability to help colleagues in school because I would (now) be quite happy to run and organise a sports day and know how to do it effectively" (Simon, School A, interview, 18.02.03)*

*"Short tennis course (was) good" (Laura, school A, questionnaire, 2003)*

*Swimming... excellent; taught us how to teach... I particularly enjoyed training for use of the games bags and use these ideas frequently" Sarah, School B, questionnaire, 2003)*

Jenny (school B) also rates a number of the TOP Sport and sport-specific courses she has attended as being good. She describes them as follows:

- TOP sport (swimming): *"Resources excellent. Very useful...learnt coaching techniques"*.
- TOP dance: *"Again very good resources – cards, CD. Mainly practical application and some theory to help planning"*.
- TOP-up Soccer: *"Excellent resources – free goals and cards. Coaching very good – lots of ideas for teaching soccer"*.
- Athletics teaching certificate: *"very good resources and coaching techniques – how to deliver – lesson plans – super"*.
- Basketball teaching certificate: *"Very good resources – good coaching tips and lesson ideas"*.

(Jenny, School B, questionnaire, 2003).

Whilst the comments from these teachers about their PE-CPD experiences are positive, two teachers did express dissatisfaction:

*"I must admit they weren't very good; they weren't very good courses" (Linda, School A, interview, 14.11.02)*

*"It wasn't much good. It didn't help me to teach PE. It wasn't much good at all for me as a teacher. It didn't give me any ideas for how to actually teach PE" (Claire, School A, interview, 7.02.03)*

Simon (school A), Sarah (school B) and Jenny (school B) all imply that the courses they attended were successful because they taught them something practical about how to teach PE. On the other hand, Claire (school A) criticises the course she attended because it did not meet this standard. The message seems to be that for teachers to rate a course as effective, they need to be given practical ideas that they can take back to school and put into practice. The lack of practical ideas was also identified as a criticism of ITT in PE and this is something that CPD providers may need to consider. The resources and equipment on courses were identified by Linda (school A) as being superior to the ones available in school and so what appears to be possible on a course was not always possible in practice. The teachers also identified that accompanying handouts and free resources were useful: *"sometimes these places you go to have better resources. Often you are having to scribble down notes... but you can't understand them"* (Linda, school A, interview, 14.11.02). Indeed, the provision of resources was identified as important by Good & Weaver (2003), and Armour & Yelling (2004) found that teachers preferred courses that provided them with 'ideas' and 'practices'. This may help to explain why Claire (school A) found the Assessment in PE course so disappointing.

The content and structure of PE-CPD is one important consideration but teachers from this research and elsewhere also comment that effective course leaders can impact on teachers' learning. Effective course leaders in this research were enthusiastic, knowledgeable and had recent experience in the classroom:

*"I think people who do the best courses are people who perhaps to some extent still teach on a regular basis, possibly part time or something like that so they actually realise the limitations, the problems of putting into effect things they are talking about. I have got the distinct impression that the longer you are out of the classroom, the less plausible your estimations are of what is achievable within a day to day teaching environment...I guess somebody who has been out*



*of the classroom for a term or ten years is going to be increasingly out of touch". (Simon, school A, interview, 17.02.03)*

*"(Course leaders should be) enthusing and inspiring – non-threatening" (Julia, School A, athletics questionnaire, 2003)*

*"The people who run them. Their enthusiasm and knowledge [make CPD effective]" (Linda, interview, School A, 14.11.02).*

These findings are not new. Lee (2000), for example, also found that courses were rated as more effective when course leaders had recent and relevant experience. Furthermore, Armour & Yelling (2004) found teachers preferred courses that were delivered by 'good' presenters.

The content of the course and the style of presentation is clearly important but learning on a course also needs to be reinforced and consolidated, and so learning was more effective for these teachers when there were follow-up sessions or opportunities to put learning into practice soon afterwards:

*"Ideas from training need to be used as soon as possible in order to consolidate and use them most effectively" (Kim, School A, questionnaire, 2003).*

*"Some follow-up after the course (can help to make the learning more effective)" (Claire, School A, interview, 7.02.03).*

Another consideration for professional development providers then seems to be identifying and providing ways for learning to be ongoing. This would suggest that one-off courses should not be relied upon as the primary vehicle for CPD. Jenny's (school B) record does suggest that her PE-CPD has consisted of mainly one-off courses, although she was complimentary about them. Another criticism of such courses is that some are designed to provide CPD for teachers with a wide range of different needs. Tailoring courses to individual needs has been identified in the CPD research literature as important (Harland & Kinder, 1997). This drawback was also identified by Harry (school A), the NQT, who found some courses were pitched at a more advanced level: *"I would like courses to be geared to the level you are teaching at e.g. NQT"* (Harry, school A, interview, 15.11.02).

The timing of the course was also important to the teachers, many of whom had to attend courses after school. Although the benefits of this are obvious, because the

teacher is not absent from class during school hours, after-school courses are perceived as something of a 'drain' on the teachers' limited time: "*Day time courses are more effective than after school when teachers are usually tired out*" (Kim, school B, questionnaire, 2003).

Further points raised by the teachers' comments, not surprisingly, hinted that courses that were active and practical were desirable:

*"Practical courses have more impact"* (Kim, school B, questionnaire, 2003).

*"I feel the most useful inset involves doing it – I can never remember what I've read and by seeing the focus, 'in action', so to speak, it seems to be of greater value"* (Sally, School B, questionnaire, 2003).

*"Very good if experienced personally, but unless you actually see or do the activity, it is not as useful or meaningful. Cascaded information generally in the form of notes is not helpful"* (Jenny, school B, CPD questionnaire, 2003).

*"The theory combined with actually doing the task is much more easily remembered than just being given ideas"* (Jenny, School B, athletics questionnaire, 2003).

In order for teachers to be critically engaged in their learning within PE-CPD, it seems they also need to be practically engaged. Social Constructivist learning theory emphasises the importance of creating learning environments that engage the learner with the learning process. These teachers found they enjoyed courses more, they learnt more and their teaching changed as a result of taking an active and practical part in their own learning. The distinction between activity and active learning is unclear, however, and it should be remembered that a major criticism of initial teacher training in PE was that the teachers just 'did' the activity. Were the teachers rating courses where they were actively involved in physical activities or were they rating courses where they were actively involved in their own learning? Bruner (1974) extends our understanding of active learning by describing it as discovery learning and this suggests that the focus still needs to be on learning and not just activity. A balance between making PE-CPD active and practical, but relevant and applicable does seem necessary.

Social constructivist learning theory also suggests that learning is more effective when it is 'authentic' (Vygotsky, 1978; Honebein et al, 1993; Lieberman, 1995; Murphy,



1997). Exploring the importance of learning that is authentic and situated is also useful because it clarifies what this means in practice and in the context of primary PE-CPD. Analysing some of the features of effective courses attended by these teachers shows that they did identify authentic learning experiences as being important. Simon (school A), for example, discusses how an athletics course that he attended taught him something that he would be able to use in school, and Sarah (school B) was complimentary about a course that she felt had taught her how to teach. Thus, learning away from the school or the classroom could be regarded as less effective than learning that takes place in school with the pupils and with the school's resources. Analysing the data with this in mind is revealing because very few PE-CPD opportunities seem to have been provided for these teachers in their own schools. Laura and Linda (school A) both describe how useful it was to have LEA advisors come to the school to lead PE inset. Harry (school A) benefited from seeing his class being taught by me in the early stages of the research, and Jenny identified how useful it was to observe coaches teaching her class during PE lessons. Situated CPD, where available, was thus rated as effective but the data suggest that such opportunities were rare.

A further key feature of constructivist learning theory is collaboration (e.g. Murphy, 1997; Vygotsky, 1978; Kirk & MacDonald, 1998). The teachers in this research were clear that opportunities to observe each other teaching were useful. These opportunities could be in the form of demonstration lessons from course leaders or colleagues within school. Analysing where their ideas to teach PE came from is informative because it shows that the teachers were already routinely employing a number of constructivist strategies to learn about teaching PE.

Whilst an understanding of the features of effective CPD and how these fit within a framework of constructivist learning is useful, being aware of some of the barriers to CPD can help providers to overcome such barriers. On the phase I questionnaires, one question asked the teachers to consider what barriers to CPD may exist in schools. The general opinion was that time, supply teachers and money were acting as the main constraints:

*Too much marking and the classroom is left and it is probably a question of time (Linda, School A, interview, 14.11.02).*

*“Time mostly” (Claire, school A, interview, 7.02.03).*

*Only so far as there are limitations on supply cover at school (Simon, School A, interview, 18.02.03).*

*Time and money are always issues for release from teaching commitments – to me it is always difficult to please everyone regarding inset for foundation subjects, when there is such a variety of teacher knowledge/confidence/and ability within these subjects (Sally, School B, questionnaire, 2003).*

*Time constraints; there are so many – lack of funds to pay for all staff to get training so usually the PE co-ordinator (gets funding) for PE courses or the English co-ordinator (gets funding) for English (Jenny, School B, questionnaire, 2003).*

*“Funding” (Kelly, school B, questionnaire, 2003).*

These constraints are also shared by other teachers outside of the two case study schools. Tall & Smith (1997), for example, identified availability and expense of supply cover as issues in accessing CPD. Friedman & Phillips (2001) similarly found that time, cost and access were frequently cited barriers to CPD, and Helsby et al (1997) warned that CPD would not take place if there was not enough time.

## **5.12 Conclusion**

In summary, the data from phase I of the research have provided a detailed analysis of the ways in which these teachers planned for and taught PE, how their lessons matched up to the criteria for high quality PE and the pre-service and in-service training these teachers have undertaken that has led them to this point. Furthermore, data on these teachers’ perceptions of effective and ineffective CPD, based on their own experiences and needs, has been analysed in the context of the wider research literature. In short, CPD that was active and practical, yet relevant and applicable was highlighted as effective. This finding, and teachers’ use of informal learning strategies, were analysed in the context of social constructivist learning theory pointing to the need for CPD to be situated, authentic and collaborative. This analysis was, therefore, used as the basis for the design of the phase II athletics CPD. A model



of PE-CPD was designed for each school using the knowledge gained from the literature review and social constructivist learning theory, knowledge about teachers' and pupils' learning gained from the lesson observations and phase I interviews/questionnaires, contextual knowledge about the schools and the teachers, and the researchers' own experiences as a primary PE teacher. The models aimed to use this theoretical and empirical knowledge to promote and support teachers' learning in PE and therefore impact upon pupils' learning in these two schools.

## **Chapter 6: Analysing the Effectiveness of Two Models of CPD**

### **6.1 Introduction**

Theoretical knowledge about pupils' and teachers' learning, gained from the literature review and empirical knowledge from phase I of this research, enabled a model of PE professional development to be designed that was suitable for each school context and was based on features of CPD that research has identified as most likely to be effective in impacting upon teachers' practice. The models of CPD took account of how pupils and teachers learned in the two case study schools and drew on social constructivist learning theory. Thus, the overall package provided lesson plans that were designed to encourage effective pupil learning, along with weekly support sessions for the teachers to enable them to implement the lesson plans. Circumstances within the two schools meant that the model had to be adapted throughout this second phase of research. These changes are documented in Appendices G and H, which also describe the CPD in detail. The following chapter analyses the data from phase II of the research.

### **6.2 The Athletics Professional Development in School A**

The professional development offered to school A in the summer term drew on the principles of effective professional development, as identified in the introduction and by authors such as Craft (1996); NPEAT (1998); Day (1999); and PDE (2000) and was rooted in constructivist learning theory. It thus aimed to be school-based, reflective, collaborative, ongoing, practical and active. It was hoped that by using this theory of learning, teachers' learning would be optimised in the sessions and this would be translated into practice in their PE lessons. The overall purpose of the sessions was to support teachers in their teaching of athletics by providing them with the necessary resources, equipment and skills. This model of CPD aimed to use collaborative professional learning as the primary means of learning in the sessions. This provision included physical resources such as lesson plans, equipment and schemes of work, as well as opportunities for the teachers to learn how to teach specific athletic skills. The purpose of the lesson plans was to provide an example of how athletics and PE could be structured to facilitate teacher and pupil learning. As a general guide, each support meeting allowed the teachers to discuss the lessons they



had taught the previous week and then provided skills instruction to enable the teachers to teach the following week's lessons. The CPD had been designed to provide opportunities for the teachers to collaborate by discussing/sharing ideas and solving problems together. The format of the sessions can be better understood when the key events from each meeting are outlined. A diary of events is therefore included in Appendix J. This is taken from field notes written after each meeting and is interesting for its content and also because it illustrates how the research and CPD plans had to be adapted to accommodate the different circumstances in school. The teachers' attendance at, contribution to, and assessment of the CPD package are summarised in Appendices N and O.

The athletics CPD at school B was similar to that provided in school A in that the same resources were used and the same skills were taught. However, it differed because of the way the learning was structured. The sessions at school A had been based in the staff room without the children being present. The sessions at school B took place at the after-school athletics practice. The teachers had opportunities to observe and participate in a contextualised situation. They observed me teaching real children in a real situation. Opportunities for direct instruction and reflection were absent but the learning was active and situated. The format of the sessions is easier to understand when broken down into individual events or sessions and this is included in Appendix K.

### **6.3 Analysing the Effective Features of this CPD**

This section will assess the effectiveness of the two models of CPD. It will focus on features of the CPD and features of the support meetings that the teachers believed helped them to learn. Similarities and comparisons between the two schools are discussed where appropriate. Four teachers from school A and two teachers from school B returned their phase II questionnaires. Whilst this is a low response rate, a number of other data sources were analysed: field notes, taped support meetings and lesson observations. This part of the analysis, therefore, draws on all four data sources. The first section of the questionnaire asked teachers to identify how effective certain elements of the CPD package had been. A summary of these findings is presented here.

The questionnaire firstly asked the teachers to rate how effective they had found the CPD to be on a scale of 1-10, where 1 was not effective and 10 was very effective. The following responses were collated:

- The teachers in school A rated the CPD as effective with ratings of 6, 7, 9 and 10, and one teacher said it had been very good.
- The teachers in school B also found it had been effective and rated it at 8 and 9.

Secondly, the teachers were asked to tick whether a number of outcomes applied to them.

- Six of the seven teachers who returned their questionnaire felt they were more confident to teach athletics;
- Five felt that their confidence to teach PE in general had improved;
- All the teachers felt they were now better at considering how children learn when planning their PE lessons;
- Six felt they could now plan an athletics lesson more effectively;
- All but one felt they were now focusing their attention onto teaching specific skills;
- All the teachers felt that they were more knowledgeable about running, throwing and jumping techniques;
- Three believed they had learnt some effective behaviour management techniques.

Having established the outcomes from the CPD package that the teachers found effective, the focus then narrowed to discovering what helped the teachers to learn. The teachers from school A identified the following features as being effective or helpful:

- demonstrations of the skills and equipment;
- clear, high quality lesson plans;
- the box system as a way of organising the equipment;
- good ideas for teaching;
- new resources that allowed greater participation amongst the children.



The teachers from school B found the following features helpful:

- Seeing the children being taught and the skills being built up.
- Joining in with the activities themselves
- having notes after the session to reinforce their learning

The next question asked the teachers to identify which sessions they found to be most helpful. The teachers from school A rated these as follows:

- All five teachers found the running and pacing session particularly helpful;
- Two teachers found the warm up session useful;
- One rated the throwing skills session as the most helpful.

The teachers from school B rated the sessions as follows:

- Both teachers found the throwing skills session useful;
- One teacher rated the running and pacing session and the athletics challenges session as useful;
- One teacher felt the warm-up session had been beneficial.

The next two questions asked the teachers to identify aspects of the CPD model that were ineffective or unhelpful and then sought to establish some ways the CPD model could be improved:

- Four teachers from school A did not identify anything as being ineffective or unhelpful;
- One teacher from school A identified a possible lack of progression between year groups as an area that may need more thought in the future;
- The teachers from school B suggested that a whole session of observation would have been more useful than just rotating round for part of the session.

The following comments help to illustrate some of the ways in which the model of CPD could be improved. The teachers in school A (who did not observe the teaching in practice) all felt that a chance to observe a lesson would be beneficial:

*“some planned observation of whole-class teaching would be really valuable”  
(Liz, school A, questionnaire, 2003).*

*“Take a lesson so teacher can observe the lesson plan in action” (Diana, School A, questionnaire, 2003).*

*“Perhaps a demo lesson in which you teach all the basic skills and techniques and then combine them into a circuit. This could be after school so everyone could observe” (Louise, School A, questionnaire, 2003).*

One teacher in school B wanted some follow-up support in school and one requested handouts to reinforce ideas.

Finally, the teachers were asked to identify aspects of their teaching that had changed as a result of the athletics CPD:

- Three of the teachers in school A did not identify any areas of their practice that had changed.
- One identified that her lessons were more interesting and that she now understood how to plan a more effective lesson.
- The fourth teacher explained how she had changed the way she warmed up the children.
- The teachers in school B stated that, as a result of the CPD, they were able to demonstrate athletic skills to the children and were able to teach the children how to develop these skills.

This summary has provided a preliminary insight into the teachers’ experience of the two models of CPD. Whilst there is some agreement about features of these two models that were effective or ineffective, this summary does highlight the complexity of providing PE-CPD for primary teachers and suggests that future provision will have to be fluid and adapt to individual circumstances.

#### **6.4 Understanding the Complexities of CPD Provision**

The teachers’ opinions about the CPD did vary, but it was still possible to identify common themes. The two models of CPD were informed by the CPD research literature and, in theory, should have been very successful in schools. These models were, in some ways, very successful in the two schools, but did not always go as planned. The following analysis will help to explain why this was so. In order to do



this, the planned features will be addressed and reasons why these particular features were not entirely successful in schools will be analysed.

One model of CPD was initially designed but constraints within the two schools meant that changes had to be made, and ultimately two quite different models were presented to the schools. Thus the first feature of 'effective' CPD considered in this research was that it should be school-based and situated within the contexts in which it would be used.

#### 6.4.1 School-based

Cheetham & Chivers (2001) and Rhoton & Stiles (2002), for example, warn against 'one-size-fits-all professional development' and argue that different people and institutions will need professional development that meets their own individual requirements. Harland & Kinder (1997) add that CPD needs to be planned for the individual. The CPD was thus designed to take account of the varying situations in the two schools. It was not possible for either school to accept a 'standardised' model of CPD. The basic framework had to be adapted for both schools and this meant that the two schools engaged in very different activities. The ways in which the packages evolved can be seen in the diary of events in Appendix J & K. The lesson learnt from this is that providers need to be flexible and able to adapt their provision to the demands of different schools. What ought to work in theory is unlikely to work in practice unless the situations in different schools are considered.

#### 6.4.2 Situated learning

A second feature designed to be incorporated into the models of CPD was situated learning. Lave & Wenger (1991); Entwistle, Entwistle & Tait (1993); Kirshner & Whitson (1997); Stein (1998); and Knuth & Cunningham (1993) all argue that learning is most effective when it is situated and support the notion of learning taking place in the contexts in which it will be used. The teachers in school A, although teaching the lessons in accordance with the lesson plans, did find it hard to imagine how the lesson plans would translate into practice. There were a number of different interpretations regarding the set up of the field, for example. Many of the teachers expressed a wish to observe the lessons in practice and thus seemed to be asking for

learning opportunities that were situated within their school. The teachers in school B were able to observe skills being taught to their pupils, at their school and with their own equipment and seemed able to transfer what they saw into their own teaching. Two of the teachers, for example, stated in their questionnaires that observing my demonstrations had been useful. Using an after-school sports club in this way may be an effective way of providing professional development to teachers because it was something that the teachers had to attend anyway and did not place extra demands on their time.

#### 6.4.3 Ongoing

A third feature planned for these teachers was that the CPD should be ongoing. The Pennsylvania Department of Education (2000); Garet et al (2001); and Day (1999) highlight the importance of CPD being an ongoing or sustained process and so this model of CPD attempted to overcome criticisms of CPD that is provided as a single event. The CPD in both schools was thus planned to take place over a whole term and the teachers were provided with regular opportunities to consolidate previous learning. Rather than attending a one-day course where they were taught all the skills of athletics, the teachers were able to learn one skill, trial it with their class and seek clarification and confirmation at the following support meeting. The gap between learning new skills and teaching these skills to their class was planned to be less than a week, although in practice this was sometimes two weeks, and it was hoped that this would help prevent teachers forgetting what they had covered. The data suggest that teachers were able to learn the skills and teach them to their pupils over the course of the term, and in this respect, the 'ongoingness' of the CPD was helpful. This research does not, however, identify whether the teachers were able to retain this knowledge for longer. It is difficult to state how 'ongoing' CPD needs to be; this CPD was ongoing in the short term but it is likely that some skills and knowledge would have to be readdressed over the course of a career.

#### 6.4.4 Practical and Active learning

A fourth feature of the CPD was that it should be practical and active as recommended by the NFER (2000) and Day (1999). The teachers in school A, however, learnt most of the new skills in the staff room. The running and pacing session was neither active



nor practical, the throwing session did take place on the playground with the equipment but the jumping session had to be cancelled. The situation in school B was rather different because the teachers were able to observe and try new skills outside and with the equipment. It is not surprising, therefore, that the teachers in school A felt they would have learnt better if they had been able to observe the skills in practice. Interestingly, however, the session that all the teachers in school A found to be particularly useful or effective was neither active nor practical and was based on an instructional form of learning. The leader of this session was an outside expert who provided a handout and then gave verbal examples of how the teachers could teach running. Thus, it seems that although the teachers asked for active and practical sessions, and constructivist learning theory suggests that some degree of involvement in the learning process is useful, this is not always the case. There may be times when it is useful for teachers to 'receive' knowledge and then implement what they have been told. One example of how this direct instruction can work is given by Linda in her interview as she describes an example of a time when she learnt something about PE at teacher training college:

*"I can remember the games and the tennis particularly. We had a lady called Miss Jones and we never ever saw her hit the ball. She never demonstrated anything other than the 'ready' position. But she had got such theory. She spoke, she talked to us, and we did it. She might make her arms move a bit but she described everything in such detail that you just found yourself doing it. I mean she was amazing and I never saw her feet lift off the floor, you know both of them together. So she totally taught theoretically and yet we could all do backhands properly. And forehands and the service, she just put it into words beautifully and the same with hockey"* (Linda, school A, interview, 2002)

It would seem that direct instruction given by a skilled and knowledgeable instructor may, at times, be helpful. The teachers in school B did, however, appreciate the chance to observe another teacher teaching skills to pupils and were often learning at the same time and in the same way as the children and so some degree of active involvement is also seen as helpful by these teachers. It is worth considering what the research and these teachers mean by active. Social constructivist theory refers to active learning where learners are active in the learning process. However, within PE-CPD, active could refer to being active and performing skills themselves. Further clarification on this would have been helpful.



## 6.5 Collaborative Professional Learning

The key focus of this research is collaborative professional learning and so the most important design feature of this CPD was that it should employ CPL as a learning strategy. This will be discussed in greater detail in the next chapter but some key findings will be presented here. A primary aim of the CPD models was that CPL should be used to encourage learning, but this did not always occur in practice. In school A, CPL was easier to encourage because the teachers were in the staff room and were actively encouraged to explore problems together and learn from each other. Efforts were made to encourage them to generate their own ideas, rather than being given solutions and answers. The researcher would, for example, ask the teachers in school A to describe how they taught certain aspects of athletics and it was hoped they would share their teaching ideas with each other. CPL did not, however, seem to be occurring in these sessions. Moreover, the teachers were not aware of it when it did. The teachers in school B were not provided with the same opportunities for collaborative discussion and reflection and were more isolated in their learning.

A brief summary of the case study teachers' experiences of CPL within the CPD sessions is included in Appendices N and O and follows their overall assessment of the model. The teachers from school A and school B do not appear to have embraced CPL, despite my efforts to encourage and facilitate it. It could be that the teachers did not see the value of CPL, but this was not the case. All the teachers who returned the questionnaire agreed that it was a valuable form of professional development:

*"Certainly in PE. It would give the subject a better profile and develop more confidence in teaching skills" (Lnda, School A, questionnaire, 2003).*

*"Yes it would promote shared planning and greater uniformity in teaching" (Louise, School A, Questionnaire, 2003).*

*"Yes, much more useful than just 'talk and chalk'" (Janice, School B, questionnaire, 2003).*

*"Yes, as long as the teachers actually get the opportunity to work together" (Sarah, School B, questionnaire, 2003).*

It is interesting to note that despite seeing the merits of CPL, these teachers did not or were not able to utilise it as tool in their learning. The teachers were not able to



identify any opportunities within sessions when they learned collaboratively. Despite the teachers from school A failing to identify, within their questionnaire answers, any times within sessions where they learnt from each other, the questionnaire discussion does reveal that they perhaps did:

*“Lets face it, we have done the planning together, we have discussed it together and how to enhance our teaching techniques and develop our own skills with the children” (Michelle, CPD questionnaire discussion, School A, 2003).*

It seems that collaborations may have been occurring but that the teachers were not always aware of them or did not recognise them as such. Moreover, many of the collaborations were based around problem-solving rather than collaborative learning. The diary of events for school A indicates a number of problems that were resolved by the teachers in the CPD meetings. These teachers frequently made suggestions and explored solutions to problems but they were not so confident when generating subject knowledge. The teachers, themselves did not identify many opportunities within sessions where they were able to learn from or with each other but they did appear to have collaborated between sessions. This was particularly evident in School A where team teaching was more popular than in school B:

*“Sharing a session (with all of) Yr.3 on the field enabled us to bounce ideas from and towards each other... I enjoyed sharing some of the ideas presented by the other teacher” (Linda, School A, questionnaire, 2003).*

Another form of CPL was year group planning. I had hoped to attend the weekly Yr. 5 planning meeting at school B to assess whether and how CPL was being used to plan PE but every planning meeting throughout the term was either cancelled or changed and it was impossible to gather any data. Louise from school A, however did state that she had used one of their planning meetings to discuss how they could modify the lesson plans for Yr. 2

Interestingly, although CPL between all teachers was not particularly evident, the PE co-ordinators in both schools were identified as being approachable and knowledgeable:

*“Linda has great ideas for PE and shares them with those who are keen to know – very helpful” (Jennie, school A, questionnaire, 2003).*

*“Jenny is always willing to help and explain” (Sarah, school B, questionnaire, 2003).*

## **6.6 Conclusion**

This chapter has described how the CPD models were presented to the two case study schools, analysed the impact of the models on teachers' learning and discussed the complexities of CPD provision. It would seem that CPD based around CPL can be effective and the models that were adapted to suit the schools were viable in practice. However, although the two models were effective, the complex situations in the two schools meant that it may be difficult to transfer either model to another school, thus confirming the need for CPD to be situated. Furthermore, the two models had to be fluid and evolving and it was necessary to adapt them throughout the course of the research. CPL as a catalyst for learning in these two schools has been discussed briefly in this chapter. CPL is however, a key focus of this thesis and the next chapter, therefore, will further analyse the data and draw upon social constructivist learning theory to provide a deeper understanding of the challenges that may be faced when attempting to use CPL with teachers in schools.



## **Chapter 7: CPL as a Strategy for CPD in Primary PE**

### **7.1 Introduction**

The theoretical analysis of Collaborative Professional Learning undertaken in Chapter 2 suggests that CPL is an effective way for professionals to learn within the practices in which they work. However, despite drawing on this theory to design two models of athletics CPD that aimed to use CPL as a vehicle for learning, CPL remained an elusive ideal in practice. There seems to be something of a paradox between what the literature suggests will be effective and what this research found to be possible in practice and this is difficult to fully understand without a deeper analysis. It is argued in this chapter that CPL was not fully embraced by these teachers in their athletics CPD because three factors had been overlooked. Firstly, it was assumed that these teachers possessed the requisite (albeit minimal) athletics expertise necessary to learn from each other. Secondly, it was assumed that a Community of Practice centred around pupils' learning in PE existed in both these schools. Thirdly, and linked to the second point, it was assumed that Communities of Practice were, in some sense, naturally occurring in primary schools and so would not need to be established. These three assumptions/oversights are now analysed further and, in combination with three barriers to CPL, are explored as explanations for the finding that these teachers failed to collaborate effectively and productively during the athletics CPD.

### **7.2 CPL in Primary PE During the Research**

Prior to the athletics CPD, the teachers identified a number of collaborative professional exchanges in their CPD and PE-CPD questionnaires and some were observed during the year of fieldwork. In school A, lesson plans were shared between year groups and Linda, the PE co-ordinator, and Sandra, an experienced teacher, were approached by other teachers for advice, help and ideas. In addition, the teachers in year 5 and year 6 often team-taught their PE lessons. However, in analysing the teachers' experiences of learning within the athletics CPD, none of the teachers who returned their final questionnaires identified any sessions where they felt they had learned collaboratively. The teachers were also asked to identify any opportunities outside the session where they had learnt collaboratively about athletics and athletics teaching. One teacher noted that she had discussed how the lesson plans could be



modified for year two with the parallel year two teacher; another commented that when she team taught with a colleague, they had opportunities to observe each other and thus to learn from each other. Additionally, where a teacher had missed a session, there were examples where other teachers would share what they had learnt:

*“I couldn't go to the throwing session because I was taking a band so I asked Pat because I knew she had done it” (Michelle, school A, questionnaire discussion, 1.07.03).*

It would seem that some collaborations did occur and that these tended to be between teachers working in the same year group, but these collaborations were almost incidental and so were not really occurring within a Community of Practice in Wenger's (1998) terms. Moreover, the collaborations that did occur were not beneficial to all of the teachers in school A and Harry's situation is illustrative of this. Harry found teaching PE difficult because he lacked subject knowledge, experience and confidence, and this situation was compounded because he was not able to learn from his colleagues. Fuller et al (2005) found that *“where things work well [i.e. where a Community of Practice exists], bringing in newcomers is a valuable strategy in enhancing the on-going learning in a Community of Practice”* (p. 64). However, in the case of school A, this learning process did not appear to be well established. Lave & Wenger's (1991) research into Situated Learning and Legitimate Peripheral Participation is particularly helpful here and it may be beneficial to view newly qualified, inexperienced teachers and teachers new to the school as newcomers who participate on the periphery until they become adept at the practice. For new teachers in a school, this will involve the application of previous knowledge to new contexts and the adaptation of previous ways of doing the job of teaching to fit the new situation. For inexperienced teachers, this could also take the form of learning the job of teaching from 'old-timers' within the school.

The situation in school B prior to the athletics CPD reveals that the teachers did collaborate with each other to some extent in PE. Jenny, for example, was cited as being approachable and helpful. Sarah and Anna planned their PE lessons together at a weekly planning meeting and Jenny planned all of Mary's lessons. During the athletics CPD, it was difficult to encourage CPL because the structure of the athletics practice tended to isolate teachers. One questionnaire response, for example,



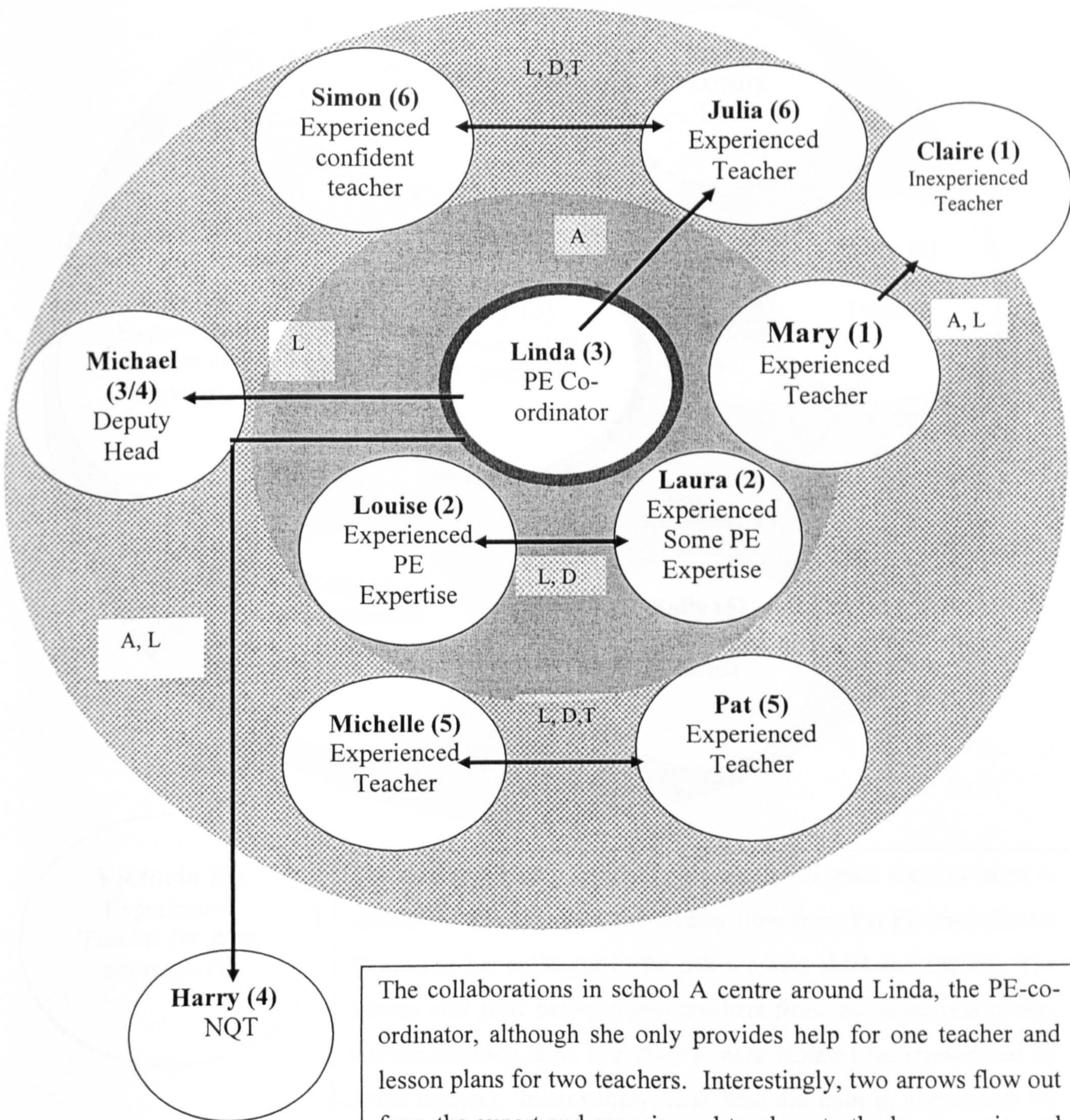
illustrates that collaborations within the sessions were not really possible for the teachers because they rotated round the activities on their own:

*“Having to run sessions for groups while others were learning coaching techniques from you (the session leader) meant we were working individually with the children or with ancillary support” (Jenny, school B, questionnaire, 2003).*

Thus, it seems that collaborations in PE did occur in school A prior to and during the athletics CPD and some of the teachers in school B did collaborate to improve their PE teaching. However, analysing these collaborative exchanges in diagrammatic form reveals more about the nature of these collaborations, which were often confined to year groups, excluded some teachers altogether, and rarely involved two-way exchanges of information. Diagrams i and ii illustrate the nature of professional collaboration in the two case study schools. The white circles represent teachers, and in both schools, the teacher at the core of the diagram is the PE co-ordinator. The teachers on the outside of this core circle become less experienced as they reach the periphery. The year group taught by each teacher is written in brackets beside the teachers’ names. A two way arrow represents mutual collaboration where teachers learn from and with each other and a one-way arrow illustrates a collaboration where the intention seems to be that one of the teachers provides information for another. The letter positioned on the arrows represents the type of collaboration: A = advice, help, ideas; D = discussions about PE; L = lesson plans; T = team teaching.



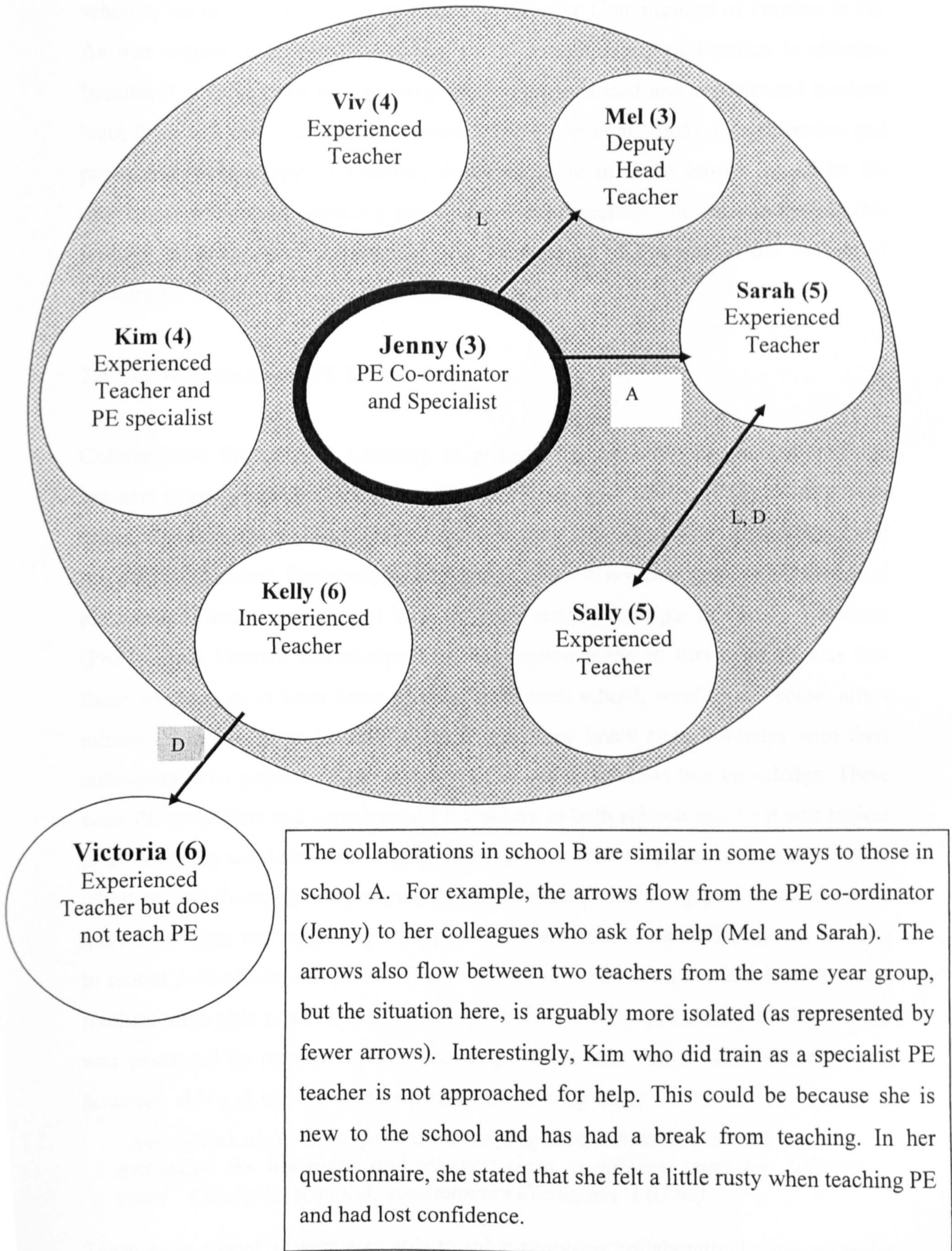
**School A**



The collaborations in school A centre around Linda, the PE-co-ordinator, although she only provides help for one teacher and lesson plans for two teachers. Interestingly, two arrows flow out from the expert and experienced teachers to the less experienced teachers who are on the periphery. The majority of arrows, however, flow between teachers from the same year group and are bi-directional.

**Figure 1: Collaborations in school A**



**School B****Figure 2: Collaborations in School B**



These diagrams illustrate that collaborations were occurring within PE in these two schools, but they do not appear to constitute effective Communities of Practice in PE. As was argued in chapter 2, learning within a Community of Practice is effective because it involves two-way learning where inexperienced and experienced teachers learn from and with each other (Azmitia, 2000; Fuller et al, 2005). In an effective and productive Community of Practice, therefore, more of these arrows would be bi-directional and would connect a greater number of teachers. In order to explain this finding, an analysis of the concept of a Community of Practice in the context of primary PE in these two case study schools is helpful.

### 7.3 The Importance of PE Knowledge

Collaborative Professional Learning in primary PE can only be successful if the teachers possess knowledge and expertise in PE. Shulman (1986; 1987) identify three types of knowledge required by teachers to do their jobs effectively: knowledge about the subject (Content Knowledge), knowledge about class management (Pedagogical Knowledge) and knowledge of how to teach certain concepts in certain situations (Pedagogical Content Knowledge). An assumption made in this research was that these teachers, or at least some of them from each school, would have some, albeit minimal, knowledge to be able to share what they knew about athletics with their colleagues. The purpose of the athletics CPD was to build on this knowledge. There were PE specialists and experienced PE teachers in both schools and so it was logical to assume they would be able to share this expertise. However, the technical nature of athletics, and throwing and jumping in particular, may have required more advanced knowledge than was originally anticipated. An analysis of the collaborative learning in school A illustrates this point. There were no recorded instances in school A where teachers were able to show each other how to throw or jump; instead, this knowledge was generated by outside experts who taught these new skills. The teachers were, however, able and willing to share their own warm-up ideas:

*“And I think also warm-ups and exchanging ideas about how we all warm up and adapt the warm-ups and interpret them in different ways for different years” (Michelle, school A, questionnaire discussion, 1.07.03).*

Teachers in school A were also able to solve problems collaboratively and examples of this include discussions about how to adapt the lesson plans for different year



groups, how to promote progression throughout the key stages and where to store the equipment. It would seem that where technical knowledge was not required, the teachers found it easier to collaborate. This point is further illustrated in an analysis of the sessions the teachers from school A found to be most effective. On the whole, the teachers preferred the sessions where their learning was facilitated by external 'experts' who shared knowledge with the teachers through direct instruction or demonstrations.

The situation in school B differed because opportunities were not readily available for teachers to collaborate *during* sessions. Their learning was gained through observations, demonstration and some participation. They relied solely on the leader of the session to provide knowledge of new skills and most appeared to have little prior athletics expertise. However, Jenny and Kim had recently been on a TOPs athletics course and both shared with me some knowledge of throwing and jumping techniques. They did not, however, share this knowledge with their colleagues during the research. In this school, the relevant expertise may have been present, but opportunities to share this were either not available or not sought.

It is not surprising that the teachers in these two schools found it difficult to collaborate and generate new ideas in athletics. With the exception of the specialists, their PE-CPD stories reveal a lack of relevant pre-service and in-service training and so it is unsurprising to find that these teachers lacked the confidence or even the inclination to share athletics content knowledge. This suggests that if professional developers wish to use CPL as a learning strategy for teachers, they will also need to ensure that teachers have sufficient content knowledge to underpin the collaborations.

#### **7.4 The Existence of a Community of Practice in Primary PE**

Ensuring primary PE content knowledge is available within PE-CPD may enable teachers to learn new skills but, on its own, may not result in effective learning for teachers and pupils; hence the suggestion that CPL is a useful learning strategy (Miller, 1988; Smyth, 1999; Wenger, 1998; Day, 1999; Toole & Louis, 2002; Kwakman, 2003). Kwakman (2003), for example, writes:

*"The reasoning behind this call for collaboration is that feedback, new information or ideas do not spring from individual learning, but to a large*

*extent also from dialogue and interaction with other people. Moreover, collaboration is assumed to create a learning culture and helps to build a community in which further learning is supported and stimulated” (p. 152).*

A second assumption behind the design of the athletics CPD was the pre-existence of some form of Community of Practice centred on pupils’ learning in PE within which such collaborations could occur but, on closer examination, it soon became clear that these communities did not exist. This section will analyse collaborative learning in PE in these two schools within the framework of Wenger’s (1998) original concept of a Community of Practice in order to provide an explanation for the situation found in the two case study schools.

#### 7.4.1 Communities of Practice: how they differ in PE

In order to discuss Communities of Practice in primary PE in these two schools, an extended definition from that given in chapter 2 is provided. This is then used to explain why Communities of Practice in PE may be different to Wenger’s original notion of a Community of Practice. Put simply, 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, 2004, p.1). In this respect, teachers in these two schools could be seen as sharing a passion for children and teaching, but not necessarily for PE. They did exchange ideas within PE occasionally, but could not be described as interacting regularly to learn how to teach PE better.

Whilst this simple definition is a useful starting point, Wenger’s (1998) theory draws on broader and more detailed criteria to define the existence of Communities of Practice in the work place. In particular three elements are important: Joint Enterprise, Shared Repertoire and Mutual Engagement. In the general life of the school, teachers in this research could be viewed as being engaged in a joint enterprise: their joint enterprise was the overall education of the pupils in their school. The evidence from this research, however, suggests that there was no joint enterprise in the context of teaching PE. This is important given the DCMS (2004) recommendation that for high quality PE to occur, staff need to have a shared vision. Wenger’s second criteria for a Community of Practice is the existence of Mutual Engagement. To be mutually engaged in Wenger’s terms, teachers would have to engage, as a group, within the field of physical education, but this did not seem to be



the case in either school. Small groups of teachers within the schools did 'engage', for example, some teachers knew who to approach when they needed help with PE, but Harry's situation as a newcomer in school A would suggest that he was not mutually engaged with his colleagues in the field of PE in school A. Wenger's third criteria for a Community of Practice is that participants have a Shared Repertoire, referring to the skills and resources that are shared in everyday practice:

*"The repertoire of a Community of Practice includes routines, words, tools, ways of doing things, stories, gestures, symbols, genres, actions, or concepts that the community has produced or adopted in the course of its existence and which have become part of the practice" (Wenger, 1998, p.83).*

In this sense, the teachers in both schools could be viewed as having a limited, but shared repertoire within PE. They shared lesson plans, resources, timetables and some ideas.

An analysis of these three elements in the two case study schools reveals that Communities of Practice may have existed at a school level, centered on the pupils and their learning generally and possibly within other curriculum subjects, but they did not exist within Physical Education despite teachers working together and sharing resources to a limited extent. If it is accepted that teachers need to be familiar with the practice of sharing, discussing, reflecting and collaborating within productive Communities of Practice before they can benefit from CPD that incorporates CPL, then it is necessary to consider whether it is possible to establish such a community within primary PE.

A useful starting place in this consideration is Wenger's (1998) own study. Although Wenger's study was based in an insurance 'claims processing unit', where the contexts were very different to those of a school, there are lessons to be learnt about how CPL could be encouraged in Communities of Practice. The claims processing unit that Wenger describes is a complex learning environment where newcomers learn the practice of claims processing from more experienced workers. They are confined by the structures of the workplace, such as the resources and power relations that exist there. Learning in this claims processing office occurs through experience, through collaborations and through problem solving and is not always a direct result of conscious or direct efforts to learn. A situation similar to this in schools could be



beneficial if teachers are to learn from and with each other within effective Communities of Practice.

Although there are some similarities between the working environments of claims processing and teaching, there are also some important differences and these need to be understood before the learning potential of establishing Communities of Practice in PE in primary schools can be analysed. Wenger describes the claims processing community as one where collaborations and exchanges of knowledge are common. Furthermore, the TCM.com (2002) definition states that “*what holds them together is a common sense of purpose and a real need to know what each other knows*” (p. 1) and this is arguably different to the situations found in schools. Whilst teachers in the two case study schools did sometimes need to know what their colleagues knew, this did not always result in them seeking out that knowledge. Harry, for example, would have benefited from asking a more experienced colleague to explain the lesson plans he had been given. Sarah would have benefited from advice about how to adapt the equipment for her volleyball lesson and Simon would have benefited from some advice about how to teach dance more effectively. Instead, they sought out alternative solutions and coped with the situations they faced. Harry accepted that he could not teach PE well and interpreted the lesson plan as best he could. Sarah tied the volleyball net to the dinner hatch and Simon tried, wherever possible, to get another teacher to teach his dance lessons.

A further difference between schools and Wenger’s (1998) original case study is the office environment in which claims processors work that enables them to ask for help as and when they need it. Teachers are generally confined by classrooms and timetables and cannot ask for help during a lesson. In Wenger’s example, if a processor receives an unusual claim, he/she asks for help and then puts that learning into practice immediately. This is not the case in schools as teachers do not have access to each other at all times. In Wenger’s study, processors learnt to do the job of claims processing. They do not really know how to process specific claims until they have to process one and then they ask for help and transfer this knowledge when faced with similar claims. Teachers in this research tended to plan their lessons in advance and so had time to seek out paper-based help (lesson plans, books, magazines). Some teachers did ask for help, but not to the extent that advice seeking occurred in claims



processing. Claims processing also differs because claims processors seem to learn from each other without the need for a facilitator, and the culture of the workplace seems to be one where asking for help is both acceptable and expected. A further difference relates to the existence of experts within Communities of Practice. In claims processing, experts were recognised as being experienced workers who regularly met their claims quotas. As has already been discussed in this chapter, expertise may not exist in many aspects of PE in schools, although PE co-ordinators do have expertise in some areas. Thus it may be that teachers struggle to find help and people to ask for advice about PE. The recent introduction of the School Sport Partnership (IYS, 2005), which encourages a partnership between primary and secondary schools and specialist sports colleges may be one step towards increasing the PE knowledge base in primary schools. Indeed, it could be argued that School Sport Partnerships are founded on the notion of creating a community of learners in PE.

There are undoubtedly a number of differences between the Community of Practice that Wenger (1998) studied and Communities of Practice that are possible in schools. This does not mean that a community or Communities of Practice did not exist within these schools. Indeed, Wenger contends that defining the boundaries of a Community of Practice too narrowly can be unhelpful:

*“Calling every imaginable social configuration a Community of Practice would render the concept meaningless. On the other hand, encumbering the concept with too restrictive a definition would only make it less useful” (p.122).*

Thus, although a precise definition of a Community of Practice is not required, Wenger does provide further guidance to help identify their existence:

*“They have a sustained history of mutual engagement. They negotiate with one another what they are doing there, how they should behave, their relation with the company [or school], and the meaning of the artifacts they use. They have developed local routines and artifacts to support their work together. They know who to ask when they need help. And they introduce into their community new trainees who want to become proficient at their practice” (p.123).*

Wenger describes Communities of Practice as having ‘boundaries’ and ‘peripheries’. A boundary is distinct and may be overlapped by other communities, whilst a periphery describes people who contribute but do not participate in the main



community. He describes these overlapping communities as ‘constellations’ and explains that boundaries may be crossed when people (brokers) from other Communities of Practice contribute, or resources (boundary objects) are shared. Stoll et al (2003) and Fuller (2005) provide some further clarification of this:

*Research on Secondary Schools suggests that the academic department-based structure may result in members of the department having a stronger sense of belonging to a departmental community than a whole community (Siskin, 1994). Similarly, in large primary schools a similar situation may emerge between staff in infant (5-7 year olds) and junior (7-11 year olds) departments, and in any school between teaching and support staff. It is therefore plausible to imagine that there may be more than one professional learning community in a school” (Stoll et al, p. 18).*

*“[it is helpful to] see subject departments as the key Communities of Practice in their study. Though cases also could be made for the school, or the wider communities of subject specialist teachers, it was the subject department that seemed of prime concern to the teachers in this research” (Fuller et al, 2005, p. 63).*

Thus it seems that where an affinity is felt between certain groups, a Community of Practice may form.

So far it has been argued that Communities of Practice are possible in schools and that CPL would be more feasible if Communities of Practice existed within PE. Wenger et al (2001) describe how Communities of Practice could be ‘cultivated’ in different institutions and it is likely that Communities of Practice within PE would need some facilitation. The data from this research illustrate how short of time teachers are and how difficult it may be for teachers to exchange ideas and information on a casual basis. It has also hinted that meeting times need to be restructured to include collaborations and that this may be best achieved if a ‘facilitator’ is present. Wenger’s concept of a Community of Practice within claims processing, however, refers to a community that is more naturally occurring:

*“Unlike more formal types of organizational structures, it is not clear where they begin and end. They do not have launching and dismissal dates. In this sense, a community is a different entity than, say a task force or a team... a community or practice takes a while to come into being and it can linger long after an official group is disbanded” (p. 94).*

Yet, although this implies Communities of Practice are not official groups with set meeting times and specific agendas, this does suggest that such groups could be the cause and/or the effect of Communities of Practice. Indeed, could it be that such



meetings may act as a catalyst for learning within an effective Community of Practice?

Strong, effective Communities of Practice in PE, akin to the naturally occurring Communities of Practice described in the introduction, were not identified within this research. The teachers from these two schools offer an explanation for this and there was some agreement that meetings would have to be formalised and organised. Wenger (1998) does, indeed recognise that some degree of formality may occur:

*“Because Communities of Practice define themselves through mutual engagement in practice, they are essentially informal. By ‘informal’, I do not mean that practice is disorganised or that Communities of Practice never have any formal status. What I mean is that, since the life of a Community of Practice as it unfolds, is in essence, produced by its members through their mutual engagement, it evolves in organic ways that tend to escape formal descriptions and control” (p.118).*

Indeed, arguing in 2004, Wenger states *“some (Communities of Practice) are formally recognized, often supported with a budget; and some are completely informal and even invisible” (p.3)*. Thus, it would seem that some degree of formality may prompt the formation of a Community of Practice. A deeper analysis of the apparent dichotomy between formal and informal learning helps to blur the boundaries between the two.

### **7.5 Communities of Practice as a ‘Natural’ Feature of Primary Schools**

An assumption underpinning the design of the athletics CPD was that Communities of Practice centered on children’s learning would already exist in primary schools and that this would include learning in PE – hence little effort was made by the researcher to cultivate the Community of Practice itself. Instead, teachers were introduced to CPL (see Appendix L) and efforts were made to encourage it, founded on the assumption that they were already operating within functional Communities of Practice of one sort or another. On reflection, this was naive and future CPD that seeks to use CPL as a strategy may need to consider this. This section argues that for productive Communities of Practice to flourish in schools centered on pupils’ learning in PE, they will need to be facilitated and formalized – possibly by PE-CPD providers.

The literature review in chapter one identifies two types of CPD: formal and informal.

(Colley et al, 2003). The message from existing research seems to be that it would be beneficial to embrace informal methods of CPD (WestEd, 2000; Colley et al, 2003; Cheetham & Chivers, 2001; Williams, 2003), without discounting the value of formal methods. Teachers in this research, for example, did learn from both formal and informal methods of CPD and to utilise one method in preference to the other would not be helpful. The question should not be which method is best, but how can these methods be utilised and combined to benefit teachers' and pupils' learning. The research literature provides advice for CPD providers and hints at how formal types of CPD can be most effective (e.g. Day, 1999; HayMcBer, 2003; Lee, 1999). There are, however, few attempts to show how informal types can be effective. The data from this research, however, point to some possible considerations. The teachers in this research suggested that CPL could be more effective if:

- Opportunities are made for colleagues to share good practice, observe each other's lessons, team-teach, lesson plan and discuss issues related to the effective teaching of PE
- Opportunities are made for schools to collaborate with other primary schools
- Opportunities are made for primary schools to receive input from specialist secondary PE teachers
- Non-contact time was made available to teachers
- Time was set aside specifically for collaboration

It is interesting to note that many of these suggestions appear to underpin the School Sports Partnerships initiative (IYS, 2005), as has been discussed in chapter three. However, School B is involved in this scheme but, at the time of the research, there was little noticeable impact.

It would seem that these teachers were indicating that they might have found CPL, generally thought of as an informal type of CPD, more effective if it had been 'formalised' in some way. Where informal learning is planned for, structured and intentional, it appears to be more engaging and so it may be beneficial to draw on the effective features of formal CPD in order to inform the effective provision of informal CPD to encourage collaborations in schools. One solution could be to blur the boundaries between the two types of CPD/learning.



Within the CPD literature, Guskey (2002) contends that effective CPD needs to be multidimensional and incorporate a range of CPD strategies or techniques. Stern & Sommerlad (1999), for example, discuss the notion of a continuous learning continuum and describe different types of learning as having differing degrees of formality. The European Commission (2000) identifies an additional category called non-formal learning, which describes learning that is structured and intentional but not provided by an educational or training institution. Indeed, a major finding from Colley et al's (2003) report was:

*"Seeing informal and formal learning as fundamentally separate results in stereotyping and a tendency for the advocates of one to see the weaknesses of the other. It is more sensible to see attributes of informality and formality as present in all learning situations" (P. i).*

Colley et al (2003) argue that viewing informal and formal learning in this way has its advantages:

- *It avoids misleading claims that either formal or informal learning is inherently superior to the other;*
- *It avoids unhelpful assumptions that different theories of learning apply uniquely to informal and non-formal learning;*
- *It makes it easier to analyse learning in diverse situations, and to recognise changes to learning if the balance between attributes of in/formality shifts;*
- *It makes transparent the fact that audit approaches to learning change its nature, and facilitates analysis of the benefits and costs of such changes;*
- *It aids the understanding of inequalities in learning, provided that wider contextual issues are also carefully considered (p. i).*

Thus it seems that there may be advantages to providing a more formal structure for Communities of Practice in school and the data from this research suggest a number of areas where this may be possible. In addition, one quote in particular, illustrates the way in which Communities of Practice could become more prominent if someone external to the school initiates and organises structured meetings.

*"Would we encourage it ourselves or have we just done it because Rebecca happened to say I want to do this and involve you, and I do think you need somebody to initiate it. I don't think it would work without that, even with the best will in the world so I think that's the part of it that makes it work. Suppose if you were to say carry on and do the next meeting without you and I think we*



*would just sit here saying what should we do and where should we go?"*  
*(Linda, school A, questionnaire discussion, 1.07.03).*

Hargreaves (2001) identifies the importance of external expertise in building school capacity, arguing that in highly effective schools, teachers may look beyond their own school for new skills. An expert or facilitator seemed necessary in these two case study schools where expert athletics content knowledge did not exist. Thus, there may be times when outside knowledge needs to be brought into the school and this is endorsed by Cordingley et al (2003) who argue that successful collaborations include: *"involving outside experts to support the school-based activities"* (p. 7). The advantages these experts could bring are numerous:

- *"providing examples of relevant existing research to inform teachers about what the evidence tells so far*
- *support in refining the development focus or enquiry question to make it both useful and manageable*
- *modelling the new practices*
- *mentoring or coaching teachers as they embarked on the new practices*
- *providing a focus for debate, encouraging professional reflection*
- *giving advice about collecting and analysing data"* (Cordingley et al, 2003, p.7).

Another way in which Communities of Practice could be formalised, as identified in the data, would be to arrange a time when teachers can meet to learn professionally and collaboratively, a belief echoed in the data:

*"Specific time needs to be set aside during the week to allow teachers to collaborate in year groups or vertically through the school on a rolling programme for all subject areas"* (Janice, school B, questionnaire B, 2003).

A rolling programme such as this could be provided through INSET days, but as Harland et al (1999) identify, INSET days are not necessarily run with in-service training in mind.

Thus, it seems that time needs to be set aside for meetings where an emphasis is placed upon CPL and this could, for example, involve a restructuring of the current format of staff meetings. Examples of structured collaborations do exist in schools: NQT provision encourages schools to provide mentoring and time for lesson observations (Williams, 2003). Finding ways to encourage this degree of (formalised) informal provision for all teachers could facilitate collaborative professional learning within Communities of Practice. The starting point for this would appear to be



recognising and valuing this provision as legitimate CPD. Colley et al (2003), for example, identify that some informal learning remains undetected in the workplace:

*“In school or college, the learning of students is the main purpose of the organisation (or in higher education, one of the main purposes). This means that schools and colleges are structured in ways that are supposed to manage and promote learning. Workplaces (including schools where teachers work) are not. In consequence, workplace (informal) learning is not recognised as learning by managers or workers” (Colley, et al, 2003, p. 37).*

Encouraging or enabling opportunities for collaboration to occur in schools is complex. Teachers within this research had been informed of the benefits of CPL and their questionnaire responses reveal that they recognized its worth as a form of CPD, but there is little evidence to show they were collaborating within PE. Thus, it may be that teachers need assistance and encouragement to learn with and from one another and a degree of structure that enables and encourages collaborations may help to encourage the formation of effective Communities of Practice within PE.

## **7.6 Barriers to CPL within Communities of Practice**

So far, the argument has been that the teachers in this research found it hard to collaborate within athletics CPD because they did not possess the necessary expert knowledge, and moreover, they were not used to participating within an effective Community of Practice in PE. Wenger (1998) describes Communities of Practice as being underpinned by a Social Theory of Learning, which is located at an intersection between a number of other theories. A consideration of some of these theories (theories of social structure, power, identity, subjectivity, social practice and collectivity) is useful because this highlights some potential barriers to productive collaborations between teachers and ways in which such collaborations may be made more successful. These barriers, informed by the data and Wenger’s (1998) Social Theory of Learning, are classified into three categories: personal, structural and practical. The implications of these barriers in relation to the effectiveness of CPL in future CPD provision are identified.

### **7.6.1 Personal Barriers**

The first type of barrier to CPL refers to personal issues and this is informed by theories of identity and subjectivity. Theories of identity consider how people form



identities within a group. Wenger (1998) provides the following explanation:

*"Who we are lies in the way we live day to day, not just in what we think or say about ourselves, though that is of course part (but only part) of the way we live. Nor does identity consist solely of what others think or say about us, though that too is part of the way we live" (p. 151).*

Theories of identity, therefore, consider how gender, age, class and experience may shape identity, and in this discussion, how a person's identity may affect their willingness to collaborate. In this research, the PE coordinators were cited as an accessible source of knowledge in primary PE on a number of occasions. The PE coordinators not only offered advice when it was sought, they also seemed confident to offer advice at other times. Linda (School A), for example, played a significant role in the athletics CPD sessions. Louise (School A), who had previously been the PE coordinator in school A also questioned aspects of the athletics and offered solutions throughout the meetings. Jenny, the PE coordinator at school B, also helped to shape the format that the CPD took. All three were experienced teachers trained in primary PE and their willingness and ability to share this with other teachers was evident.

Within primary PE, teachers may identify themselves as learners or non-learners, inexperienced or experienced, knowledgeable or unknowledgeable and these identities may impact on collaborations. Harry (school A) understands that he is inexperienced and accepts that he is not a very good PE teacher; he uses other people's lesson plans to bridge this gap in his knowledge, but does not approach anyone for further help. It is unclear why Harry did not ask for the help that he clearly needed. Issues of trust, professionalism and embarrassment may be reasons, but this assumption is not grounded in the data from this research. Williams, Prestage & Bedward (2001) offer one explanation from their research, which found that that some NQTs were happier asking other NQTs for help. Harry was the only NQT in the school at the time and so could not approach other NQTs for help. Williams et al (2001) also found that some experienced teachers did not offer help to NQTs because they did not want to do their job for them.

Theories of identity seem to imply that teachers need to view themselves as learners, as having something of value to share with other teachers about PE, and to see themselves as sharers of this knowledge and not allow issues of age/experience and



knowledge to prevent them from sharing what they do know, however small.

Theories of subjectivity help to explain why some teachers prefer to work alone. They may help to explain why teachers in some schools adopt a culture of isolation rather than a culture of collaboration. Sandholtz and Dadez (2000) state that collaborations can help to reduce feelings of isolation in schools. Isolated teachers are described by Rosenholtz (1991) as professional orphans, whilst Ward & O'Sullivan (1998) describe this as 'Teacher Isolation'. WestEd (2000) identify this as an absence of a 'culture of learning' and from their case study schools contend:

*"Teacher learning made a difference at these eight schools because it was part of a change in professional culture. The very nature of staff development shifted from isolated learning and the occasional workshop to focused, ongoing organizational learning built on collaborative reflection and joint action" (p.11).*

Ward & O'Sullivan attempt to explain the lack of learning and collaborations in some schools with their theory of 'pedagogical reductionism', which they explain as occurring when teachers are happy with the way they teach and don't feel the need to further their skills or understandings. This may have been why Simon from school A chose not to attend the athletics CPD meetings; he expressed his confidence to teach PE and identified when interviewed that he had already attended an athletics course. It is doubtful that he would not have learnt anything new from the CPD sessions and it is likely that he would have had some valuable knowledge to share with his colleagues, yet he still chose not to attend. Learning together was not a priority in school B either and the teachers often chose to observe me on their own.

Given the potential benefits of collaborations and the lack of confidence and knowledge within PE amongst a number of these teachers, why did teachers find it hard to collaborate? Issues of trust, professionalism and competition have previously been identified as potential barriers to collaborations. Murphy (1997), for example identifies that constructivist learning environments *"support collaborative construction of knowledge through social negotiation, not competition among learners for recognition"* (p.2). Thus, for teachers to collaborate they must trust each other, understand that collaborations can benefit the whole school by increasing social capacity, and view asking for and receiving help as part of their job. Issues of trust and professionalism were not explored specifically in this research, but may help to



explain why collaborations were difficult to facilitate.

### 7.6.2 Structural Barriers

Structural barriers include social, historical, cultural and management structures, which may act to prevent collaborations. These types of barrier are informed by theories of social structure and theories of power. According to Wenger's (1998) theory, social structure refers to the ways in which traditions, history, cultures and the structures of individual schools may encourage or inhibit learning within a Community of Practice. This may help to explain why teachers in this research found it difficult to engage in CPL, despite this being promoted and encouraged as an integral part of the CPD.

The history of PE-CPD provision, as described in chapter three, details the development of PE as a national curriculum subject and documents the types of PE-CPD available to teachers. An analysis of the availability of PE-CPD for teachers reveals not just a lack of provision, but a bias towards a certain type of provision; one that favours a 'traditional' model where constructivist learning is largely missing. Indeed, Garet et al (2001) make the distinction between traditional and reform types of professional development and argue:

*“Although traditional forms of professional development are quite common, they are widely criticised as being ineffective in providing teachers with sufficient time, activities, and content necessary for increasing teacher's knowledge and fostering meaningful change in their classroom practice” (p.920).*

Kennedy's (2002) classification of knowledge is a useful tool to explain why this system of CPD has developed. She identifies three sources of knowledge: craft, prescriptive and systematic. Craft sources of knowledge include: experience as a teacher, spontaneous ideas, experience as a child, experience as a parent, “how I'd feel if it were me”, own materials, fads and miscellaneous other sources. These craft sources are similar to informal sources of learning and it would seem that in the absence of formal CPD in PE, it is these sources that are relied upon, a finding confirmed by Armour & Yelling (2003). Ironically, as PE became more organised as a profession, including the establishment of externally provided CPD, there was a shift away from these craft sources. It is likely that as teachers became more accountable



for their teaching and as the PE syllabus and curricula were produced, there was a shift towards more prescribed types of CPD. Thus, Kennedy's distinctions are useful as they help to explain why certain 'types' of CPD were favoured at different times. Kennedy also identifies systematic sources of knowledge or professional development and these may have been required to help teachers to understand and adopt prescriptive sources of information, such as new curricula.

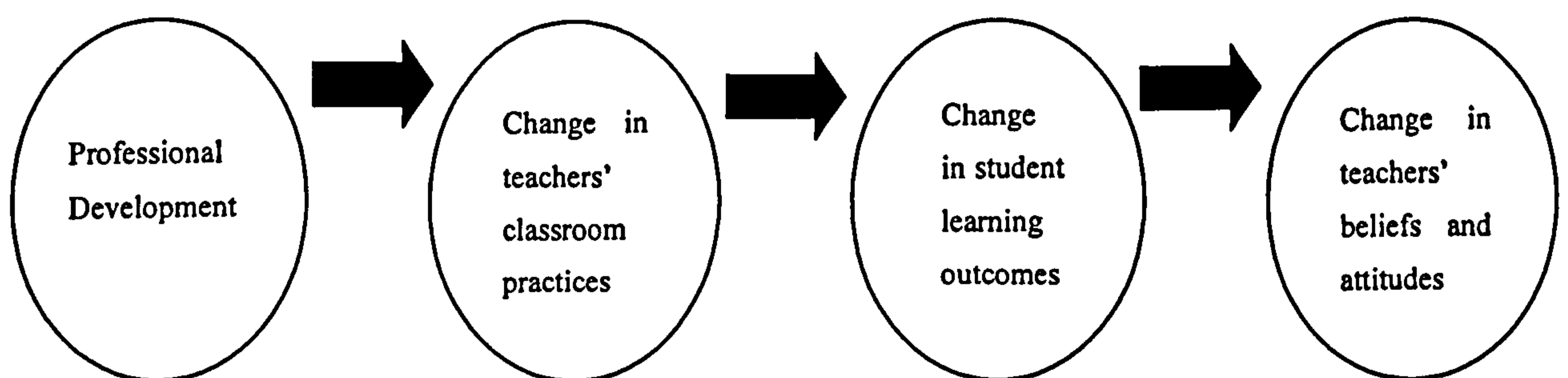
Although there was a shift towards more instructional forms of CPD in PE and more generally in the middle of the twentieth century, there was some recognition that CPL could be an effective form of CPD. For example, *The Handbook of Suggestions for Teachers* (1937) recognised the fact that teachers have a lot to learn from each other. It also suggests that teachers should have regular opportunities to discuss what they are doing with each other. The James Report (1972) provides a further example of the historical recognition of the value of CPL. Whilst there is some evidence that support for collaborative cultures in schools has existed historically, this has not been organised in a structured way and so CPL has not been embraced and utilised to full effect. Indeed, data from this research and other PE-CPD research (Armour, 2001a) indicate that PE-CPD provision has followed the 'traditional' model and is often undertaken away from schools in the form of one-off courses, which are provided by experts, where there are few opportunities for teachers to engage in reflective problem-solving activities. The types of CPD attended by teachers in this research reveal that most CPD has been based around off-site courses and that many of these have been sport specific.

Having argued that historical traditions of CPD provision may be preventing CPL from occurring in schools, it is also helpful to consider the structures or 'cultures' that exist within schools themselves that may be acting as barriers to teachers' professional collaboration. A school's 'culture', in this context, is governed by its rules and norms. If the norm within a school is for teachers to avoid collaboration and to work in isolation, then a collaborative culture would be difficult to encourage. Indeed, Talbert & McLaughlin (2002), for example, argue that professional isolation is self-perpetuating. In this research, each school had its own unique 'culture' and the CPD had to be tailored towards these cultures based on the social, historical and cultural traditions that were in place. Each school required a specific model of CPD and

neither model would have worked in the ‘other’ school. This is indicative of the ways in which social structure needs to be considered as part of theories of learning. The idea that CPD should be individualized is not new and authors such as Harland & Kinder (1997) argue that CPD needs to be planned for individuals.

Guskey (2002) argues that it may be possible to overcome cultural and institutional traditions: *“practices that are new and unfamiliar will be accepted and retained when they are perceived as increasing one’s competence and effectiveness”* (p. 7). In support of this, Lortie (1975, cited in Guskey, 1994) states *“principals and teachers, like professionals in many fields are reluctant to adopt new practices or procedures unless they feel they can make them work”* (p4). Guskey (2002) extends this with his model of teacher change. Whilst explaining how professional development programmes can initiate a change in teachers’ classroom practice, Guskey’s model can also be used to explain how teachers could be convinced of the effectiveness of CPL if they were to experience its effectiveness in practice:

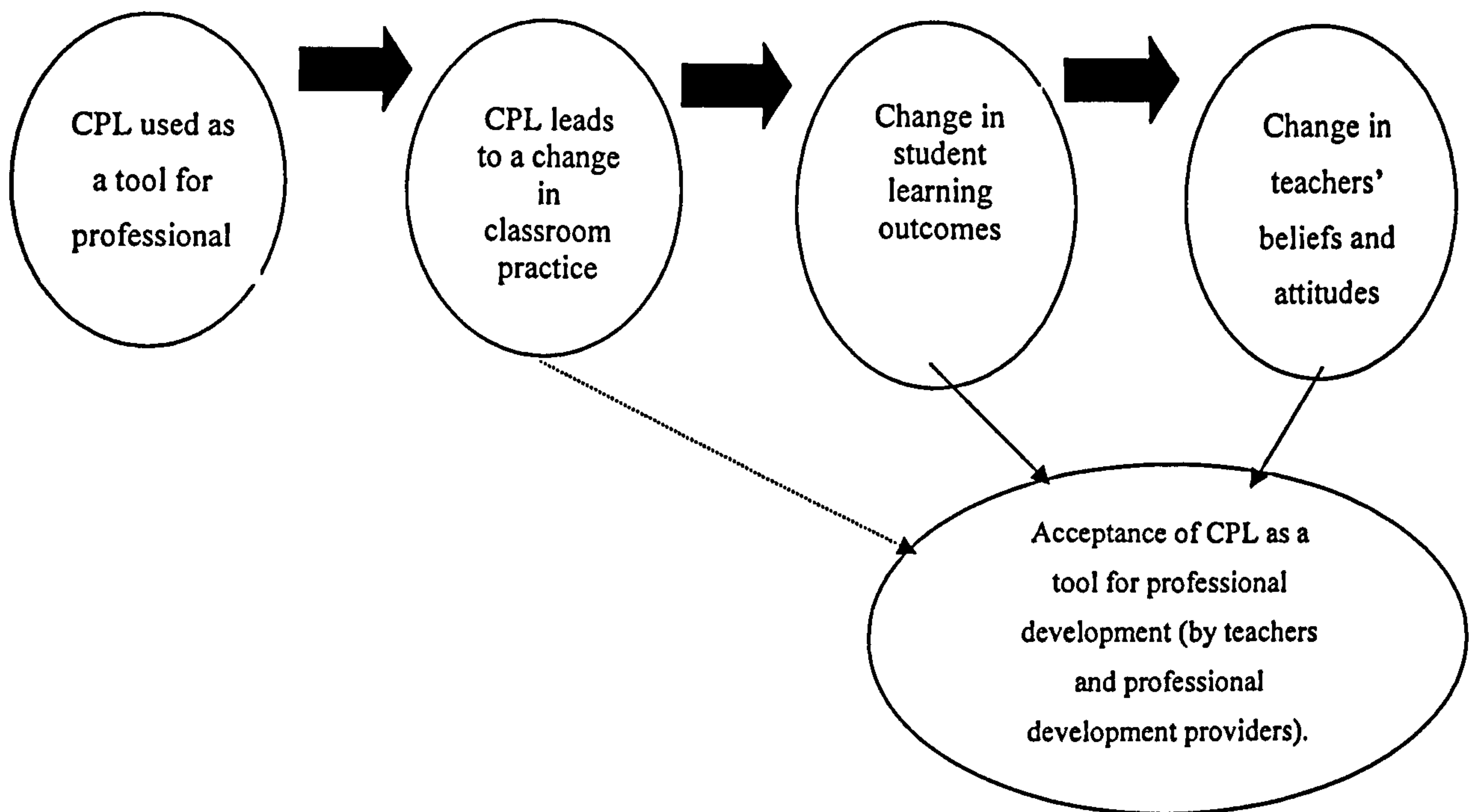
*“The crucial point is that it is not the professional development per se, but the experience of successful implementation that changes teachers’ attitudes and beliefs. They believe it works because they have seen it work, and that experience shapes their attitudes and beliefs... Practices that are found to work - that is, those that teachers find useful in helping students attain desired learning outcomes - are retained and repeated”* (Guskey, 2002, p.383-384).



**Figure 3: Guskey’s Model of Teacher Change**

Based on this, for CPL to be accepted, and in order to change teachers’ and providers’ beliefs about its effectiveness, CPL would need to be adopted in schools and seen to be effective by teachers themselves if and when better learning for pupils resulted. Thus traditional models of CPD could be supported by CPL if:





**Figure 4: Revised Model of Teacher Change: acceptance of CPL as a strategy for CPD**

It is unsurprising, therefore, that Stein, Smith & Silver (1999) argue that CPD providers will also need to radically change their preferred methods of provision:

*“Just as teachers need to relearn their teaching practice, so will experienced professional developers need to relearn their craft, which traditionally has been defined as providing courses, workshops and seminars” (p, 237).*

If traditional attitudes, beliefs and practices are acting as a barrier to CPL, then it may also be worth considering how these could be prevented from forming in the first place. Thus, it may be worth considering how teacher training institutions can familiarise trainees with the merits of CPL before they enter the profession.

In summary, theories of social structure provide one explanation for the finding that CPL wasn't embraced in these two case-study schools. The cultural, historical and institutional structures that are in place may have prevented Communities of Practice from occurring within these schools and thus may have acted as barriers to CPL. One potential solution may be for CPD providers to change their style of provision and allow teachers to experience for themselves the rewards of accepting and utilising a new, 'reform style' of CPD (Guskey, 2002). Kwakman (2003), cited earlier in this

chapter endorses this:

*“Collaboration is assumed to create a learning culture and helps to build a community in which further learning is supported and stimulated” (p. 152).*

Theories of power are extensive and extend beyond what can be considered here. In brief, what can be said is that in Wenger’s Social Theory of Learning, theories of power direct us towards a consideration of the power-relations that may exist in schools. The power-relations between head teachers, management, experienced and inexperienced teachers seem most relevant and have been considered here. For example, management structures within schools have to facilitate CPL. Indeed, Hargreaves (2001), in his theory of social capital, recognises that the leader of an effective school *“knows how to mobilise the community’s intellectual and social capital”* (149). Thus, it would seem that head teachers have to recognise, encourage and enable collaborations and this, in turn, could improve their school’s social and overall ‘capacity’. Further support for the importance of supportive head teachers is provided by Rosenholtz (1991) who argues that Head Teachers can encourage collaborations by making themselves approachable and accessible to their staff, thus creating a culture of collaboration in their school. Stoll, Bolam, McMahon, Wallace, Thomas, Hawkey & Smith (2003) contend that school leaders have a role to play in developing their school’s capacity through developing effective collaborative conditions.

This is better understood when illustrated by the attitudes of the head teachers in the two schools in this research. The head teacher in school A was rarely accessible and this made it hard to set up the CPD in the school. The head teacher was then away from the school, for personal reasons, for the spring and most of the summer term and this meant I had to arrange the CPD with the deputy head, who was always accessible and supported my ideas and plans. The CPD was then easy to implement and I was able to direct how it evolved. The head teacher in school B was also inaccessible; it was difficult to arrange the CPD session as I had hoped and he would not allow me any time outside of the athletics practice to provide opportunities for his staff to collaborate and reflect upon what they had observed.



### 7.6.3 Practical Barriers

Practical barriers include physical barriers to collaboration, such as time, money and space and are informed by theories of social practice and theories of collectivity. Theories of social practice explore how the resources within an institution may help or hinder learning. Resources in this context and in relation to CPL can mean physical or practical resources such as time, money and space, but theories of social practice extend our understanding beyond this and encourage a consideration of the social or human resources present in institutions. King & Newmann (2001) describe a school's 'capacity' as consisting of teachers' knowledge, skills and dispositions, the professional community within the school (shared purpose, collaboration, reflective inquiry), and program coherence. The concept of a school's capacity is further explained by Hargreaves (2001), who describes it as: "*the sum of the knowledge and experience of the school's stakeholders that they (schools) could deploy to achieve the school's goals*" (p.490). This is based on the intellectual and social capacity of the school.

The intellectual capacity of the school refers to the experience, knowledge and skills of the people working within that school. It could be argued that the PE co-ordinators in the case study schools in this research had a high intellectual capital, whereas some of the less experienced teachers and Harry, in particular had low intellectual capital within PE. Hargreaves (2001) argues that individual teachers having a low intellectual capacity is not problematic because a school with a high capacity is able to share knowledge and experience amongst its stakeholders, and schools able to do this are seen to have a high social capacity:

*"In a school rich in social capital, the high levels of trust generate strong networks and collaborative relations among its members and stakeholders. High levels of social capacity in a school strengthen its intellectual capacity"* (p. 490).

The concept of a school's capacity is a useful tool for understanding collaborations in these two case study schools. Whilst the intellectual capacity for some aspects of PE in the two schools could be regarded as adequate, the schools seemed to lack the social capacity to share this knowledge and so their overall (PE) capacity was reduced. In the case of athletics, however, it would appear that the intellectual capacity was also inadequate.

Williams, Prestage and Bedward (2001) help to clarify this further. They make distinctions between three different types of collaboration within schools: individualised, structured and spontaneous. An individualised school, where teachers rarely collaborate with one another could be seen as having low levels of social capital. A school where the collaborations are structured could be seen as being similar to the two schools in the research because collaborations were planned for and did occur to some extent. Schools where spontaneous collaborations occur would be seen as having high levels of social capital. Some spontaneous collaborations did occur in these two schools, although teachers didn't always recognize these as opportunities to learn or as professional development. Some teachers, for example, chose to team-teach and some teachers approached other colleagues for help and advice. Thus it is these spontaneous collaborations occurring within schools high in social capacity that need to be encouraged.

Hargreaves (2001) writes of a school's social and intellectual capacity, and King & Newmann discuss how a school's social capacity can be improved through strong professional communities, but it may be worth considering how a school's 'structural' capacity may also prevent collaborations. The teachers in these two case study schools struggled to attend all of the athletics CPD sessions. The field-notes from the research reveal a number of reasons for this, for example, the teachers were sometimes busy doing other things, sometimes they forgot and sometimes they were absent. This lack of available free time is indicative of a problem experienced by teachers on many levels in many schools. Julia from school A believed that time pressures in the school and after school were preventing more collaborations because time wasn't put aside for teachers to develop and share ideas. Moreover, a study of primary schools (2001-2002) by Galton, Macbeath, Page & Steward reveals:

*"Since the 1970s, there has been a reduction of approximately 1 hour and 30 minutes per day in the time that teachers could spend working informally, but collaboratively with colleagues" (p.8).*

*"There is relatively little contact with other adults and some teachers may have virtually no time for a conversation with another adult during a whole day" (p.16).*



*“There are fewer times when spontaneous activities between colleagues can be initiated, such as supporting one another and making a display” (p.38).*

And perhaps most importantly:

*“Teachers overwhelmingly put ‘lack of time’ as the main impediment to their ability to fulfil their daily responsibilities satisfactorily. It is the clearest single message emerging from this study...” (p.87).*

In addition to time, other structural resources did seem to exist in the schools that were preventing collaborations. WestEd (2000) provides an explanation of this:

*“Rather than squandering faculty meetings on routine information that can be communicated through newsletters or emails, principals and teachers use this time to focus collaboratively on the ‘real work’ of teaching” (WestEd, 2000, p. 33).*

Staff meetings were cited by two teachers in this research as being ‘pointless’ and ‘boring’ and so even when opportunities were provided for teachers to meet, they were not structured in a way that encouraged collaborative exchanges. Although some teachers expressed a lack of confidence and knowledge in PE, they overcame this by using lesson plans written by other teachers or ones that existed in the school from previous years. It may be that these lesson plans were acting as a barrier to collaborations because they were detailed enough to allow teachers to adopt them as their own without having to seek out extra help.

Theories of collectivity also offer an explanation for why collaborations may not occur in schools. In school A, teachers came together twice a week for an organised staff meeting, but they felt this wasn’t productive. Jennie, for example, stated *“Instead of sitting in pointless meetings being talked to by curriculum leaders about paper work and systems, we need to share in more practical experiences” (Jennie, school B, questionnaire, 2003).* This does seem to imply that staff meetings at the time were based around administrative tasks, rather than on learning. A feature of contemporary school life confirmed by Galton et al (2002) is that staff meetings do take up some non-teaching time:

*“One of the most substantive changes to non-teaching activities is in time devoted to formal meetings, a mere 6.5 minutes per week in the seventies rising to around 2 hours a week today”*

Whilst spending a significant amount of time in staff meetings (a scheduled 2.5 hours a week), teachers in School A did not have a scheduled time to plan lessons together. Galton et al (2002) found in their research that teachers valued opportunities for joint planning, they were not given time away from their classes to do so. This was also found to be the case in this research and it may explain why teachers in school B struggled to attend their weekly planning meetings. Their free time was in short supply and two teachers found themselves squeezing in their planning meetings before school started. When this failed, they planned half of the curriculum subjects each with little or no collaboration. Moreover in school A, the teachers recognised a lack of opportunity as the primary barrier to collaboration and this was caused by a lack of time.

This understanding suggests that collaborations in these two schools could be more successful if staff meetings were restructured with a focus on learning that emphasized CPL. Galton et al (2002) suggest that providing informal opportunities for teachers to do things together, like joint displays, could be beneficial and allow more opportunities for informal discussions and CPL:

*“The workplace has to fulfill certain conditions that are not present in schools at the moment, thus we are obliged to build these conditions into school organizations in order to stimulate learning” (Kwakman, 2003, p. 167).*

*“Powerful collaborative learning... doesn't just happen. In fact, traditional school organization works against it, walling teachers off from one another. Almost everything about the school... is oriented toward going it alone professionally. Few schools are structured to allow teachers to think in terms of shared problems and broader organisational goals” (WestEd, 2000, p. 26).*

## 7.7 Conclusion

The teachers in this research struggled to collaborate during the implementation of a model of athletics CPD that aimed to foster CPL as a strategy for CPD. A deeper analysis, drawing on the data and the CPD literature suggests that whilst a Community of Practice probably did exist at the school level, it did not exist for PE and the teachers in these two schools did not possess adequate knowledge about athletics to share their skills with each other. Thus any future CPD that draws on collaborations as a tool for learning will need to consider these issues. This research tentatively suggests that in order to operate CPL effectively in PE, expert knowledge will be



needed and that Communities of Practice will need to be facilitated to encourage CPL. Moreover, a number of constraints, based upon three barriers (personal, structural and physical), have been explored in relation to the data and Wenger's Social Theory of Learning. This analysis provides a number of options for future providers of CPD, which will be discussed in the next chapter.

## **Chapter 8: Conclusion, Recommendations and Limitations**

### **8.1 Introduction**

The research outlined and discussed in this thesis was partially shaped by my personal experience as a primary teacher who had to teach PE. The research undertaken here may have been sparked by a personal interest, but it was also the result of an increasing emphasis by the government and policy makers in England on teachers' and pupils' learning (e.g. Campbell, 2002; Reynolds et al, 2000). Whilst the CPD literature indicated how teachers' learning could be enhanced through certain types of CPD, it was unclear how this would translate into practice in primary Physical Education and so the research aimed to answer the following questions:

**Primary research question:**

**Can Collaborative Professional Learning be employed as an effective strategy in supporting and enhancing teachers' learning in two case study schools?**

**Secondary research questions:**

- 1. What does the international research literature on CPD tell us about teacher learning and about effective CPD?**
- 2. What are the current and most common learning strategies used in primary PE-CPD and what are their historical origins?**
- 3. How do teachers in two case study primary schools teach PE and why do they teach it that way?**
- 4. Could PE-CPD be effective for these teachers if designed around the principles of collaborative professional learning situated within a Community of Practice?**

Thus, in order to answer these questions, an extensive literature review was conducted and this focused on international CPD research within and outside of teaching and Physical Education. The fieldwork phase of this research drew on the literature review and it was then possible to address the research questions.



## 8.2 An Overview of The Research Process and Findings

An extensive review of the CPD literature was conducted prior to the fieldwork phase of this research. The purpose of this was to provide a context for the research and also to inform the fieldwork phase. Thus, CPD was defined as “*all types of professional learning undertaken by teachers beyond the initial point of training*” (Craft, 1996, p. 6). This ‘loose’ definition enabled a range of CPD strategies to be considered and moved the focus from formal learning to a wider spectrum of professional learning activities. This consideration allowed a range of learning activities to be identified and these were then analysed to establish the types and means of CPD that teachers’ and researchers view to be effective. In summary, therefore, effective CPD was defined as that which is:

- Active (Day, 1999)
- School-based (NPEAT, 1998)
- Relevant - to an individual’s needs and values (Harland & Kinder, 1997)
- Continuous and on-going (Day, 1999; Garet et al, 2001; PDE, 2000; NPEAT, 1998)
- Individually planned (PDE, 2000; NPEAT, 1998)
- Reflective (Hay McBer, 2000)
- Collaborative – Sharing of ideas (NFER, 2000; Smyth, 1990); Problem solving (PDE, 2000; NPEAT, 1998)
- Contextualised – school based (Day, 1999); situated learning (Lave & Wenger, 1991); situated cognition (Brown, Collins & Duguid)
- Hands-on and practical (NFER, 2000)
- Well structured and focused - especially Courses (NFER, 2000)
- Delivered by good presenters with recent and relevant experience (NFER, 2000)
- Is a process not an event and therefore needs follow-up support and activities (PDE, 2000)

- Multidimensional – an optimal mix of elements is needed (Guskey, 1994).

All the features of effective CPD were important considerations, but two features were analysed as a focal point of this research: collaborative professional learning and school-based or situated CPD. CPL was, therefore, grounded in its theoretical underpinnings as a part of social constructivist learning theory. Its potential as a strategy for CPD was then analysed, both within the literature review and as a result of the fieldwork.

Whilst chapter two provided an overview of the CPD and social constructivist research literature, it did not consider the types of CPD that teachers have been offered in the past. It was felt that an understanding of past initiatives may help to explain the current situation and the prevalence of certain types of CPD. Indeed, this historical analysis in combination with Wenger's social theory of learning (theories of social structure) did ultimately elicit an explanation for why teachers relied on certain types of CPD and enabled reasons to be identified for why teachers found it hard to accept CPL as a strategy for CPD. Moreover, a study of the history of PE and PE-CPD revealed that a lack of appropriate pre-service and in-service training has been a problem for some time. This helped to explain a lack of confidence to teach PE amongst the teachers in this research and also focused attention on the importance of PE subject knowledge and expertise amongst primary school teachers. Thus, it was possible to partially attribute the teachers' inability to collaborate in this research to a lack of subject knowledge or expertise in PE rather than a reluctance to collaborate.

The literature review and the historical analysis of primary education, primary PE, CPD and PE-CPD, as well as the researcher's own experiences of teaching PE in a primary school informed and guided the field-work stage of this research. The methodology section, therefore, drew on the researcher's own experiences and the case was made for reflexivity in this research. The research adopted an interpretive stance and qualitative methods. Two case study schools were chosen for this research and the fieldwork process lasted for one academic year. The research fell into two phases. The first sought to create an understanding of the teachers, their PE teaching and the contexts of the two schools and this knowledge was drawn upon to design two models of athletics CPD, which were delivered in the second phase of the research. In the first phase of the research, lessons were observed and the teachers interviewed,



and this lead to an understanding of the teachers' PE and PE-CPD experiences. The second stage of the research investigated the potential of CPL as a strategy for CPD. A model of athletics CPD, designed specifically for each school context and based on the principles of constructivist learning theory and effective CPD literature, was delivered in the two schools over the course of the summer term. Athletics lessons were observed in one school and, at the end of the CPD, a questionnaire was administered to participating teachers in both schools to assess the impact of the two models and to identify the potential of CPL as a strategy for CPD.

The data were analysed using a constructivist approach to grounded theory (Charmaz, 2000). Themes were identified throughout the research process and this enabled evidence to be confirmed or disconfirmed following repeat visits to the schools. After the data collection stage, the research findings were more formally analysed and codes were allocated so that the data could be categorised into themes. The analysis chapters were structured around these themes and were analysed at three different levels: description, classification and 'making connections' (Dey, 1993).

The first chapter of analysis (chapter 5) focused on the schools, the teachers and their PE teaching. The analysis considered the ways in which the teachers in the two case study schools planned for and taught PE and whether their PE lessons matched the features of high quality PE identified by the DCMS (2003). The teachers' pre-service and in-service training was, on the whole, limited with the PE specialists (unsurprisingly) receiving the most training. The teachers' CPD stories revealed a lack of knowledge and experience in some areas of PE, as well as highlighting effective means of CPD provision for these teachers. These findings formed the basis of the athletics CPD packages that were delivered during phase two of the research.

The second chapter of analysis (chapter 6) concerned the effectiveness of the two models of CPD. Firstly, the two models were described and then their impact was analysed. The findings from this phase of the research confirm previous findings about effective CPD. The teachers, for example, felt that the models were effective because they were school-based, situated, ongoing, practical and active. Whilst CPL had been planned as a central feature of both models of CPD, it became evident that

the teachers were not learning in this way and although they were learning how to teach athletics more effectively, they were not utilising CPL to enable them to learn. The final chapter of analysis (chapter 7) explored possible reasons why the teachers from the two case studies did not use CPL as a strategy for CPD. Three main reasons were suggested: firstly, the teachers in these two schools did not possess sufficient subject knowledge about athletics to share with their colleagues; secondly, it was assumed that a Community of Practice existed in these two schools and so teachers would be adept at collaborating to learn; and finally that a Community of Practice would occur naturally and did not need facilitating. As these assumptions were found to be inaccurate, it could be argued that a consideration of ways in which Communities of Practice could be facilitated around primary PE would be useful. Thus, Wenger's (1998) social theory of learning was used as a tool for analysis and three barriers to CPL were identified: personal, structural and practical.

In summary, the research conducted in the two case study schools indicated that although CPL can be an effective tool for teachers' learning, the ways in which these collaborations should be initiated, structured and supported are unclear. Whilst CPL can undoubtedly be used as an effective learning strategy, a number of barriers have been identified through this research and these need to be considered and overcome if CPL is to be embraced in the future.

### **8.3 Recommendations**

Three barriers to CPL were identified and illustrated in the previous chapter: personal, structural and practical. These barriers were identified as the result of a thorough analysis of the data and represent the end of this piece of research. Thus any attempts to overcome these barriers will be the focus of future research and cannot be addressed comprehensively here. It is possible, however, to offer recommendations that are grounded in the data generated from this research.

The teachers in this research did collaborate to learn to some extent but, as has been argued in the previous chapter, they were not collaborating within effective Communities of Practice and so the first recommendation from this research is that steps are made to cultivate Communities of Practice within PE and to create a culture



of collaboration in schools. This recommendation has implications for the National CPD programme in England, which relies partly on a 'cascade' model of CPD, and assumes that teachers will take what they have learnt on a course back to their schools to share with other teachers through a process of collaboration. The findings from this research suggest that there may be some difficulties in schools with the level of collaboration required to ensure effective learning. If the National CPD Programme is to be effective, this will need to be addressed. Kwakman (2003), Guskey (2002) and WestEd (2000), amongst others, do offer some advice and all appear to be arguing that collaborations need to be initiated before they can 'snowball'. Guskey, for example, implies that teachers would need to experience the benefits of CPL before they embraced it as an effective strategy for CPD. The data from this research and the research literature, however, indicate that this is not an easy task and so the recommendation for the National PE-CPD Programme is that CPD providers may need to offer support to facilitate collaborations.

One of the most frequently cited barriers to collaboration by teachers in this research is a lack of time. Understanding this barrier is complex as the teachers' lack of 'time' is not as simple as a lack of 'free time'. Teachers do cite a lack of free time because they are busy doing administrative tasks such as marking and planning, but a deeper analysis reveals that part of the problem may be the ineffective use of the limited free time that teachers do have. Thus, the second recommendation is that schools manage their available 'free' time more effectively. As WestEd (2000) contend:

*Making time, taking time, finding more meaningful ways to spend time...rethinking and restructuring time is central to building a learning culture (p. 32).*

The teachers in this research did provide some useful suggestions for how this could be done:

*"instead of sitting in pointless meetings being talked to by curriculum leaders about paper work and systems, we need to share in more practical experiences" (Julia, school A, questionnaire discussion, 2003).*

*"Team teaching i.e. Year group lessons rather than class - children responding to two teachers taking different sections of the same lesson and assisting each other and a shared discussion as a statutory part of each lesson" (Pat, school A, CPL questionnaire, 2003).*

*“Sharing a session - year 3/4 all on field - enabled us to bounce ideas from and towards each other - children remained focussed and worked well - I enjoyed sharing in some of the ideas presented by the other teacher” (Linda, school A, CPL questionnaire, 2003).*

In addition to these direct quotes, fieldnotes taken during visits to the schools suggest that some teachers spend a lot of time planning their PE lessons, but they rarely get opportunities to plan these together; a finding confirmed by Galton et al (2002). Thus Sandholtz’ (2002) arguments are pertinent to this discussion:

*“In order to support ongoing professional development within schools, organizational structures such as schedules, staffing, patterns and grouping arrangements – need to be redesigned to create time for teachers to work and learn together” (p. 828).*

It is worth considering how staff meetings could be restructured to encourage collaborative professional learning, how lessons could be restructured to encourage team-teaching and how lesson planning could be restructured to be more collaborative. The most effective way of doing this remains unclear and will need to be the focus of future research. Armour & Yelling (2003), however, provide some guidance when they argue that simply asking teachers to give more of themselves is not a viable solution: *“it seems clear that the way forward for professional development is to develop a model that reduces rather than increases such pressures”* (p. 11). Nevertheless, some preliminary recommendations are possible.

### 8.3.1 Restructuring Meeting Time

WestEd (2000) concur with Julia’s (School A) comment about staff meetings and provide a useful starting point:

*“Rather than squandering faculty meetings on routine information that can be communicated through newsletters or emails, principals and teachers use this time to focus collaboratively on the ‘real work’ of teaching” (p. 32).*

Whilst this suggestion could free-up staff meetings for collaborations, it is worth remembering the argument in the previous chapter that such meetings may need some structure to them. Jenny’s (school B) comment is illustrative of this point:

*“It would benefit all staff to have a rolling programme of professional development – you could have a 4 year rolling programme for each area of PE and train whole staff in the generic skills and how to deliver and where to find out more info or support” (CPD questionnaire, 2003).*



The data analysed in previous chapters also highlight the importance of external organisation and expertise and so it is likely that a rolling programme of CPD in staff meeting time would require outside experts and somebody to arrange and chair meetings.

A further point for consideration is the use of INSET days, which may not always be used for staff training. Harland et al (1999) found that factors outside of the school's control often dictated the content of INSET days. Moreover, Sandholtz (2002) found that 70% of respondents in her research described in-service experiences as their worst professional development experiences, with one teacher stating:

*"The [worst experiences] are the times where we are grouped together to generate reams of meaningless data in order to create some document that has little or no impact on my day-to-day existence in class. If inservices add more work without a direct and tangible benefit to my students, I don't see the value" (p. 822).*

Thus, it is recommended that INSET days are used more productively, with a focus on staff training and potentially through the use of CPL. Given the potential of employing CPL within productive Communities of Practice, as exemplified in the research literature, it could be argued that developing such Communities of Practice is a key task for INSET.

### 8.3.2 Restructuring lessons to enable team teaching

Four teachers in school A did team teach and the benefits of this were observed during the lesson observations, from teacher comments in CPD sessions and from questionnaires. These benefits included practical advantages such as sharing the work load and being able to set up equipment quickly, as well as enabling the teachers to learn from one another through observation and discussion. Whilst Michelle frequently team taught with Pat, and Simon often team taught with Julia, this style of teaching was not the norm for other teachers in this research. It is unclear from the research how team teaching could be facilitated in schools but it does seem to provide useful opportunities for collaborative learning.

### 8.3.3 Restructuring lesson planning to encourage joint planning

Joint planning meetings may also present opportunities for teachers to meet and collaborate, and they have the potential to free-up extra time for teachers. The teachers in school A, despite having 2.5 hours per week of scheduled meeting time, were not provided with time for joint planning. The teachers in school B were in a similar situation, but Sarah and Sally attempted to overcome this by meeting after school on a Wednesday. Their lack of free time did, however, act as a barrier to these meetings and they struggled to meet at this time every week. Thus, it seems that teachers need structured staff meeting time to learn collaboratively about teaching and subject-specific matters and they need scheduled opportunities for joint planning.

### 8.3.4 Other points for consideration

Whilst these three areas have emerged strongly as avenues for future research, the data from this research and other research findings point to some additional factors that may be worth considering:

1. Theories of power (Wenger, 1998) highlight the potential of managerial support in cultivating Communities of Practice. In support of this, research by Rosenholtz (1991) and Hargreaves (2001) indicate the importance of head teachers who promote collaborations in their schools. Moreover, Knight (2002) puts forward five suggestions that heads of department could consider to encourage collaborative learning in their departments and these suggestions are equally applicable to primary head teachers. Of these, the first two are most relevant to this discussion: that heads of department should publicise the learning message; and that heads of department should be role models (for learning). Considering this in conjunction with Guskey's (2002) model of teacher change, it would seem that the management in schools, and head teachers in particular, need to be made aware of the learning potential of CPL and act as good role models within a culture of collaboration.
2. Sandholtz (2002) argues that teachers in her research were provided with the opposite of what they wanted for professional development. If teachers are being provided with professional development that they find to be ineffective, then Stein, Smith & Silver's (1999) contention that CPD providers also need to change their style of provision to foster less traditional models of CPD, is



important. This point has implications for the National CPD programme in England, which despite unifying PE-CPD, could still be accused of relying on traditional methods of delivery. If teachers' learning in PE is to be enhanced through professional development programmes, then less traditional methods of provision may prove more effective and CPL would be a worthwhile consideration.

3. If cultures of isolation and collaboration are self-perpetuating (Talbert & McLaughlin, 2002) and if Guskey's model of teacher change (2002) can also be applied to the acceptance of CPL as a strategy for CPD, then this would suggest that CPL needs to be initiated before it can flourish. Indeed Armour & Yelling (2004c) argue that "*Schools need to view themselves as learning organizations*" (p. 5). Or as Keay (2004) argues in her conclusion: "*A view that considers it unprofessional to criticize another teacher's practice would need to be challenged, and a culture that expected practice to be questioned would need to be developed*" (p. 5).
4. Galton et al (2002) found that there are few opportunities in the school day for teachers to spend time with one another and so it is worth considering how teachers could be encouraged to do activities together as a prompt for informal conversations and potential CPL.
5. Although online learning communities were not a consideration within this research, their potential should not be ignored:
 

*"Given the proliferation of online CPD initiatives, it could be argued that one of the new routes is already signposted; although e-support is no panacea, it does have the potential to overcome some of the very real financial implications of providing school-based CPD support"* (Armour & Yelling, 2004b,p.110).
6. The two models of athletics professional development used in this research had to be adapted to each school's individual needs. Moreover, findings from PDE (2000) and NPEAT (1998) stress the importance of CPD that is planned for the individual. It would seem that CPD needs to be adapted for individual teachers' and schools' needs, and this is a finding that the national CPD programme has attempted to embrace. The use of an audit of professional development within the programme helps ensure that PE-CPD is tailored to the individual, however, modules are standardized and so more needs to be done to ensure teachers' individual needs are met.

## 8.4 Limitations

The journey from the start of this research has been an interesting one and has confirmed some of what I already assumed about schools, teachers and PE as well as opening my eyes to new possibilities. My own experiences acted as a basis for this research and so it was comforting to find other teachers who shared similar beliefs and experiences. At times, these experiences clouded my views and directed the research, yet it was refreshing to experience new opinions and to re-consider some of the ways I viewed teaching and schools. Thus, being a teacher and starting the research with some pre-conceived ideas was a strength and a weakness of this research. In a similar way, the decision to use case study research also had its advantages and disadvantages. I was able to conduct a piece of research with depth and understanding, but as has already been discussed, this meant it was difficult to apply my findings from the two schools to schools in general. Targeting a greater number of schools with questionnaires (in addition to the in-depth case study research) may have overcome this problem, but the volume of data to be analysed from the two case study schools meant that further data collection was impractical. In relation to the choice of case study schools, it was beneficial to conduct research in two schools and my familiarity with these two schools acted as an interesting contrast, but it may have been more productive to have focused my efforts on just one school. Though gathering data from two schools allowed similarities and differences to be discussed, this could have compromised the depth of research that would have been possible if just one school had been studied. For example, if I had focused my efforts on one school, it would have been possible to collect more detailed data from more teachers, and to have attempted to resolve the CPL issues encountered. Indeed, one of the main limitations encountered within this research was the low number of questionnaires returned and the difficulties of conducting interviews. In particular, it would have been beneficial to have observed more lessons during the term of athletics CPD.

## 8.5 Final Thoughts

I hope this research has been worthwhile. In my opinion, the teachers involved with it did benefit and I would argue they learnt how to teach athletics more effectively. The models of CPD designed for this research were rated as effective by the teachers but



they did not utilise CPL to facilitate their learning. Thus, it seems fitting that any future research should build on these models, but should also investigate ways of encouraging CPL and cultivating Communities of Practice in schools. The recommendations in this chapter, therefore, provide an appropriate starting place for future research. Indeed, it was argued in the methodology section that rather than being able to generalize from case study research, the conclusions from one piece of research should act as the starting point for the next (Cronbach, 1975). Thus Cronbach's notion of a 'working hypothesis' and Crotty's contention that outcomes are suggestive rather than conclusive are useful and may help to prevent 'grand generalizations' (Stake, 1995) and 'over-claiming' (Gorard, 2002). It should, therefore, be noted that the recommendations in this chapter are not firm conclusions and whilst it is possible to state with some confidence that CPL can be used as a strategy for CPD within primary PE, identifying how this can be done is less clear. The considerations in this chapter, therefore, should act as the focus of future research:

*"We have much work to do and many questions to answer in order to provide high-quality professional development to all teachers. It will take many different types of inquiries and a vast array of research tools to generate the rich source of knowledge needed to achieve this goal" (Borko, 2004, p.13).*

## References

Angrosino, M. V., & Mays de Perez, K. A. (2000) Rethinking observation: From method to context. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research (Second Edition)* (pp. 673-702). London: Sage.

Armour, K. M. (2001) *Connective Pedagogies: Continuing Professional Development for Physical Education Teachers*. Paper presented at the BERA, Leeds University.

Armour, K. M. (2002) Continuing Professional Development: Five Steps towards Effective Provision for Experienced Physical Education Teachers.

Armour, K. M. & Fraser, S. (2004a) *Evaluation of the National PE and School Sport Professional Development Programme: interim report (first 6 months of year 1)*. Loughborough: School of Sport and Exercise Sciences.

Armour, K. M. & Fraser, S. (2004b) *Evaluation of the National PE and School Sport Professional Development Programme: interim report 12 months (year 1)*. Loughborough: School of Sport and Exercise Sciences.

Armour, K. M., & Jones, R. L. (1998) *Physical Education Teachers' Lives and Careers. PE, Sport and Educational Status*. London: Falmer Press.

Armour, K. M., & Yelling, M. R. (2003) *Physical Education Departments as Learning organisations: the foundation for effective professional development*. Paper presented at the British Educational Research Association, Edinburgh.

Armour, K. M. & Yelling, M. (2004a) Professional 'development' and professional 'learning': bridging the gap for experienced physical education teachers. *European Physical education Review*, 10 (1), 71-93.

Armour, K. M., & Yelling, M. R. (2004b) Continuing Professional Development for Experienced Physical education Teachers: Towards Effective Provision. *Sport, Education and Society*, 9 (1), 95-114.



Armour, K.M. & Yelling, M. (2004c) *Learning from Each other: compensatory professional development in physical education*. Paper Presented at the Pre-Olympic Scientific Congress (Thessaloniki, Greece, 6<sup>th</sup>-13<sup>th</sup> August)

Atherton, J. (2001) *Constructivist Theory*. Available online at:  
[www.dmu.ac.uk/~jamesa/learning/constructivism.htm](http://www.dmu.ac.uk/~jamesa/learning/constructivism.htm)

Azmitia, M. (2000) Taking Time Out from Collaboration: Opportunities for Synthesis and Emotion Regulation. In R. Joiner & K. Littleton & D. Faulkner & D. Miell (Eds.), *Rethinking Collaborative Learning*. London: Free Association Books.

Bailey, K. D. (1982) *Methods of Social Research*. London: Collier McMillan Publishers.

Bailey, S., & Vamplew, W. (1999) *100 Years of Physical Education 1899-1999*. Reading: Physical Education Association.

Barab, S. A., & Duffy, T. M. (2000) From Practice Fields to Communities of Practice. In D. H. Jonassen & S. M. Land (Eds.), *Theoretical Foundations of Learning Environments*. London: Lawrence Erlbaum Associates.

Barnard, H. C. (1961) *A History of English Education from 1760*. University of London Press: London.

Bassey, M. (1998) *Fuzzy Generalisation: an approach to building educational theory*. Paper presented at the British Educational Research Association Annual conference, The Queen's University of Belfast Northern Ireland (27th-30th August).

Bassey, M. (1999) *Case Study Research in Educational settings*. Buckingham: Open University Press.

Berliner, D. C. (2001) Learning about and learning from expert teachers. *International Journal of Educational Research*, 35(1), 463-482.

- Blumfeld-Jones. (1995) Dance as a mode of research representation. *Qualitative Inquiry, 1*, 391-401.
- Bogdan, R. C., & Biklen, S. K. (1982) *Qualitative Research for Education: an introduction to theory and methods*. London: Allyn and Bacon, Inc.
- Bolam, R. (1994) The Impact of Research on Policy and Practice in Continuing Professional Development. *British Journal of In-Service Education., 20* (1), 35-46.
- Borda, O. F. (2001) Participatory (Action) Research in Social Theory: Origins and Challenges. In P. Reason & H. Bradbury (Eds.), *Handbook of Action Research: participatory inquiry and practice*. Sage: London.
- Bradley, H. (1991) *Staff Development*. London: Falmer Press.
- Bransford, J., & CTGV. (1990) *Anchored Instruction*. Available online at: [www.educationau.edu.au/archives/cp/04a.htm](http://www.educationau.edu.au/archives/cp/04a.htm)
- Brehony, K. J. (2000) Montessori, individual work and individuality in the elementary school classroom. *History of Education, 29*(2), 115-128.
- Brown, J. S., Collins, A., & Duguid, P. (1989) Situated Cognition and the Culture of Learning. *Educational Researcher, 18*(1), 32-42.
- Brown., S., & McIntyre, D. (1988) The Professional Craft Knowledge of Teachers. *Scottish Educational Review, special issue* (39-47).
- Browne, J. D. (1979) *Teachers of Teachers: A History of the Association of Teachers in Colleges and Departments of Education*. London: Hodder and Stoughton.
- Bruner, J. S. (1968) *Toward a Theory of Instruction*. New York: W.W.Norton & Company.
- Bruner, J. S. (1969) *The Process of Education*. Cambridge: Harvard University Press.



- Bruner, J. S. (1974) *Beyond the Information Given: studies in the psychology of knowing*. London: Allen and Unwin.
- Brunetti, G. J. (1998) Teacher Education: A look at its Future. *Teacher Education Quarterly, Fall*, 59-64.
- Bullough, R. V., & Pinnegar, S. (2001). Guidelines for quality in autobiographical forms of self-study. *Educational Researcher*, 30 (3), 13–22.
- Burchell, H., Dyson, J., & Rees, M. (2002) Making a Difference. *Journal of In-Service Education*, 28(2), 2002.
- Burgess, R. (1988) Conversations with a purpose: the ethnographic interview in educational research. *Studies in Qualitative Methodology*, 1, 137-155.
- Burton, L. (2001) Confounding Methodology and Methods. *British Journal of Sociology of Education*, 22(1).
- Campbell, D. (1963) Social Attitudes and Other Acquired Behavioral Dispositions. In S. Koch (Ed.), *Psychology: a study of science* (pp. 94-172). New York: McGraw Hille.
- Campbell, A. (2002) *Research and Professional Development*. Paper presented at The British Research Association's Annual Conference, Exeter University, 12-14<sup>th</sup> September.
- Chalmers, D. (1996) *The Conscious Mind*. New York: Oxford University Press.
- Charmaz, K. (2000) Grounded Theory: Objectivist and Constructivist Methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed., pp. 509-535). London: Sage.

Cheetham, G., & Chivers, G. (2001) How professionals learn in practice: an investigation of informal learning amongst people working in professions. *Journal of European Industrial Training*, 25(5), 248-292.

Clark, D. (1996) *Schools as learning communities*. London: Cassell

Cochran-Smith, M. (2000) The Future of Teacher Education: framing the questions that matter. *Teaching Education*, 11(1), 13-24.

Cochran-Smith, M. & Lytle, S. (1993) *Inside/Outside: Teacher research and knowledge*. NY: Teachers College Press.

Cocklin, B., Coombe, K., & Retallick, J. (1996) *Learning Communities in Education: Directions for Professional Development*. Paper presented at the British Educational Research Association, Lancaster, 12-15th September.

Cohen, L., & Manion, L. (1989) *Research Methods in Education* (3rd ed.). London: Routledge.

Cohen, L., Manion, L. & Morrison, K. 2000: *Research Methods in Education* (Fifth Edition). Routledge Falmer. London: England.

Colley, H., Hodkinson, P., & Malcom, J. (2003) *Informality and formality in learning: a report for the learning and skills research centre*. London: Learning and Skills Research Centre.

Coolican, H. (1997) *Introduction to Research Methods and Statistics in Psychology*. London: Hodder & Stoughton.

Cordingley, P., Bell, M., Rundell, B., & Evans, D. (2003) *The Impact of Collaborative Professional Development (CPD) on Classroom Teaching and Learning*. GTC and the Centre for the Use of Research and Evidence in Education. Available online at: [www.gtce.org.uk/research/eppistudy.asp](http://www.gtce.org.uk/research/eppistudy.asp)



- Craft, A. (1996) *Continuing Professional Development*. Routledge: London.
- Creswell, J. W., & Miller, D. L. (2000) Determining Validity in Qualitative Inquiry. *Theory into Practice*, 39(3), 124-131.
- Cronbach, L. J. (1975) Beyond the Two Disciplines of Scientific Psychology. *American Psychologist*, 30(2), 116-127.
- Crotty, M. (1998) *The Foundations of Social Research*. London: Sage.
- Curtis, S. J. (1957) *History of Education in Great Britain* (4th ed.): University Tutorial Press: London.
- Darling-Hammond, L. (1994) *Professional Development Schools: Schools for developing a profession*. London: Teachers College Press.
- Day, C. (1999) *Developing Teachers: The Challenges of Lifelong Learning*. Falmer: London.
- Day, C. (2002) The Challenge to be the Best: Reckless Curiosity and mischievous motivation. *Teachers and Teaching: theory and practice*, 8(3/4), 421-434.
- Day, C. (2004) Change Agendas: the roles of teacher educators. *Teaching Education*, 15(2), 145-158.
- DCMS. (2003) *High Quality PE and Sport for Young People*. Nottingham: DFES and DCMS.
- Denzin, K. (1978) *The Research Act*. New York: McGraw-Hill.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (1994) *Handbook of Qualitative Research*. London: Sage.

- Denzin, N. K. and Lincoln, Y. S. (Eds.) (2000) *Handbook of qualitative research*. 2nd edition. Thousand Oaks, CA: Sage.
- Dewey. (1956) *The Child and the Curriculum. The School and Society*. London: University of Chicago Press.
- Dey, I. (1993) *Qualitative Data Analysis: A user friendly guide for social scientists*. London: Routledge.
- DFEE. (2000) *What is Good Practice in CPD and Why Does it Work?* Available online at: [www.dfes.gov.uk/index.htm](http://www.dfes.gov.uk/index.htm)
- DFEE (2001) *Learning and Teaching: A Strategy for Professional Development*. Nottingham: DfEE publications.
- DFES. (2004) *The Impact of School Sport Partnerships: the results of the 2003/04 PE, School Sport and Club Links Strategy*: Department for Education and Skills.
- Dombkowski, K. (2001) Will the Real Kindergarten Please Stand Up?: defining and redefining the twentieth century US Kindergarten. *History of Education*, 30(6), 527-545.
- Edmundson, J. (1956) *The PE Teachers' Handbook for Primary Schools*. London: Evans.
- Entwistle, N., Entwistle, A., & Tait, H. (1993) Academic Understanding and Contexts to Enhance it: A perspective from research on student learning. In T. M. Duffy & J. Lowyck & D. H. Jonassen (Eds.), *Designing Environments for Constructive Learning*. London: Springer-Verlag.
- Etzioni, A. (1969) *The Semi-Professions and Their Organisation*. New York: Free Press.



European Commission (2000) *A Memorandum on Lifelong Learning*. Available online at: [www.eaea.org/doc/memoEN.pdf](http://www.eaea.org/doc/memoEN.pdf)

Evans, J. & Penney, D. (1994) Whatever Happened to Good Advice? Service and inspection after the Education Reform Act. *British Educational Research Journal*, 20(5), 519-533.

Evans, K. (1985) *The Development and Structure of The English School System*. London: Hodder and Stoughton.

Falk, B. (2001) Professional Learning Through Assessment. In A. Lieberman & L. Miller (Eds.), *Teachers Caught in the Action*. London: Teachers College Press.

Friedman, A. (2001) Action Science: Creating Communities of Inquiry in Communities of Practice. In P. Reason & H. Bradbury (Eds.), *Handbook of Action Research: participatory inquiry and practice*.

Friedman, A., & Phillips, M. (2001) *Leaping the CPD Hurdle: A study of the barriers and drivers to participation in Continuing Professional Development*. Paper presented at the BERA, University of Leeds (13<sup>th</sup> – 15<sup>th</sup> September).

Fullan, M., & Hargreaves, A. (1992) *Teacher Development and Educational Change*. London: Falmer Press.

Fuller, A., Hodkinson, H., Hodkinson, P., & Unwin, L. (2005) Learning as Peripheral Participation in Communities of Practice; a reassessment of key concepts in workplace learning. *British Educational Research Journal*, 31(1), 49-68.

Galton, M., MacBeath, J., Page, C., & Steward, S. (2002) *A Life in Teaching? The impact of change on primary teachers' working lives*: National Union of Teachers.

Garet, S. M., Porter, C. A., Desimone, L., Birman, B. F., & Yoon, K. S. (2001) What Makes Professional Development Effective? Results from a National Sample of Teachers. *American Educational Research Journal*, 38(4), 915-945.

- Geertz, C. (1975) *The Interpretation of Cultures*. London: Hutchinson & Co.
- Giddens, A. (1984) *The constitution of Society: Outline of the theory of structuration*. Cambridge: Polity Press.
- Gillard, D. (1998) *The National Curriculum and the Role of the Primary Teacher in Curriculum Development*. The Education Archive. Available online at: [www.kbr30.dial.pipex.com/educ07.shtml](http://www.kbr30.dial.pipex.com/educ07.shtml)
- Gillham, B. (2000) *Case Study Research Methods*. London: Continuum.
- Glaser, B. G. (1998) *Doing Grounded Theory: issues and discussions*. California: Sociology Press.
- Glaser, B. G., & Strauss, A. L. (1967) *The Discovery of Grounded Theory: strategies for qualitative research*. California: Sociology Press.
- Good, J. M., & Weaver, A. (2003) Creating Learning Communities to Meet Teachers' Needs in Professional Development. *Journal of In-Service Education*, 29(3), 439-449.
- Gorard, S. (2002) *Warranting research claims from non-experimental evidence*. Cardiff: ESRC Teaching and Learning Research Programme - Research Capacity Building Network.
- Greenbank, P. (2003) The Role of Values in Educational Research; the case for reflexivity. *British Educational Research Journal*, 29(6), 791-802.
- Guba, E. G., & Lincoln, Y. S. (1985) *Naturalistic Inquiry*. London: Sage.
- Guba, E. G., & Lincoln, Y. S. (1989) *Fourth Generation Evaluation*. Newbury Park: C.A. Sage.
- Guile, D., & Young, M. (1998) Apprenticeship as a Conceptual Basis for a Social Theory of Learning. *Journal of Vocational Education and Training*, 50(2), 173-192.



Guskey, T. R. (1994) Results-Oriented Professional Development: In Search of an Optimal Mix of Effective Practices. *Journal of Staff Development*, 15, 42-50.

Guskey, T. R. (2002a) Professional Development and Teacher Change. *Teachers and Teaching: theory and practice*, 8(3/4), 381-391.

Guskey, T. R., & Sparks, D. (2002 b) *Linking Professional Development to Improvements in Student Learning*. Paper presented at the American Educational Research Association, New Orleans (April, 2002).

Hardman, K., & Marshall, J. (2001) *World Wide Survey on the State and Status of Physical Education in Schools*. Available online at:  
<http://education.man.ac.uk/pecrisis/summary.htm> Accessed:

Hargreaves, A. (2002) Teaching and Betrayal. *Teachers and Teaching: theory and practice*, 8(3/4), 393-407.

Hargreaves, D. H. (2001) A Capital theory of School Effectiveness. *British Educational Research Journal*, 27(4), 487-492.

Harland, J., Ashworth, M., Atkinson, M., Halsey, K., Haynes, J., Moor, H., & Wilkin, A. (1999) *Thank you for the days? How schools use their non-contact days*. Slough: NFER.

Harland, J., & Kinder, K. (1997) Teachers' Continuing Professional Development: Framing a Model of Outcomes. *Journal of In-Service Education*., 23(1), 71-84.

Have, T. P. (1999) *Doing Conversation Analysis*.

HayMcBer. (2000) *A Model of Teacher Effectiveness*. Report by Hay McBer to the Department for Education and Employment. Available online at:  
[www.teachernet.gov.uk/haymcber](http://www.teachernet.gov.uk/haymcber)

- Helsby, G. (1995) Teachers' Construction of Professionalism in England in the 1990s. *Journal of Education for Teaching*, 21(3), 317-332.
- Helsby, G., Knight, P., McCulloch, G., Saunders, M., & Warburton, T. (1997) *'Professionalism in Crisis', A Report to Participants on the Professional Cultures of Teachers Research Project*. Lancaster: Lancaster University.
- Heron, J., & Reason, P. (2000) Co-operative inquiry: research with people. In P. Reason & H. Bradbury (Eds.), *Handbook of Action Research: participative inquiry and practice*. London: Sage.
- Heron, J., & Reason, P. (2001) The Practice of Co-Operative Inquiry: Research 'with' Rather Than 'on' People. In P. Reason & H. Bradbury (Eds.) *Handbook of Action Research: participative inquiry and practice*. London: Sage.
- Hitchcock, G., & Hughes, D. (1989) *Research and the Teacher: A Qualitative Introduction to School-based Research*. London: Routledge.
- Hixson, J., & Tinzmann, M. B. (1990) What Changes Are Generating New Needs for Professional Development? *North Central Regional Educational Library*. Available: [http://www.ncrel.org/sdrs/areas/rpl\\_esys/profdev.htm](http://www.ncrel.org/sdrs/areas/rpl_esys/profdev.htm).
- HMSO. (1937) *Handbook of Suggestions for the Consideration of Teachers and Others Engaged in the Work of the Public Elementary Schools*. London: HMSO.
- HMSO. (1972) *Teacher Education and Training*. London: Her Majesty's Stationery Office.
- Honebein, P. C., Duffy, T. M., & Fishman, B. J. (1993) Constructivism and the Design of Learning Environments: Context and Authentic Activities for Learning. In T. M. Duffy & J. Lowyck & D. H. Jonassen (Eds.), *Designing Environments for Constructive Learning*. London: Springer-Verlag.



- Howarth (Armour), K. M. (1986) *Physical Education in the Primary School: A sense of 'failure'. Unpublished MA (Educ) Thesis.* London University: Institute of Education.
- Hubbard, G., Brackett-Milburn, K., & Kemmer, D. (2001) Working With Emotions; issues for the researcher in fieldwork and teamwork. *International Journal of Sociological Research Methodology*, 4, 119-137.
- Huberman. (1983) Recipes for Busy Kitchens. *Knowledge: Creation, Diffusion, Utilization*, 4(4), 478-510.
- Hutchby, I., & Wooffitt, R. (1998) *Conversation Analysis: Principles, Practices and Applications.*
- IYS. (2005) *School Sport Partnerships - Annual monitoring and evaluation report.* Loughborough: The Institute of Youth Sport and The School of Sport and Exercise Sciences.
- Johnson, R. B., & Onwuegbuzie. (2004) Mixed Methods Research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- Jonassen, D. H. (1994) Thinking Technology: toward a constructivist design model. *Educational Technology*, 34(4), 34-37.
- Keay, J. (2004) *The Impact of Continuing Professional Development on Practice: examining the induction experiences of newly qualified teachers of physical education.* Unpublished PhD Thesis, University of Kent
- Kennedy, M. M. (2002) Knowledge and Teaching. *Teachers and Teaching: theory and practice*, 8(3/4), 355-370.
- King, M. B. (2002) Professional Development to Promote School-wide Inquiry. *Teaching and Teacher Education*, 18(3), 243-257.

- King, M. B., & Newmann, F. M. (2001) Building School Capacity Through Professional Development: Conceptual and Empirical Considerations. *The International Journal of Educational Management.*, 15(2), 86-93.
- Kirk, D., & MacDonald, D. (1998) Situated Learning in Physical Education. *Journal of Teaching in Physical Education*, 17, 376-387.
- Kirk, D., Penney, D., Burgess-Limerick, R., Gorely, P. and Maynard, C.A. (2002) *A-Level Physical education: The reflective performer*. Leeds: Human Kinetics.
- Kirshner, D., & Whitson, J. A. (1997) *Situated Cognition: Social, Semiotic and Psychological Perspectives*. London: Lawrence Erlbaum.
- Kleinsasser, A. M. (2000) Researchers, Reflexivity and Good Data: writing to unlearn. *Theory into Practice*, 39(3), 155-162.
- Knuth, R. A., & Cunningham, D. J. (1993) Tools for Constructivism. In T. M. Duffy & J. Lowyck & D. H. Jonassen (Eds.), *Designing Environments for Constructive Learning*. London: Springer-Verlag.
- Kuhn, T. S. (1970) *The Structure of Scientific Revolutions*. London: University of Chicago Press.
- Kwakman, K. (2003) Factors Affecting Teachers' Participation in Professional Learning Activities. *Teaching and Teacher Education*, 19, 149-170.
- Labaree, D. F. (2003) The peculiar problems of preparing and becoming educational researchers. *Educational Researcher*, 32(4), 13-22.
- Lave, J., & Wenger, E. (1991) *Situated Learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Lawson, J., & Silver, H. (1973) *A Social History of Education in England*: Methuen, London.



- Lee, B. (2000) Teachers Perspectives on CPD. *Education Journal*, 50, 28-29.
- Lieberman, A. (1995) Practices that Support Teacher Development: Transforming Conceptions of Professional Learning. *Phi Delta Kappan*, 76, 591-596.
- Lieberman, A. (2000). Networks as learning communities: Shaping the future of teacher development. *Journal of Teacher Education*, 51(3), 221-227.
- Lincoln, Y. S. (1993) *Notes Toward a fifth generation of evaluation: Lessons from the voiceless, or, toward a postmodern politics of evaluation*. Paper presented at the Fifth Annual Meeting of the Southeast Evaluation Association, Tallahassee, FL.
- Lincoln, Y. S. (2001) Engaging Sympathies: Relationships between Action Research and Social Constructivism. In P. Reason & H. Bradbury (Eds.), *Handbook of Action Research: Participative Inquiry and Practice*. London: Sage.
- Lincoln, Y. S., & Guba, E. G. (2000) The Only Generalisation is: there is no generalisation. In R. Gomm & M. Hammersley & P. Foster (Eds.), *Case Study Method*. London: Sage.
- Little, J. W. (1990) The persistence of privacy: Autonomy and Initiative in teachers' professional relations. *Teachers College Record*, 91(4), 509-536.
- Loughran, J., Mitchell, I., & Mitchell, J. (2003) Attempting to document teachers' professional knowledge. *Qualitative Studies in Education*, 16(6), 853-873.
- Lowe, R. (1988) *Education in the Post-War Years: A Social History*: Routledge, London.
- Mason, J. (2002) *Qualitative Researching*. London: Sage.
- May, T. (1999) *Social Research: issues, methods and process*. Buckingham: Open University Press.

- McBride, R. (1989) Interview Techniques in Research. In P.W. Darst, D.B. Zakrajskek, V.H. Mancini, *Analyzing Physical Education and Sport Instruction* (pp. 423-430). Champaign IL: Human Kinetics.
- McIntosh, P. C. (1952) *Physical Education in England Since 1800*. London: G. Bell & Sons, Ltd.
- McIntosh, P. C., Dixon, J. G., Munrow, A. D., & Willetts, R. F. (1981) *Landmarks in the History of Physical Education*. (3rd ed.). London: Routledge & Kegan Paul.
- McQueen, C. (2001) Teaching to Win. *Phi Delta Kappan*, 38(1), 12-15.
- McRae, D., Ainsworth, G., Groves, G., Rowland, R., & Zbar, V. (2000) *A National Mapping of School Teacher Professional Development*. National Curriculum Services (Canberra, Department of Education, Training and Youth Affairs). Available online at: [www.qualityteaching.dest.gov.au](http://www.qualityteaching.dest.gov.au)
- Mechikoff, R. A. E. (1998) *A History and Philosophy of Sport and Physical Education, from ancient civilisations to the modern world*. New York: WCB McGraw-Hill.
- Merriam, S. B. (1988) *Case Study Research in Education*. London: Jossey-Bass.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage
- Miller, L. (1988) Unlikely Beginnings: The district office as a starting point for developing a professional culture for teaching. In A. Lieberman (Ed.), *Building a professional culture in schools*. New York: Teachers College Press.
- Morgan, I. (1997) The Preparations of Physical Education Teachers During Initial Teacher Training. *The British Journal of Teaching Physical Education*, 28(3), 18-20.



Murphy, E. (1997) *Characteristics of Constructivist Learning & Teaching*. Available online at: <http://www.cdli.ca/~elmurphy/emurphy/cle3.html> Accessed:

Mycue, S. (2001) The professional circle. *Kappa Delta Pi*, 38(1), 28-32.

Nespor, J. (2000) Anonymity and Place in Qualitative Inquiry. *Qualitative Inquiry*, 6(4), 546-569.

NFER. (2000) *Teachers' Perspectives on CPD*. Berkshire: NFER.

Nicholls, G. (1997) *Collaborative Change in Education*. London: Kogan Page.

Nilges, L. M. (2001) The Twice-Told Tale of Alice's Physical Life in Wonderland: Writing Qualitative Research in the 21st Century. *Quest*, 53, 231-259.

NPEAT (National Partnership for Excellence and Accountability in Teaching) (1998) *Improving Professional development: Eight Research-based Principles*. Available: [www.npeat.org](http://www.npeat.org)

Oliver, K. L. (1998) A Journey into Narrative Analysis: A Methodology for Discovering Meanings. *Journal of Teaching in Physical Education*, 17, 244-259.

Patton, M. (1978) *Utilization - focused evaluations*. California: Sage.

PDE. (2000) *Nine Design Principles of Effective Professional Development*. Pennsylvania Department of Education. Available online at: [www.pde.psu.edu/staffdevelopment/ninedesign.html](http://www.pde.psu.edu/staffdevelopment/ninedesign.html)

Pluckrose, H. (1987) *What is Happening in Our Primary Schools?* Oxford: Basil Blackwell.

Powell, E., Terrell, I., Furey, S., & Scott-Evans, A. (2003) Teachers' Perceptions of the Impact of CPD: an institutional case study. *Journal of In-Service Education*, 29(3), 389-404.

- Punch, M. (1986) *The Politics and Ethics of Fieldwork*. Beverly Hills: Sage.
- Quicke, J. (1999) *A Curriculum for Life: Schools for a Democratic Learning Society*. Buckingham: Open University Press.
- Reason, P., & Bradbury, H. (2002) *Handbook of Action Research: participative inquiry and practice*. London: Sage.
- Resnick, L. B. (1987) Learning in School and Out. *Educational Researcher*, 16, 13-20.
- Reynolds, D. & Teddlie, C. with Hopkins, D. & Stringfield, S. (2000) Linking School Effectiveness and School Improvement. In C. Teddlie & D. Reynolds (Eds). *The International Handbook of School Effectiveness Research* (pp. 206-231). London: Falmer Press.
- Rhoton, J. & Stiles, K. E. (2002) Exploring the Professional Development Design Process: bringing an abstract framework into practice. *Science Educator*, Spring, 1-7. Available: [www.findarticles.com](http://www.findarticles.com)
- Richardson, V. (2003) The Dilemmas of Professional Development. *Phi Delta Kappan*, 84(5), 401-406.
- Ritchie, J., & Lewis, J. (2003) *Qualitative Research Practice: a guide for social science students and researchers*. London: Sage Publications.
- Rogers, R. (1984) *Crowther to Warnock, How fourteen reports Tried to Change Children's Lives.*: Heinemann, London.
- Rosenholtz, S. J. (1991) *Teachers' Workplace: The social organization of schools*. London: Teachers College Press.
- Sandholtz, J. H. (2000) Interdisciplinary Team teaching as a Form of Professional Development. *Teacher Education Quarterly*, 27(3), 39-54.



- Sandholtz, J. H., & Dadlez, S. H. (2000) Professional Development School Trade-Offs in Teacher Preparation and Renewal. *Teacher Education Quarterly* 27(1), 7-27.
- Sawyer, R. D. (2001) Teachers Who Grow As Collaborative Leaders: The Rocky Road of Support. *Education Policy Analysis Archives*, 9(38), 1-19.
- Schein, E. H. (2001) Clinical Inquiry Research. In P. Reason & H. Bradbury (Eds.), *Handbook of Action Research: Participative Inquiry and Practice*. Sage: London.
- Shuell, T. J. (1992) Designing instructional computing systems for meaningful learning. In M. Jones & P. H. Winne (Eds.), *Adaptive Learning Environments* (pp. 19-54). Berlin: Springer Verlag.
- Shulman, L. S. (1986) Those who Understand: knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14.
- Shulman, L. S. (1987) Knowledge and Teaching: foundations of the new reform. *Harvard Educational Review*, 57(1), 1-22.
- Silverman, D. (Ed.). (1997) *Qualitative Research: Theory Method and Practice*. London: Sage.
- Silverman, D. (2002) *Doing Qualitative Research: a practical handbook*. London: Sage Publications.
- Simons, P. R. J. (1993) Constructive Learning: The Role of the Learner. In T. M. Duffy & J. Lowyck & D. H. Jonassen (Eds.), *Designing Environments for Constructive Learning*. London: Springer-Verlag.
- Smith, A., & Reading, M. (2001, 13-15th September) *Reviewing performance management - impact and implications*. Paper presented at the British Educational Research Association Annual Conference, University of Leed.

Smith, T. M., & Ingersoll, R. M. (2004) What are the Effects of Induction and Mentoring on Beginning Teacher Turnover? *American Educational Research Journal*, 41(3), 681-714.

Smyth, J. (1991) *Teachers as Collaborative Learners: Challenging dominant forms of supervision*. Milton Keynes: Open University Press.

Smyth, J. (1999) Researching the Cultural Politics of Teachers' Learning. In J. Loughran (Ed.), *Researching Teaching*. London: Falmer Press.

Sparkes, A. C. (1992) *Research in Physical Education and Sport: Exploring Alternative Visions*. London: Falmer Press.

Sparkes, A. C. (1996) Physical Education Teachers and the Search for Self: two cases of structured denial. In N. Armstrong (Ed.), *New Directions in Physical Education. Change and Innovation* (pp. 157-178). London: Cassell.

Sparkes, A. C. (1998) Validity in Qualitative Inquiry and the Problem of Criteria: Implications for Sport Psychology. *The Sport Psychologist*, 12, 363-386.

Sparks, A. C., Nilges, L., Swan, P., & Dowling, F. (2003) Poetic Representations in Sport and Physical Education: Insider Perspectives. *Sport, Education and Society*, 8(2), 153-178.

Spencer, L., Ritchie, J., Lewis, J., & Dillon, L. (2003) *Quality in Qualitative Evaluation: A framework for assessing research evidence*. London: National Centre for Social Research.

Stake, R. E. (1995) *The Art of Case Study Research*. London: Sage.

Stake, R. E. (2000) Case Studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 435-454). London: Sage.



- Stake, R. E. (2000) The Case Study Method in Social Inquiry. In R. Gomm & M. Hammersley & P. Foster (Eds.), *Case Study Method*. London: Sage.
- Steffy, B. E., Wolfe, M. P., Pasch, S. H., & Enz, B. J. (2000) *Life Cycle of the Career Teacher*. California: Corwin.
- Stein, D. (1998) Situated Learning in Adult Education. *Eric Digest no. 5*, Available: <http://www.cete.org/acve/docgen.asp?tbl=digests&ID=48>.
- Stein, M. K., Smith, M. S., & Silver, E. A. (1999) The Development of Professional Developers: Learning to Assist Teachers in New settings in New Ways. *Harvard Educational Review*, 69(3), 237-269.
- Stenhouse (1980) The Study of Samples and the study of Cases. *British Educational Research Journal*, 6 (1), 1-7.
- Stenhouse, L. (1985) Case Study Methods. In J. P. Keeves (Ed.), *Educational research, methodology and measurement: an International Handbook* (pp. 49-53). Oxford: Pergamon.
- Stern, E., & Sommerlad, E. (1999) *Workplace learning, culture and performance*: Institute of Personnel and Development.
- Sternberg, R. J., & Horvath, J. A. (1999) *Tacit Knowledge in Professional Practice*. London: Lawrence Erlbaum Associates.
- Stokes, L. (2001) Lessons from an Inquiring School: Forms of Inquiry and Conditions for Teacher Learning. In A. Lieberman & L. Miller (Eds.), *Teachers Caught in the Action: professional development that matters*. London: Teachers College Press.
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., Thomas, S., Hawkey, K., & Smith, M. S. (2003) *Creating and Sustaining Effective Professional Learning Communities*. Paper presented at the Sixteenth International Congress for School Effectiveness and Improvement, Sydney, Australia, 5th-8th January, 2003.

Strauss, A. L., & Corbin, J. (1997) *Grounded Theory in Practice*. London: Sage Publications.

Strauss, A. L., & Corbin, J. (1990) *Basics of Qualitative Research: Grounded Theory procedures and techniques*. California: Sage.

Stringer, E. T. (1996) *Action Research: A Handbook for Practitioners*. London: Sage.

Sturman, A. (1994) Case Study Methods, *Educational Research, Methodology and Measurement: an International Handbook* (pp. 61-66). Oxford: Pergamon.

Talbert, J., & McLaughlin, M. (1994). Teacher Professionalism in Local School Contexts. *American Journal of Education*, 102(2), 123-53.

Talbert, J. E., & McLaughlin, M. W. (2002) Professional Communities and the Artisan Model of Teaching. *Teachers and Teaching: theory and practice*, 8(3/4), 325-343.

Tall, G., & Smith, C. (1997) The Impact on Teachers of Changing Patterns of Professional Development. *Teacher Development*, 1(1), 105-122.

TCM.com. (2002) *CoPs (Communities of Practice)*. Available online at: <http://www.tcm.com/trdev/cops.htm>

Thomas, N. (1990) *Primary Education from Plowden to the 1990s*: Falmer: London.

Toma, J. D. (2000) How Getting close to Your Subjects Makes Qualitative Data Better. *Theory into Practice*, 39(3), 177-184.

Toole, J. C., & Louis, K. S. (2002) The Role of Professional Learning Communities in International Education. In K. Leithwood and P. Hallinger (Eds.) (pp. 245-281), *Second International Handbook of Educational Leadership and Administration*. Dordrecht: Kluwer.



- Torbert, W. R. (2001) *The Practice of Action Inquiry*. In P. Reason & H. Bradbury (Eds.), *Handbook of Action Research: participative inquiry and practice*. London: Sage.
- Van de Water, G. B. (1989) *The Governance of School-College Collaboratives: Lessons Learned from the College-Board's Educational Equality Project Models Program for School-College Collaboration*. The College Board: New York
- Van Maanen, J. (1988) *Tales of the Field: on writing ethnography*. Chicago: University of Chicago Press.
- Vygotsky, L. S. (1978) *Mind in Society: The development of higher psychological processes*. (M. Cole, Trans.). London: Harvard University Press.
- Warburton, P. (2001) Initial Teacher Training - the preparation of primary teachers in Physical Education. *British Journal of Physical Education*, 32(1), 6-8.
- Ward, P., & O'Sullivan, M. (1998) Similarities and Differences in Pedagogy and Content: 5 Years Later. *Journal of Teaching in Physical Education*, 17, 195-213.
- Wellington, J. (2000) *Educational Research: Contemporary Issues and Practical Approaches*. London: Continuum.
- Wenger, E. (1998) *Communities of Practice: learning, meaning and identity*. Cambridge: Cambridge University Press.
- Wenger, E. (2004) *Communities of Practice: a brief introduction*. Available online at: <http://www.ewenger.com/theory>
- Wenger, E., McDermott, R., & Snyder, W. (2001) *Cultivating Communities of Practice: a guide to managing knowledge*. Boston: Harvard Business School Press.
- West-Burnham, J., & O'Sullivan, F. (1998) *Leadership and Professional Development in Schools*. London: Prentice Hall.

WestEd. (2000) *Teachers who Learn, Kids who Achieve*. San Francisco: WestEd.

Wetherall, M., Taylor, S., & Yates, S. J. (Eds.). (2001) *Discourse Theory and Practice: A reader*. London: Sage.

Whelen, K. K., Huber, J., Rose, C., Davies, A., & Clandinin, D. J. (2001) Telling and Retelling Our Stories on the Professional Knowledge Landscape. *Teachers and Teaching: theory and practice*, 7(2), 143-156.

Williams, A. (2003) Informal Learning in the Workplace: a case study of new teachers. *Educational Studies*, 29(2/3), 207-219.

Williams, A., Prestage, S., & Bedward, J. (2001) Individualism to Collaboration: the significance of teacher culture to the induction of newly qualified teachers. *Journal of Education for Teaching*, 27(3), 253-267.

Williams, M. (2002). *Generalization in interpretive research*. In T. May (Ed). *Qualitative Research in Action* (125-143). London: Sage.

Williams, M. (2002) Generalisation in Interpretive Research. In T. May (Ed.), *Qualitative Research in Action*. (pp. 125-143). London: Sage.

Woodrow, D. (1998) *Semi-detached and Desirable - teachers Teaching Teachers*. Paper presented at the European Conference on Educational Research, Ljubljana, Slovenia.

Wright, L. (2002) Rescuing primary Physical Education and saving those values that matter most. *The British Journal of Teaching Physical Education*, Spring, 37-38.

Yin, R. K. (1984) *Case Study Research: Design and methods*. London: Sage Publications.

Yin, R. K. (1993) *Applications of Case Study Research*. London: Sage.



Zeichner, K. (2001) Educational Action Research. In P. Reason & H. Bradbury (Eds.), *Handbook of Action Research: participative Inquiry and Practice*. London: Sage.

## List of Appendices

- A ESRC Checklist: Framework for Assessing Qualitative Evaluations
- B Interview Schedule
- C PE and CPD Questionnaire
- D CPL Questionnaire
- E Observation Template
- F Lesson observations: overcoming problems
- G Medium Term Plans / Lesson Plans
- H CPD session handouts / task cards
- I Comparison of Schools (SATs results etc.)
- J Lesson Observations (School A)
- K Lesson Observations (School B)
- L The Teachers' PE and PE-CPD Stories (School A)
- M The Teachers' PE and PE-CPD Stories (School B)
- N The Teachers' Attendance at, Contribution to and Assessment of the CPD (School A)
- O The Teachers' Attendance at, Contribution to and Assessment of the CPD (School B)



P Diary of Events (School A)

Q Diary of Events (School B)

R Teachers' Introduction to CPL



## Appendix A ESRC quality framework

## Framework For Assessing Qualitative Evaluations

Study being appraised \_\_\_\_\_

	a) Appraisal questions	b) Quality indicators (possible features for consideration)	c) Notes on study being appraised
1. FINDINGS	How credible are the findings?	<p>Findings/conclusions are supported by data/study evidence (<i>i.e. the reader can see how the researcher arrived at his/her conclusions; the 'building blocks' of analysis and interpretation are evident</i>)</p> <p>Findings/conclusions 'make sense'/have a coherent logic</p> <p>Findings/conclusions are resonant with other knowledge and experience (<i>this might include peer or member review</i>)</p> <p>Use of corroborating evidence to support or refine findings (<i>i.e. other data sources have been used to examine phenomena; other research evidence has been evaluated: see also Q14</i>)</p>	<p>Evidence from data provided</p> <p>Sources of quotes/evidence provided</p> <p>Teachers asked to confirm narratives</p> <p>Peers consulted</p> <p>Links to current literature provided</p>
2. FINDINGS	How has knowledge/understanding been extended by the research?	<p>Literature review (where appropriate) summarising knowledge to date/key issues raised by previous research</p> <p>Aims and design of study set in the context of existing knowledge/understanding; identifies new areas for investigation (<i>for example, in relation to policy/practice/substantive theory</i>)</p> <p>Credible/clear discussion of how findings have contributed to knowledge and understanding (<i>e.g. of the policy, programme or theory being reviewed</i>); might be applied to new policy developments, practice or theory</p> <p>Findings presented or conceptualised in way that offers new insights/alternative ways of thinking</p> <p>Discussion of limitations of evidence and what remains unknown/unclear or what further information/research is needed</p>	<p>Previous research used as a starting block</p> <p>Discussion makes sense of findings and puts forward recommendations</p> <p>Limitations of research identified</p>



	a) Appraisal questions	b) Quality indicators (possible features for consideration)	c) Notes on study being appraised
3. FINDINGS	How well does the evaluation address its original aims and purpose?	<p>Clear statement of study aims and objectives; reasons for any changes in objectives</p> <p>Findings clearly linked to the purposes of the study – and to the initiative or policy being studied</p> <p>Summary or conclusions directed towards aims of study</p> <p>Discussion of limitations of study in meeting aims (e.g. are there limitations because of restricted access to study settings or participants, gaps in the sample coverage, missed or unresolved areas of questioning; incomplete analysis; time constraints?)</p>	<p>Aims and objectives stated and research questions answered</p> <p>Findings discussed in relation to research questions</p> <p>Limitations identified where necessary</p>
4. FINDINGS	Scope for drawing wider inference – how well is this explained?	<p>Discussion of what can be generalised to wider population from which sample is drawn/case selection has been made</p> <p>Detailed description of the contexts in which the study was conducted to allow applicability to other settings/contextual generalities to be assessed</p> <p>Discussion of how hypotheses/propositions/findings may relate to wider theory; consideration of rival explanations</p> <p>Evidence supplied to support claims for wider inference (<i>either from study or from corroborating sources</i>)</p> <p>Discussion of limitations on drawing wider inference (<i>e.g. re-examination of sample and any missing constituencies: analysis of restrictions of study settings for drawing wider inference</i>)</p>	<p>Issues of case study generalisation discussed</p> <p>Contexts described (schools and teachers)</p> <p>Wider theory used to explain findings</p> <p>Quotes (number of mentions) provided</p> <p>Limitations of case studies identified.</p>
5. FINDINGS	How clear is the basis of evaluative appraisal?	<p>Discussion of how assessments of effectiveness/evaluative judgements have been reached (<i>i.e. whose judgements are they and on what basis have they been reached?</i>)</p> <p>Description of any formalised appraisal criteria used, when generated and how and by whom they have been applied</p> <p>Discussion of the nature and source of any divergence in evaluative appraisals</p> <p>Discussion of any unintended consequences of intervention, their impact and why they arose</p> <p>a) Appraisal questions b) Quality indicators (possible features for consideration) c) Notes on study being appraised</p>	<p>Reflexivity, own experiences &amp; interpretations identified</p> <p>Impact of CPD packages identified</p> <p>Impact of researcher acknowledged</p>



	a) Appraisal questions	b) Quality indicators (possible features for consideration)	c) Notes on study being appraised?
6. DESIGN	How defensible is the research design?	<p>Discussion of how overall research strategy was designed to meet aims of study</p> <p>Discussion of rationale for study design</p> <p>Convincing argument for different features of research design (e.g. reasons given for different components or stages of research; purpose of particular methods or data sources, multiple methods, time frames etc.)</p> <p>Use of different features of design/data sources evident in findings presented</p> <p>Discussion of limitations of research design and their implications for the study evidence</p>	<p>Research strategy chosen to answer research questions</p> <p>Methods chosen to be most appropriate to answer questions and to be practical</p> <p>e.g. of interviews favoured, but not enough time so changed to questionnaires.</p>
7. SAMPLE	How well defended is the sample design/target selection of cases/documents?	<p>Description of study locations/areas and how and why chosen</p> <p>Description of population of interest and how sample selection relates to it (e.g. typical, extreme case, diverse constituencies etc.)</p> <p>Rationale for basis of selection of target sample/settings/documents (e.g. characteristics/features of target sample/settings/documents, basis for inclusions and exclusions, discussion of sample size/number of cases/setting selected etc.)</p> <p>Discussion of how sample/selections allowed required comparisons to be made</p>	<p>Explanation of why schools chosen</p> <p>Contrasting catchment areas chosen</p> <p>Comparison of cases not a priority. Similarities of experiences described where possible</p>
8. SAMPLE	Sample composition/case inclusion – how well is the eventual coverage described?	<p>Detailed profile of achieved sample/case coverage</p> <p>Maximising inclusion (e.g. language matching or translation; specialised recruitment; organised transport for group attendance)</p> <p>Discussion of any missing coverage in achieved samples/cases and implications for study evidence (e.g. through comparison of target and achieved samples, comparison with population etc.)</p> <p>Documentation of reasons for non-participation among sample approached/non-inclusion of selected cases/documents</p> <p>Discussion of access and methods of approach and how these might have affected participation/coverage</p>	<p>Argument for case study research and not using representative samples given in methodology</p> <p>Problems involving all teachers in all aspects of research identified and acknowledged.</p> <p>Attempts made to include all teachers.</p>



	a) Appraisal questions	b) Quality indicators (possible features for consideration)	c) Notes on study being appraised
<b>9. DATA COLLECTION</b>	How well was the data collection carried out?	<p>Discussion of:</p> <ul style="list-style-type: none"> <li>- who conducted data collection</li> <li>- procedures/documents used for collection/recording</li> <li>- checks on origin/status/authorship of documents</li> </ul> <p>Audio or video recording of interviews/discussions/conversations (if not recorded, were justifiable reasons given?)</p> <p>Description of conventions for taking fieldnotes (e.g. to identify what form of observations were required/to distinguish description from researcher commentary/analysis)</p> <p>Discussion of how fieldwork methods or settings may have influenced data collected</p> <p>Demonstration, through portrayal and use of data, that depth, detail and richness were achieved in collection</p>	<p>Researcher conducted all data collection</p> <p>Collection of data discussed</p> <p>Interviews and conversations taped</p> <p>Video of lessons not possible so observation used</p> <p>Methods sometimes chosen for practical reasons – these are identified.</p> <p>Wide range of methods used to encourage rich data</p>
<b>10. ANALYSIS</b>	How well has the approach to and formulation of the analysis been conveyed?	<p>Description of form of original data (e.g. use of verbatim transcripts, observation or interview notes, documents, etc.)</p> <p>Clear rationale for choice of data management method/tool/package</p> <p>Evidence of how descriptive analytic categories, classes, labels etc. have been generated and used (i.e. either through explicit discussion or portrayal in the commentary)</p> <p>Discussion, with examples, of how any constructed analytic concepts/typologies etc. have been devised and applied</p>	<p>Transcripts of meetings/interviews, observation notes etc stated.</p> <p>Data management tools explained</p> <p>Concepts in data analysis section and subheadings in findings used to structure concepts</p>
<b>11. ANALYSIS</b>	Contexts of data sources – how well are they retained and portrayed?	<p>Description of background or historical developments and social/organisational characteristics of study sites or settings</p> <p>Participants' perspectives/observations placed in personal context (e.g. use of case studies/vignettes/individual profiles, textual extracts annotated with details of contributors)</p> <p>Explanation of origins/history of written documents</p> <p>Use of data management methods that preserve context (i.e. facilitate within case description and analysis)</p>	<p>OFSTED, observations &amp; own experiences used to describe cases</p> <p>Questionnaires elicit teachers' backgrounds</p> <p>Description chapters 'set the scene' - data presented as original quotes etc. Then discussed in later chapters.</p>



	a) Appraisal questions	b) Quality indicators (possible features for consideration)	c) Notes on study being appraised
12. ANALYSIS	How well has diversity of perspective and content been explored?	<p>Discussion of contribution of sample design/case selection in generating diversity</p> <p>Description and illumination of diversity/multiple perspectives/alternative positions in the evidence displayed</p> <p>Evidence of attention to negative cases, outliers or exceptions</p> <p>Typologies/models of variation derived and discussed</p> <p>Examination of origins/influences on opposing or differing positions</p> <p>Identification of patterns of association/linkages with divergent positions/groups</p>	<p>Common themes identified, but all instances discussed</p> <p>Reasons for differences located in the contexts of the schools and backgrounds of the teachers.</p>
13. ANALYSIS		<p>How well has detail, depth and complexity (i.e. richness) of the data been conveyed?</p> <p>Use and exploration of contributors' terms, concepts and meanings</p> <p>Unpacking and portrayal of nuance/subtlety/intricacy within data</p> <p>Discussion of explicit and implicit explanations</p> <p>Detection of underlying factors/influences</p> <p>Identification and discussion of patterns of association/conceptual linkages within data</p> <p>Presentation of illuminating textual extracts/observations</p>	<p>Data presented and researcher's interpretations given.</p> <p>Richness of data allows reader to reach own conclusions</p> <p>Some underlying influences inferred e.g. from data presented</p>
14. REPORTING	How clear are the links between data, interpretation and conclusions – i.e. how well can the route to any conclusions be seen?	<p>Clear conceptual links between analytic commentary and presentations of original data (<i>i.e. commentary and cited data relate; there is an analytic context to cited data, not simply repeated description</i>)</p> <p>Discussion of how/why particular interpretation/significance is assigned to specific aspects of data – with illustrative extracts of original data</p> <p>Discussion of how explanations/theories/conclusions were derived – and how they relate to interpretations and content of original data (<i>i.e. how warranted</i>); whether alternative explanations explored</p> <p>Display of negative cases and how they lie outside main proposition/theory/hypothesis etc.; or how proposition etc. revised to include them</p>	<p>Original data included into categories of themes and then analysed. Clear links between data and conclusions provided.</p> <p>A number of possible conclusions explored before final recommendations</p>



	a) Appraisal questions	b) Quality indicators (possible features for consideration)	C) Notes on study being appraised
<b>15. REPORTING</b>	How clear and coherent is the reporting?	<p>Demonstrates link to aims of study/research questions</p> <p>Provides a narrative/story or clearly constructed thematic account</p> <p>Has structure and signposting that usefully guide reader through the commentary</p> <p>Provides accessible information for intended target audience(s)</p> <p>Key messages highlighted or summarised</p>	<p>Aims stated and referred to throughout analysis</p> <p>Chapters/sections presented in logical order and links made between them</p> <p>Key messages summarised</p>
<b>16. REFLEXIVITY &amp; NEUTRALITY</b>	How clear are the assumptions/theoretical perspectives/values that have shaped the form and output of the evaluation?	<p>Discussion/evidence of the main assumptions/hypotheses/theoretical ideas on which the evaluation was based and how these affected the form, coverage or output of the evaluation (the assumption here is that no research is undertaken without some underlying assumptions or theoretical ideas)</p> <p>Discussion/evidence of the ideological perspectives/values/philosophies of research team and their impact on the methodological or substantive content of the evaluation (again, may not be explicitly stated)</p> <p>Evidence of openness to new/alternative ways of viewing subject/theories/assumptions (e.g. discussion of learning/concepts/constructions that have emerged from the data; refinement restatement of hypotheses/theories in light of emergent findings; evidence that alternative claims have been examined)</p> <p>Discussion of how error or bias may have arisen in design/data collection/analysis and how addressed, if at all</p> <p>Reflections on the impact of the researcher on the research process</p>	<p>Researcher's background and experiences stated and influences on research explained</p> <p>Assumptions underpinning research stated and explained in relation to methods</p> <p>Possible errors in design acknowledged and addressed where possible</p> <p>Reflexivity section included in methodology.</p>



	a) Appraisal questions	b) Quality indicators (possible features for consideration)	c) Notes on study being appraised
<b>17. ETHICS</b>	What evidence is there of attention to ethical issues?	<p>Evidence of thoughtfulness/sensitivity about research contexts and participants</p> <p>Documentation of how research was presented in study settings/to participants (including, where relevant, any possible consequences of taking part)</p> <p>Documentation of consent procedures and information provided to participants</p> <p>Discussion of confidentiality of data and procedures for protecting</p> <p>Discussion of how anonymity of participants/sources was protected</p> <p>Discussion of any measures to offer information/advice/services etc. at end of study (i.e. where participation exposed the need for these)</p> <p>Discussion of potential harm or difficulty through participation, and how avoided</p>	<p>Teachers' participation voluntary</p> <p>Consent procedures documented.</p> <p>Confidentiality and anonymity assured</p> <p>Reports sent to participants at end of research</p>
<b>18. AUDITABILITY</b>	How adequately has the research process been documented?	<p>Discussion of strengths and weaknesses of data sources and methods</p> <p>Documentation of changes made to design and reasons; implications for study coverage</p> <p>Documentation and reasons for changes in sample coverage/data collection/analytic approach; implications</p> <p>Reproduction of main study documents (e.g. letters of approach, topic guides, observation templates, data management frameworks etc.)</p>	<p>Strengths and weaknesses discussed</p> <p>Changes to design documented and explained</p> <p>Included in appendices</p>



## **Appendix B: Interview Schedule**

### **Personal Information**

School: St. Bart's

Your Name:

How many years teaching experience do you have?

Which year group do you currently teach?

Which year groups have you taught?

What is your specialist subject?

Which curriculum areas have you led?

Which curriculum area/s do you currently lead?

Have you had any jobs outside of teaching?

### **PE and CPD questions**

Can you think of any PE lessons that you have seen or taken that you thought were particularly good?

What was it about this/these lesson/s that you felt made it/them good?

How do you feel about teaching PE? Is it a positive or negative experience for you? Do you look forward to taking PE lessons?

What is it about teaching PE that you particularly enjoy?

What do you find difficult when teaching PE?

Why do you think you find teaching PE difficult/easy/enjoyable?

Would you prefer it if you didn't have to teach PE? What could be the alternative?

What do you see as being the main purpose of PE?

Do you consider how and what children might learn in their PE lessons?

Is learning in PE the same as other subjects or is it different in some way...

What would a really high quality PE programme look like? Can you imagine it?

When was the last time you learnt something about teaching PE?

Where do your ideas of how to teach PE come from?

How would you describe the training in PE teaching that you received during your initial teacher training?

Have you been on any courses to help you teach PE?

Are there any areas of PE you do not feel confident to teach. What would be the best way for you to overcome this problem?

Other than courses, can you identify any professional development activities that have helped you to teach PE better?

What do the words: inset, professional development and CPD mean to you?

Is there a difference in your understanding of these terms?

Were you part of the appraisal scheme?

How has Performance management contributed to your own CPD?

What provisions were in place for your first year of teaching?

What CPD have you received since your first year of teaching?

What form has this CPD taken?

What courses have you attended?

What are your criticisms of the CPD you have received?

Have you been able to put your CPD into practice?

How could CPD providers help you to put what you learn into practice?

What are the biggest constraints when planning your own CPD?

What would you like in the way of CPD in the future?

Looking back on all your experiences as a learner, (school, out of school, college, individual), what kind of learner are you – what do you need to learn well?



## Appendix C: PE and PE-CPD Questionnaire

### PE and Professional Development Questionnaire

I would really appreciate it if you would spend some time answering the following questions. As part of my research into PE professional development, I am researching what type and how much professional development teachers have received since qualifying, both generally and in relation to PE.

The following questions seek to discover your views about teaching PE, the training in PE you have received and the professional development you have received throughout your teaching careers.

I would appreciate it if you could answer each question in as much detail as possible. I would prefer not to have a text book answer so feel free to express your views!

You do not have to answer all the questions.

Your answers may be quoted in my work but your identity will remain anonymous. If you are happy for me to use your answers in this way, please tick the box.

Many thanks for your time and for helping me with my research.

Rebecca Duncombe

- 1) Your Name:
- 2) How many years teaching experience do you have?
- 3) Which year group do you currently teach?
- 4) Which year groups have you taught?
- 5) What is your specialist subject?
- 6) Which curriculum areas have you led?
- 7) Which curriculum area/s do you currently lead?
- 8) Have you had any jobs outside of teaching?
- 9) How have foundation subjects such as PE suffered from the introduction of initiatives like the literacy and numeracy strategies?
- 10) Where do your ideas for teaching PE come from?



11) What can you remember about the PE training you received during your initial teacher training? Try to recall any key details about the content and structure of the training, and also your evaluation of its strengths and weaknesses.

-----  
 -----  
 -----  
 -----  
 -----  
 -----  
 -----  
 -----  
 -----  
 -----  
 -----  
 -----

12) Have you undertaken any further training in PE since gaining qualified teacher status? Please list any training that you can recall, and also comment on its quality and relevance from your point of view.

Activity	Year	Duration	Comment

13) Other than organised courses or inset days, can you identify any other opportunities you have had to learn about teaching PE?

-----  
-----  
-----  
-----

14) Have you had any experience of PE advisors coming into your school? If so, was this useful/helpful and why?

-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----

15) Thinking more generally about professional development across the curriculum and throughout your career how do you, personally, judge the effectiveness (or otherwise) of professional development activities?

-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----



16) From your point of view, what are the main issues teachers face when trying to access CPD?

-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----

17) Please use this space to add any further comments that you would wish to make about professional development generally or about professional development in PE specifically.

-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----  
-----

## Appendix D: CPL Questionnaire

### Section 1: General Professional Development

Looking back over your career, and thinking about your professional development experiences (generally, rather than PE specific) what would you *personally* identify as the key features of effective/successful professional development?

### Section 2: The Athletics Professional Development

- Now thinking specifically about the athletics professional development you have undertaken this term, please decide how effective/successful it was for you. Please circle the appropriate number on the scale of 1-10 where 1 is *not effective* and 10 is *very effective*.

Not effective-----Very effective

1   2   3   4   5   6   7   8   9   10

- Thinking about the athletics professional development, would you say that any of the outcomes below apply to you? (please tick )

- I can now teach athletics with more confidence
- It has helped me to consider and plan for children's learning
- I feel I have improved my knowledge of running/throwing/jumping techniques
- It has focused my attention on teaching specific skills
- I am now able to plan athletics lessons more effectively
- I have become more aware of the resources available
- have learnt some effective behaviour management techniques within PE?
- I feel more confident about teaching PE generally



3. Was there anything about the athletics professional development that you thought was particularly effective or helpful?

4. Was there anything about the athletics professional development that you felt was ineffective or unhelpful?

5. Thinking about your own professional learning, do any of the sessions stand out as being particularly helpful? If yes, please tick the session from the list below then proceed to question 6. If not, please proceed to question 7.

- Going through the lesson plans (Spring term)
- Running and pacing
- Throwing skills
- Warm ups
- Athletic challenges

6. What was it about this session/these sessions that helped you to learn?

--

7. Having undertaken this athletics CPD, are there any aspects of your practice that you have changed? Please provide brief details.

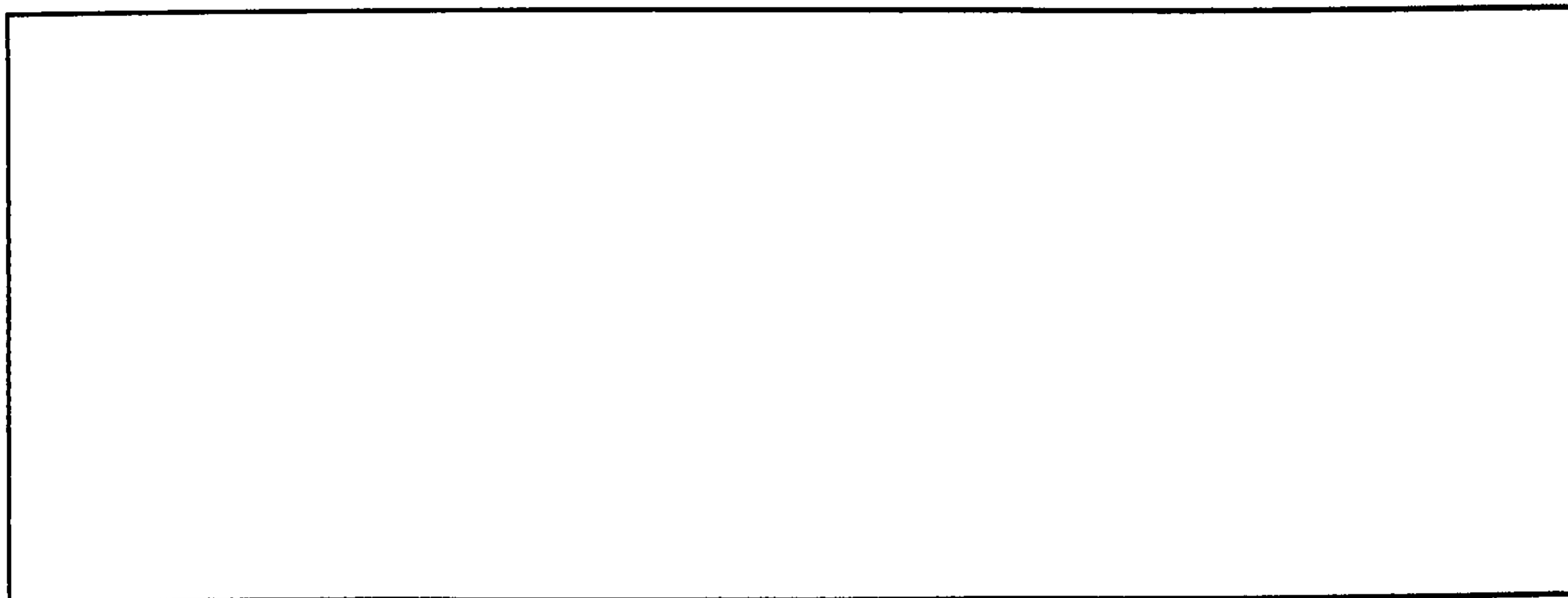
What I did before	What I do now

8. Do you have any comments about the lesson plans that were provided for the athletics professional development?

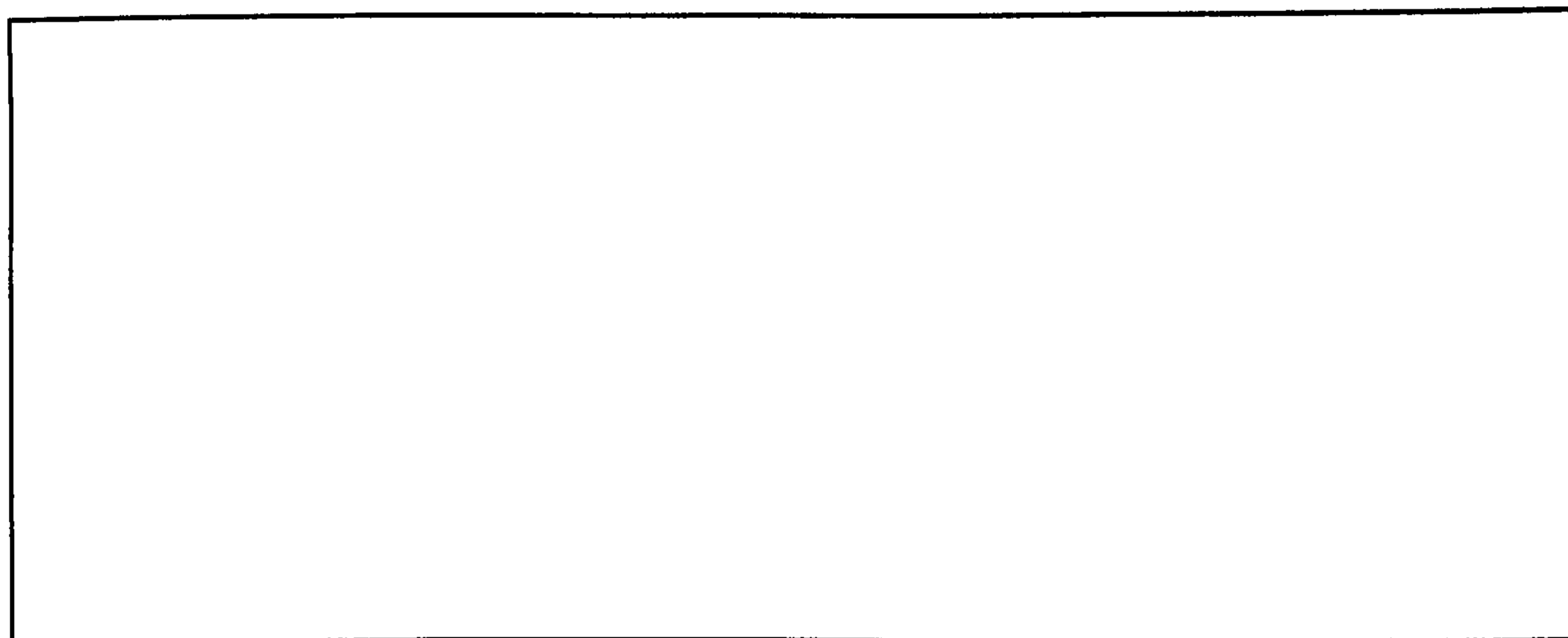
--



9. Do you have any comments about the way in which the whole athletics professional development package was organised (i.e. the provision of lesson plans, additional handouts, resources and school-based support)?



10. How could I improve this type of professional development in the future?



**CPL Section**

1. I planned for the athletics sessions to involve collaborative professional learning. By that, I mean that I hoped you would learn from each other as well as from me or outside 'experts'. Can you identify any opportunities within the sessions when you learnt from each other?

2. Were there any occasions outside the specific sessions when you learnt something about athletics from another colleague? Please explain briefly.

3. What factors do you feel may have prevented you from learning with and from each other?



4. In your opinion, is CPL a valuable form of professional development, both in PE and more generally?

5. In your opinion, what could be done to encourage collaborative professional learning between teachers in schools?

## **Appendix E: Observation Template**

**School:**

**Year:**

**Date:**

**Time:**

**Topic/activity:**

**Warm Up (approx)**

**Main Activity (approx.)**

**Cool Down**

**Equipment Management**

**Class Management**



**Learning Outcomes**

**Teachers' Learning**

**Other Comments**

## **Appendix F: overcoming common problems**

### **The lesson plans**

Overcoming common problems:

#### **Class management**

- Class to be divided into 5 teams, each team responsible for collecting and setting up the same equipment each week.
- Some teaching to be done in the classroom – safety, format of lesson, organisation etc. The idea behind this is that the children should hopefully listen better whilst still inside.

#### **Resources**

- Each team is responsible for setting up one aspect of athletics. Either jumping, throwing, running or hurdles. The same children set up the same equipment in the same place each week.

#### **Teaching new skills and consolidating existing skills**

- Each lesson plan has a specific teaching point, which is highlighted in bold type.

#### **Children's listening**

- This problem is tackled by explaining important information in the classroom;
- Perhaps introducing a signal that indicates the whole class should stop and gather round (already done by some);
- Maybe an assembly to introduce the format of the lessons and the importance of being responsible for the equipment.

#### **Assessment**

- The children will be responsible for measuring and recording their own performance at the start and the end of the term;



## **National Curriculum**

- Each lesson is linked to the national curriculum.

## **Cross-curricula links**

Numeracy – measuring and timing;

Numeracy and ICT – compiling graphs to show each child’s improved performance or comparing children in each class or at different ages.

PSHE – health and fitness covered in lesson 6

Science – aerodynamics (throwing)

## **Team work**

Children will have to work together in their teams for the whole term. They will need to co-operate to set up the equipment and work together to measure and record their performance. They will also need to share and take turns.

Appendix G: Medium Term Plans

N.C.		Teaching Focus / Learning Objective	Brief Outline of Activities
1a, 1b		To explore and develop running, jumping and throwing skills.	<p>Children will establish a routine of collecting and setting up their own equipment so that five activity stations are created each week.</p> <p>The children will learn through demonstrations, observations and direct teaching. They will be learn how to develop their existing running, jumping and throwing skills with a focus on developing one of these skills each week.</p> <p>At the end of most lessons, they will be allowed time to rotate around the five activities.</p> <p>They will measure their performance at the beginning and towards the end of the scheme of work and describe the changes.</p> <p>The children will spend one lesson exploring health issues and will be asked to describe how their bodies change as a result of exercise.</p> <p>Children will be given opportunities to explore the equipment and will be asked to design their own athletic challenges for the rest of the class to perform.</p> <p><b>Progression from KSI</b></p> <ul style="list-style-type: none"> <li>▪ Children will be more responsible for their own learning and will be expected to work more independently.</li> <li>▪ Basic skills will be developed and children will start to use run ups in their jumps and throws.                             <ul style="list-style-type: none"> <li>Understanding will be extended from KSI in health issues.</li> </ul> </li> <li>▪ Children will be expected to measure and record more accurately.</li> </ul>
3a, 3b,		To start to use run ups for jumping and throwing.	
10a, 10b, 10c		To observe others, identify and demonstrate good practice.	
4a, 4b, 4d		To accurately measure and record performance.	
		To know why it is important to warm up and suggest some warm up exercises appropriate to different activities.	
		To understand how fitness, safety and hygiene can contribute to overall health.	
		To design and take part in mini athletic activities	
Assessment Process		ICT and cross-curricula links	Resources
Method	Focus		
Teacher observation	Do children apply what they are taught to their practice?	children could plot their measurements onto graphs.	Foam javelins, foam discus, foam shots, measuring tapes, stop watches, hurdle cones, hurdle poles, plastic markers, Clipboards, assessment sheets.
Children's own measurements of their performance	Does their performance improve?	<ul style="list-style-type: none"> <li>▪ health issues covered in lesson 6.</li> <li>▪ Cooperation, sharing and teamwork.</li> </ul> Numeracy – measuring and recording, graphs and tables.	All contained in five boxes: running, hurdles, jumping, throwing, cross-country.



Subject: PE      Topic: Athletics      Term: Summer      Year Group: 3 / 4      Teacher:

Links to N/C	Learning Objectives	Activities / Class organisation / Differentiation	Resources
	To familiarise children with the equipment and routines	<p>In the classroom divide children into their teams and explain they will be working in these teams for the whole term.</p> <p>Discuss safety, especially for throws e.g. children to all throw before any measuring or collecting, direction for jumping hurdles.</p> <p>Take children to hall and introduce them to the equipment in colour-coded boxes and explain that each team is responsible for taking out and bringing back their colour box.</p> <p>Take children to the field and help them set their equipment up in the right place.</p> <p>Warm up – beans game</p>	<p>Jumping box</p> <p>Running box</p> <p>Throwing box</p> <p>Hurdles box</p> <p>Cross-country box</p>
3a	To recognise and identify effective performance	<p>As a class rotate around the different activities and ask individual children to demonstrate the activities. Get the children to identify good practice and make suggestions for improving performance. Introduce the children to the measuring equipment for each activity.</p>	
3b	To suggest ways to improve performance	<p>Allow the children a few minutes at each activity in their groups to familiarise themselves with the equipment etc.</p>	

Links to N/C	Learning Objectives	Activities / Class organisation / Differentiation	Resources
1a	To consolidate existing skills and gain new ones.	In the classroom, recap safety, groups and equipment.	Throwing box
1b	To perform actions and skills with more consistent control and quality.	Discuss suitable measuring equipment for running, jumping and throwing and demonstrate the use of measuring tapes and stop clocks. Groups to take equipment out and set up. Warm up -- late for school and basic stretches	Jumping box Running box
3a	To identify what makes a performance effective and suggest improvements based on this information.	As a whole class, rotate around the activities discussing how performance can be improved at each activity. Use the children to demonstrate these skills and allow the children some time to practise where possible	Hurdles box
3b		Teaching points: <ul style="list-style-type: none"> <li>▪ Introduce over, under and rotating throw</li> <li>▪ Discuss how speed can be achieved through lengthening stride and using arms.</li> <li>▪ Demonstrate how using your arms to propel yourself and having a run up can increase the distance of a jump.</li> </ul> Send children off in their groups to measure and record their performance at each activity. Plenary -- Ask children to identify an efficient run, jump and throw.	Cross-country box



**Lesson 3**

**Subject: PE**      **Topic: Athletics**      **Term: Summer**      **Year Group: 3 / 4**      **Teacher:**

Links to N/C	Learning Objectives	Activities / Class organisation / Differentiation	Resources
1a	To consolidate existing skills and gain new ones.	In the classroom - recap safety, groups, equipment.	Throwing box
1b	To perform actions and skills with more consistent control and quality.	Children to collect and set up equipment.  Warm up – recap effective running, ask children to run around the field and to demonstrate a jog, a run and a sprint.	Running box
3a	To identify what makes an effective performance and suggest improvements based on this information.	<ul style="list-style-type: none"> <li>▪ Ask children to run with their arms by their sides and discuss this as being an ineffective way of running.</li> <li>▪ Ask the children to try lengthening and shortening their stride and ask them to decide which is the most effective.</li> <li>▪ Ask the children to lean back and forwards as they run and decide which is the optimum position.</li> </ul>	Jumping box
3b		Put the children in pairs and ask them to assess each others running performance and to suggest ways to improve it based on what you have just discussed.	Hurdles box
10b	To use running, jumping and throwing skills both singly and in combination	Allow the children the remaining time to rotate around the activities.  Plenary – Ask children to demonstrate an effective and an ineffective run.	Cross-country box

# Lesson 4

St. Bartholomew's C. OfE.  
Primary School, Quorn

**Subject: PE**      **Topic: Athletics**      **Term: Summer**      **Year Group: 3 / 4**      **Teacher:**

Links to N/C	Learning Objectives	Activities / Class organisation / Differentiation	Resources
1a	To consolidate existing skills and gain new ones.	Address any issues that may have arisen in previous weeks.	Jumping box
1b	To perform actions and skills with more consistent control and quality.	Children to collect and set up equipment	Throwing box
3a	To identify what makes a performance effective and suggest improvements based on this information.	Warm up – Up, Down, Stop, Go. And basic leg stretches.	Running box
3b		Allow the children some time to investigate different jumps on their own and then with a partner.	Hurdles box
10b	To use running, jumping and throwing skills both singly and in combination	As a whole class demonstrate and allow the children to practise the following jumps. 2 feet to 2 feet 2 feet to one foot one foot to two feet one foot to one foot Identify when you may use these jumps – standing long jump, running long jump, high jump, triple jump. Ask the children to show how they can jump further and how they could jump higher.  Allow the children to rotate around the activities in their groups.	Cross-country box
		Plenary – Ask children to suggest ways they can jump further.	



## Lesson 5

**Subject: PE**      **Topic: Athletics**      **Term: Summer**      **Year Group:3 / 4**      **Teacher**

Links to N/C	Learning Objectives	Activities / Class organisation / Differentiation	Resources
1a	To consolidate existing skills and gain new ones.	Children to collect and set up equipment	Throwing box
1b	To perform actions and skills with more consistent control and quality.	Warm up – Wizards and rocks and some basic stretches, concentrate on arms and upper body.	Jumping box
3a	To identify what makes a performance effective and suggest improvements based on this information.	Ask children to identify as many different types of throws as they can. Ask children to demonstrate an underarm and an over arm throw. Ask the children how they would throw a ball, a quoit and a javelin and explain why. Allow children some time to experiment with beanbags, quoits and balls to find the best technique. (All to throw and then all to collect) Discuss children's findings and explain.	Running box
3b		Children to rotate around activities in their groups	Hurdles box
10b	To use running, jumping and throwing skills both singly and in combination.	Plenary – Ask children to identify 2 different throws. Ask them to demonstrate how to throw a discus.	Cross-country box  Box of quoits, beanbags and balls.

## Lesson 6

**Subject: PE**      **Topic: Athletics**      **Term: Summer**      **Year Group: 3 / 4**      **Teacher:**

Links to N/C	Learning Objectives	Activities / Class organisation / Differentiation	Resources
4d	To understand why wearing appropriate clothing and being hygienic is good for their health and safety	In the classroom ask the children what they are asked to do each lesson for their own health and safety. E.g., change clothes, wear appropriate clothing, take jewellery off, tie hair back. Children to collect and set up equipment.	Throwing box
4a	To understand how exercise affects the body in the short term	Warm up – Ask the children to think about how they feel before exercise. Then play time bomb. Ask the children if they feel out of breath, if they feel hot, if they can feel their heart beating faster. How has the warm up affected their bodies?	Jumping box
4b	To warm up and prepare appropriately for different activities  To understand why physical activity is good for their health and well-being	Ask the children to demonstrate how they might warm up and stretch for throwing and how this differs to stretching for jumping and running. Suggest some safe stretches and explain why they might need to warm up.  Ask the children why physical activity is important – fitness, obesity, healthy hearts. What else do they need to do to be healthy? – diet, hygiene, safety etc. Children to rotate round activities in their groups	Running box  Hurdles box  Cross-country box
		Plenary – Ask children to identify 4 ways they can be fit and healthy	



## Lesson 7

St. Bartholomew's C. Of E.  
Primary School, Quom

**Subject: PE**      **Topic: Athletics**      **Term: Summer**      **Year Group: 3 / 4**      **Teacher:**

Links to N/C	Learning Objectives	Activities / Class organisation / Differentiation	Resources
1a	To consolidate existing skills	In classroom, remind children how to measure and record their performance.	Throwing box
1b	To perform actions and skills with more consistent control and quality.	Warm up – Catch your shadow Ask the children to explain why they are warming up.	Jumping box
10c	To pace themselves.	Ask the children to identify how running a short distance differs to running a long distance. Get the children to demonstrate these speeds.	Running box Hurdles box
10a	To take part in challenges that call for precision, speed and power.	Children to rotate around activities in their groups measuring and recording their performance at each activity.  Plenary - Ask children to see if/how much they have improved since week 2. Can they identify why they may have improved? – Practise, fitness, skill development...	Cross-country box

## Lesson 8

**Subject: PE**      **Topic: Athletics**      **Term: Summer**      **Year Group:3 / 4**      **Teacher:**

Links to N/C	Learning Objectives	Activities / Class organisation / Differentiation	Resources
10a	To take part in and design challenges and competitions that call for precision, speed, power or stamina	In the classroom explain to the children that this week will be different to previous weeks.	Hurdles
10b	To use running, jumping and throwing skills both singly and in combination	Explain that they will create their own challenges in their groups and then circulate around the other groups trying their challenges. Ask some children to collect the equipment and to leave it in a pile at the edge of the field.	Quoits Beanbags
10c	To pace themselves in these challenges and competitions	Warm up - Sharks  Ask the children to get into their original groups and to think of an athletics challenge using the equipment provided. Eg. Throwing on target, a jumping game, a combination of tasks like an obstacle course. Allow them some time to practise and refine their activity and then ask each groups to demonstrate their challenge.  Children to rotate around the groups attempting the challenges	Hoops Cones Variety of throwing equipment



## **Appendix H: CPD handouts**

### **Teaching Ideas: Running**

#### **Activity 1: Style**

Ask the children to run with their hands by their sides and then with their hands on their hips and then on their heads. Ask them whether it was difficult to run like this and why. Then ask them to run using their arms and ask a child to demonstrate this to the others. Discuss why using your arms helps you to run faster.

#### **Activity 2: Style**

Ask the children to time how long it takes them to run approximately 60m using their usual stride, then get them to use little steps and then big strides. Discuss which was quickest and ask the children why they think this is. Encourage them to try lengthening their stride when they run.

#### **Activity 3: Style**

Put the children in pairs. Ask one member of the pair to run normally and ask the other one to try leaping from one leg to the other. Get the other children to watch as the two children race, and discuss which was fastest and most efficient. Allow all the children some time to have a go at this and let them swap so that each child has a chance to run normally and each gets the chance to try leaping.

#### **Activity 4: Style**

Ask the children to watch as their friends run one length of the track. Get them to see how far forward or back their friends lean when they are running. Does anyone run upright? Then allow them some time to explore the best position to run in. This should be comfortable and allow a fast, efficient pace.

#### **Activity 5: Pacing**

Discuss the different paces: walking, jogging, running, sprinting and when they may be used. Ask the children to see how far round the field they can sprint before they have to stop or slow down. Discuss why it is not possible to sprint long distances. Ask the children to find a pace that they can run comfortably at for two laps of the

field. How would they alter this pace to run once round or ten times round? Ask them to try running for 20 strides and walking for 10 and discuss whether and why this is easier.

**Activity 6: Relays**

Show the children how to give and receive the relay baton. Allow them to practise changeovers and set up some relay races. These could be continuous relays where the baton is passed in a straight line down the track or round the field, or relays where the children pass the baton up and down the track.

**Activity 7**

Ask the children to set themselves up at the start of the sprint track and get them to race each other but running backwards. Encourage them to look over their shoulders as they run but not turn their hips. Ask them how this differs to running forward – are the muscles they use the same?



## Teaching Ideas: Jumping

### Activity 1: exploring jumping

Ask the children to demonstrate a hop on each leg, then a jump from one leg to the next. Can they find any other ways of jumping? E.g. two feet to two feet or one foot to two feet. Ask them when they might use these jumps. For example a one foot to two feet jump might be used in long jump and a hop might be used as part of the triple jump.

### Activity 2: technique

Get the children to stand on a line and see how far they can jump with their hands at their sides. Get them to compare this with how far they can jump when they use their arms to propel themselves. Encourage them to swing their arms up as they take off. Discuss whether they should be jumping high or far or an optimal mix of the two. Why do they need height when they jump? You could demonstrate this with a ball, which will not travel far if it has no height at all, neither will it travel far if you throw it too high.

### Activity 3: technique

Ask the children to stand on a line. Get the children to jump as far as they can from a standstill. Then ask them to take one stride away and see if they can jump further. Then get them to take three big strides away and see if this longer run up helps them to jump further. What about 5 strides?

### Activity 4: technique

Ask the children to stand on a line and take three big strides behind the line. Ask them to start with their left foot and see which foot they take off with. Then get them to start with their right foot and see which foot they end up taking off with. Ask them to think about which foot they prefer to take off with and remind them that they should start their run up with the opposite leg. Allow them some time to decide on their preferred foot and to practise which leg they should start off with.

### Activity 5:

Get the children into teams of four and do a jumping relay. Number the children from one to four. Child 1 jumps first and child 2 has to take off from where child 1 lands and so on. They can compare their combined distance with other groups or with their own performance.

**Activity 6:**

Get the children into groups of 4-6. Each group should have a marker cone. Place the marker about a stride away from a line on the playground or field. Can all the children jump as far as this cone? Get them to place the marker two strides away and so on. What could they do to jump further (run up)? How many of their own strides can they jump? How could they make their measuring more accurate?

**Triple Jump****Activity 1**

Ask the children to see how far they can get with a three strided jump. Get them to think about the type of jump they are performing (probably one foot to the other foot – more like a leap). Can they think of another name for the triple jump? Can they demonstrate what they think a hop, skip/leap and jump may look like? As a class, practise a slow-motion hop and then a skip/leap. When they have grasped this, try a hop, skip/leap and then a jump. The final jump should be similar to their standing long jump style.



## **Teaching Ideas: Throwing**

### **Activity 1**

With a collection of items such as beanbags, quoits, tennis balls, cricket balls etc. explore under and overarm throws. Explore how high these items need to be thrown for them to travel furthest. They need some height to them to travel far but too much height will prevent them from throwing far. With the quoits, practise a discus style of throwing and allow the children some time to practise spinning as they throw. They will need to be facing forward when they release the quoit. Demonstrate how taking a step forward when you throw can increase the distance of the throw and help the children to work out which leg they need to step forward with!

### **Activity 2**

Discuss safety with the children. Explain why it is important for them all to throw and then all to collect their equipment. How could they standardise their throws? Suggest that they always start on a line and that they throw and measure from this line. Get all the children with equipment to throw and then measure their throws and then they can swap and let someone else have a try. Discuss why it is useful to have a friend to help them measure their throw. (Because someone can hold one end of the tape while the other measures).

### **Activity 3: Accuracy**

Set up some hoops or marker cones in front of where the children throw from. Get the children to aim their throw into a hoop or as far as a certain cone. You could allocate points to different hoops or distances. It would be sensible to reward throws that go straight rather than throws that go to the left or right. Explain that they must look where they are throwing and make sure their body isn't twisted round to the right or left.

### **Activity 4: Run-ups**

Allow the children to explore whether a run up increases the distance they can throw. They will need a record of how far they can throw when they throw from a standstill.

Explain that they will need to throw from the same line as their standing throw. They may need some time to get their run-ups accurate.

### **Teaching Ideas: Hurdles**

- Hurdles may be traditional hurdles, cones with poles, poles on the floor or poles on top of disc cones.
- Don't worry too much about how far apart to space the hurdles, you will see if they are too close or too far apart, and you can then adjust them if necessary.
- An easily cleared height is preferable for all practising activities. You might want to raise them at the end of the session or if they grasp the techniques quickly.
- KS1 and 2 should be exploring the hurdles and developing basic skills rather than attempting a long row of high hurdles.

#### **Activity 1: Exploring the hurdles / warm up activity**

Set up hurdles so they are a stride apart and very low. Allow the children some time to run along the grid and ask them to raise their knees as high as they can get them. Then spread the hurdles out further apart so the children have to stretch to clear them, keep moving them further apart until they can no longer get just one stride between them.

#### **Activity 2: Exploring the hurdles / warm up activity**

Instead of going over the hurdles, ask the children to run in and out of them.

#### **Activity 3: Exploring the hurdles / warm up activity**

Set the hurdles up so that every other hurdle is at its highest and the rest are at an easy height to jump. Ask the children to go over and under the hurdles. If your hurdles are not adjustable, then set them up at the same height and the children will have to bend right down! They could also go under all of them and score points for not knocking them down.



**Activity 4: Exploring the hurdles / warm up activity**

Set the hurdles up so that they are well spaced out and in alternate lanes. They should be set at an easy height. The children will have to run from left to right and right to left in diagonal lines jumping the hurdles at an angle.

**Activity 5: Encouraging the children to increase their stride length**

Line the children up so that they are running down a free lane. Ask the children to run for 3 strides and then jump as high as they can. Then repeat but get them to jump as far as they can. Discuss how jumping upwards can slow you down.

**Activity 6: Encouraging the children to increase their stride length**

Ask the children to leap along a free lane. Encourage them to stretch and demonstrate how they will also need some height to carry them any distance.

**Activity 7: Basic techniques / being aware of stride length and number**

Set the hurdles up so that the first 3 or 4 are very low (perhaps poles or disc cones on the ground) and about two strides apart. The remaining 3 or 4 hurdles should be at a comfortable height and spaced further apart. Encourage the children to run fast and to count the strides between the hurdles. The fewer the better.

**Activity 8: Practising take off with non-preferred leg**

Set up four hurdles, which are spread quite far apart and at an easy height to jump. Allow the children some time to explore which leg they prefer to take off with and then encourage them to try taking off with the other leg too. Get the children to watch each other and ask them to watch whether they can take off with their non-preferred leg.

**Activity 9: More advanced technique**

Discuss an effective technique with the children. Body should be low, they should jump up and across rather than just up. They should take off with either leg. The leading leg should lift up and over the hurdle and the trailing leg tucks up behind. Get the children to try jumping over the hurdles in this style. First of all ask them to try

tucking their trailing leg back as they jump over the hurdles. They should be able to touch their bottoms with their heels and their leg should be as horizontal as they can get it. Try practising this in a standing position, without the hurdles and with low hurdles before allowing them to try it over hurdles at an easy jumping height.

### **Activity 10: Run ups**

Set one hurdle up at an easy height and ask the children to jump over it from a standstill (if they can), from two strides away and with a run up. Discuss which was most effective and why.

### **Activity 11: Run up and take-off points**

Put the children in pairs or small groups and give each group one hurdle. Ask them to start with their backs to the hurdle and get them to walk five long strides away from the hurdle. This will be their starting position. Ask their partner or the remaining members of the group to watch and see if this is a sensible run up, is it too close, too far away or just right? Get them to adjust their starting points so that they reach the hurdle at a comfortable place to jump.



### Teaching Ideas: Athletic challenges

By now the children in your class should be used to performing traditional athletic activities. They should be familiar with the equipment and be aware of how to measure their performance.

By designing their own activities, we are asking them to use their existing knowledge of the equipment as well as a little creativity to invent new challenges that they and their friends can take part in.

- Start by dividing your class into small groups - 4/5 works best.
- Set out a variety of equipment at the edge of the field. (Cones, hoops, bean bags, tennis balls, quoits etc.)
- Allow the children to collect their own equipment and encourage them to only take what they think they will need. They are also allowed to come back and collect more items if they need them later.
- Tell the children that they have 5 – 10 minutes to design a challenge for their friends to participate in:
- Their challenge must have a clear purpose. This may be **precision**, such as throwing hoops over cones; **speed** such as racing with a bean bag on their head; or **distance** such as how far they can throw with their non-preferred hand.
- They must think about rules to prevent cheating and to encourage fair play and they need to decide whether it will be a team or an individual challenge.
- Allow the children some time to think about, practise and refine their challenge. You may need to provide a lot of guidance with some groups.

- If one group finishes before the other, they can demonstrate to the rest of the class and hopefully inspire the others!
- Gather the class back together and rotate around each activity allowing the children to demonstrate their challenge to the rest of the class.
- If time allows, the groups can rotate around trying each others challenges.
- Years 5 and 6 could be encouraged to provide feedback about how they found the task. Whether it was easy or challenging, well explained or unclear, enjoyable or meaningless etc.
- If you do not have time for the groups to rotate around, you can save it for the next week, allowing the groups a little bit of time at the beginning of the lesson to remember what they did.
- If you have time in the week, you could write down the children's ideas and laminate them so that you have some circuit cards ready to use the next week. Or this could be something that the children do in their groups in literacy or on the computer.

**Example activities:**

- Throwing beanbags into hoops. Different hoops have different points.
- Throwing hoops over cones
- Quoit/hoop rolling
- Obstacle races
- Shuttle runs between two hoops (Timed or a race)
- Zig-zag runs between cones or markers
- Jumping from hoop to hoop, each time the hoop is further away.
- Long distance run, keeping together in a team or with a partner and seeing how long they can run for.
- Relays



## Appendix I: comparison of Schools

Comparisons between the two case study schools and the national average. (2003)

Percentage achieving Level 4	School A	School B	National Average
English	90	67	75
Maths	92	70	73
Science	96	98	87

Percentage achieving level 5	School A	School B	National Average
English	38	12	27
Maths	36	21	29
Science	42	53	41

Average Points Score (SATs)	29	27.4	27.7
-----------------------------	----	------	------

	School A	School B	National Average
Number of pupils	362	247	
Percentage of Special needs children	7%	25.1%	
Number of children with statements of special needs	6	7	
Percentage of children eligible for free school meals	1%	14%	14.3%
Number of children of ethnic minority heritage	2	22 (2001)	

## Appendix J: Lesson Observations – school A

### Lesson observations: school A

#### Simon's lessons (Year 6)

Only one of Simon's lessons was observed. This was a year six lesson and both of the year six classes (approximately 50 children) with both class teachers were involved. The general format of the lesson involved Simon taking most of the lesson and the other year 6 teacher assisting him by managing the resources and providing individual input to children during the activities. The National Curriculum activity being covered was games, although the games were adapted variations of more popular sports. The warm up consisted of the children following each other around the lines of the playground hopping, skipping, running and walking. Three adapted games were used during the main part of the lesson and were effective in including all the children in the lesson. The children seemed familiar with most of the games they played as they had played them in previous lessons; only one new game was introduced and this was done through a demonstration with a small number of children.

Despite the large number of children on the playground participating, there were few noticeable problems. The resources were managed well and the children collected them and returned them efficiently; Julia (the other Yr 6 teacher) assisted by allocating resources to the children and setting them out during explanations. There were few behavioural problems and those children who did not listen or behave were sent to sit at the side for about 5 minutes and were then allowed to rejoin the lesson. Simon's teaching in this lesson suggests that he has considered how the children learn and what he wants the children to learn. He taught through his own and other children's demonstrations and he explained the particular skills that he wanted the children to learn. For example, he explained that he wanted the children to practise their throwing and catching in the second game and he asked them to concentrate on marking in the third game. There seemed to be a direct link between what Simon wanted his pupils to learn and the activities planned to facilitate learning.



### Harry's lessons (Year 4)

Two of Harry's lessons were observed during this research. The first lesson involved much input from myself because Harry admitted that he knew very little about how or what he should be teaching in PE. He did not have a lesson plan for the lesson and had little idea of what he wanted the children to do. He did not appear to have considered what or how the children might learn. I took the warm up and Harry observed it and then I suggested some ideas for the main activity so that Harry could use these to teach his class. He seemed surprised that the children were not expected to participate in full-sided 'proper' versions of popular games and he was appreciative of being shown how certain skills and tactics could be broken down.

The second lesson was taught from a colleague's lesson plan. It was a dance lesson and Harry started the lesson by attempting to repeat some of the warm up activities I had shown him in the previous lesson. He did not appear to be able to remember much of what he had observed. At the very least, his learning needed to be reinforced as he forgot many of the stretches and so attempted to invent new ones. On one occasion during the lesson in front of the children, and on one occasion after the lesson, Harry admitted to me that he had no idea of how to teach dance. He did attempt, however, to teach the lesson according to the lesson plan provided by another teacher. The children were asked to twist from high to medium to low positions and by the end of the lesson, a recognisable sequence to music had been created. It was evident in the second of Harry's lessons that the pupils' learning had been planned for and the children did meet the learning objectives for the lesson, although the quality of the work was questionable.

### Linda's lessons (Year 3)

I observed two of Linda's lessons. The first was a games lesson and used task cards detailing small-sided adapted games. The children were sent to get the appropriate equipment and were given a lot of responsibility for collecting and setting it out. The task cards gave some guidance but the children also had to use their initiative to set up the game. Some of the games that the children designed were quite traditional, whereas others were more inventive. For example, one group had every player on the same team. After the children had been allowed some time to set up and practise the

games, they rotated around to see the other games and had some time to discuss each other's games and suggest improvements. The lesson and learning objectives were clear but there was not really enough time to develop the skills that were to be learnt.

The second lesson was a dance lesson. As the children entered the hall, they were met with music from the piano and they knew that they should get ready quickly and join in with the warm up activity; this was a very effective strategy as the children were engaged in activity from the moment they were ready and they did not have to wait for the slower children. The children were given the opportunity to move to music individually and in pairs and they were stopped frequently so that ideas and moves could be shared and demonstrated. The children who thought of interesting moves were praised and asked to demonstrate. The lesson was active but only in short bursts as Linda was constantly trying to change the focus to ensure the children were attentive. At the end of the lesson, the children were brought together in a circle and asked to demonstrate one move, which the rest of the class then copied for a few beats of the music. Linda's planned activities did provide clear opportunities for children to learn, although time for practice on each activity was limited. She used demonstrations and discussions to extend the children's learning in both her lessons.

#### Claire's lesson (Year 2)

The children appeared to enjoy Claire's dance lesson and responded well. The class had already practised some of the actions in a previous lesson and so the first half of the lesson helped them to remember their moves, which were based around the building of Noah's Ark. The children were then put into pairs and told to work together to improve their movements. The class was stopped when one of the groups thought of an interesting and appropriate move and this was demonstrated to the rest of the class. The pairs then joined up to make groups of 4 and they were asked to share their ideas with the other pair. This was not always successful as the children were more keen to demonstrate than to observe. The children were given opportunities to be creative and responded well to the challenges. This was supported by constant and constructive feedback from the teacher.



### Tina (supply teacher) (Years 3 / 4)

Tina was taking the deputy head's class on this occasion. She is a regular supply teacher in the school and is very familiar with the class. The dance lesson started with the children moving around each other in a variety of ways and this progressed into the main part of the lesson. The children were asked to do some simple stretches by curling up and then stretching tall. They were then divided into two groups according to the colour of their tops. One group had to twist around whilst keeping their feet together, the other group had to get as low as they could without moving their feet. The teacher pointed out that it was easier to get down low if their feet were apart. The next activity involved clapping or stamping to the beat of the music. This was performed on the spot and then on the move around the hall, and finally the children were encouraged to control these movements within a confined space. Although Tina did provide structured activities, the only time she taught the children something specific was when she advised them how to twist low by keeping their feet apart. Tina had been given the lesson plan by the class teacher and it is unclear whether the planned objectives were achieved in the lesson.

### Michelle's lesson (Year 5)

I was able to observe one of Michelle's lessons that focussed on games skills. She set up four activities based on throwing and catching and got the children into four groups. The children then spent some time participating in the activity. It was a very cold day and Michelle had to adapt her plans so that the children did not stand still for too long. This meant that there were few opportunities for teaching input, discussion or reflection. Although the games aimed to develop different throwing and catching skills, these objectives were not shared with the children and because of the cold, they did not have an opportunity to think about what they had learnt. Michelle managed to teach an active, enjoyable lesson in adverse conditions and was able to adapt her lesson plan suitably and effectively. Michelle had found an effective way to collect the equipment at the end of the lesson; she divided the class into two teams and challenged them to collect as many items as they could by bringing them back to their coned area, one at a time.

## Appendix K Lesson Observations – school B

### Lesson Observations: School B

#### Jenny's lessons (Year 3)

I observed two of Jenny's lessons. One was hockey and one was dance. Both of the warm ups I observed were active, but only one involved some stretching. Jenny taught some hockey skills, through her own and pupil demonstrations, and she asked a child to demonstrate how 'not' to do something in her dance lesson. I did observe a number of children holding the hockey stick incorrectly and many of them were hitting the puck rather than pushing it so they spent much of the lesson retrieving the puck from the other end of the hall. The children in this lesson seemed to be at an early stage of skill development. Jenny provided them with activities to practise but she did not teach them the basic skills to perform the activities successfully. Jenny had planned for the children to progress skills that they had not really acquired and so many of the children were unable to learn the planned skills from the lesson.

#### Sarah's lesson (Year 5)

I observed one of Sarah's lessons, a volleyball lesson. The warm up consisted of some stretches and some actions performed on the spot, such as running, jumping and hopping. Sarah explained that this was their fourth week and that she had spent some time establishing procedures so that time wasn't wasted setting up the hall. The children were quick to set up the nets and remembered some of the passes they had been taught in previous weeks and this was reinforced by further demonstrations. The children were responsive and the teacher had established a procedure where the children sat down when she said, "rest". The children's performance in this lesson suggested that they had successfully learned some volleyball skills in a previous lesson. This particular lesson enabled the pupils to practise and develop these skills. The learning objectives for the lesson, however, were not clear and it is difficult to conclude what learning had been planned for or was achieved in the lesson.



### Sally's lesson (Year 5)

One of Sally's lessons was observed. She had a cold and had decided to teach an 'easy' lesson. She started the lesson by warming the children up; this involved her clicking her fingers to create a rhythm and then stretching up and down and left and right and asking the children to copy her. The main activity was based on team games, where the children had to take it in turns to complete an activity and the first team with all members completing scored points. The lesson was active and the children enjoyed it but there was little specific teaching planned.

### Supply teacher's lesson (Year 5)

The warm up to this lesson was a general 'loosening off' exercise, where the children focussed on rotating their joints rather than doing specific stretches. The children were divided into two teams for the main activity and given a number from 1-12. Various activities, like goal scoring and dribbling were set up. The teacher called a number between 1 and 12 and shouted the name of one of the activities and the children had to compete against the corresponding member of the opposing team. The children seemed to enjoy this but there were only 2 children active at any one time. There was no specific lesson plan for this lesson although the children may have learned something as a result of the lesson, but the desired learning outcomes were unclear.

### Val's lesson (Year 4)

The children were asked to warm up by running along the lines of the pitch; they then did a number of stretches, paying most attention to the legs and arms. The main activity was hockey and a number of progressive activities were explained and then tried. For example, the first activity required groups of three to practise dribbling and passing. This progressed into a small-sided version of a game of hockey. The children were shown how to hold the hockey stick correctly at the start of the lesson but there was no other specific skills instruction.

### Kelly's lessons (Year 6)

Kelly was responsible for teaching PE to both year 6 classes because the other teacher had health problems that prevented her teaching PE. I observed Kelly taking both of these classes on one occasion each. She was teaching circuits/fitness to the class and was able to leave the equipment out in between lessons. Her first warm up involved the children walking, jogging and then running in time to a spoken beep. The second one was a game where the children had to move from mat to mat without touching the hall floor. Where they had to travel on the hall floor, other pupils (sharks) could tag them. In the main activity, the equipment was set up around the hall and Kelly explained to the class what was expected of them at each 'station' The children moved round all the equipment in a continuous circle. The only direct teaching came from my own attempts at demonstrating a sit up and a press up. The children were left to participate in the activities but were not taught any specific skills. It was difficult to identify the desired learning outcomes from these lessons.



## Appendix L: The teachers PE and CPD stories (school A)

### The Teachers PE and CPD Stories (School A)

#### Simon's PE and CPD story

When teaching PE, Simon always tries hard to ensure that each lesson has a clear objective and gives the children in his class the opportunity to try new activities and develop their skills. Essentially, he sees PE as being similar to other curriculum subjects because the same management techniques and teaching strategies can be employed. Unlike some teachers in this research, teaching PE is not a 'big issue' for Simon and so is not viewed as something to fear. Simon draws on his knowledge of other areas of the curriculum and his own past experiences to plan and teach his PE lessons.

Simon feels confident to teach most areas of PE as a result of his 11 years of teaching experience. However, whilst enjoying the gymnastics lessons that he taught, Simon did try to avoid teaching dance and said that he often tried to swap his dance lessons with another teacher. Interestingly, he did identify that he learnt something about teaching PE every time he taught a lesson, but it is also possible to identify other, more formal sources of knowledge. Simon describes his initial teacher training as 'sketchy' and thinks it consisted of approximately 2 hours every week for each of the three terms of his PGCE course. He could not remember the specific content of his pre-service training but did remember that it focussed quite heavily on safety issues. Since qualifying, Simon has attended a limited number of courses: athletics, team games, ball games (rugby, cricket, football) and a swimming course. Of these, he particularly praised the athletics course and described it as one of the best courses he had attended. Simon explained that it had been effective because it taught him things that he would actually be able to use in school and so was applicable in practice.

Other than these organised courses, Simon identified opportunities to watch or learn from colleagues as an additional source of learning. He felt that he would be more confident to teach dance if he was given an opportunity to observe colleagues or specialist teachers, or if he had access to better and more detailed resources.

Additionally, he could remember some INSET days that included PE training but, like the sports courses he had attended, these were undertaken many years ago.

When asked to reflect on professional development generally and features of it that can help to make it more effective, Simon highlighted the importance of courses being led by interesting leaders with recent experience in the classroom. Simon felt that the longer people have been away from the classroom, the more out of touch they become with what is possible and practical. Simon also identified supply cover and having to link staff development to the school's development plans as two ongoing problems. These two constraints, he feels, limit how much PE-CPD is made available to teachers.

### Harry's PE and CPD story

Harry's story is particularly interesting as an example of some of a newly qualified teachers who does not view himself as 'sporty'. Harry found it difficult to draw on his own sporting experiences because he did not have a personal interest in the subject and, as an NQT, he had little teaching experience upon which to draw. He did, however, express some interest in football and said that he was more confident when teaching this. His pre-service PE training was limited and he had not been offered any extra help by the school since taking up the post.

The pre-service training undertaken by Harry consisted of 'a couple of afternoon sessions'. He described the content as being very good but, for it to be effective, he needed more and suggested that 10 or even 20 afternoon sessions would have been useful. At the point of the interview, and after two terms of teaching, Harry described his confidence to teach PE as very low and hinted that he was concerned about what it was safe to expect the children to do, especially with the apparatus in gymnastics. He had not been shown or told what he could or should do safely. Not only was he worried about safety, he was also unsure of how to teach most areas of the PE national curriculum and explained that the only activity he felt happy teaching was football because he played this occasionally himself. Harry also mentioned the warm up as an area of PE that he couldn't teach and whilst he was aware that he could go away and find resources that would show him an effective warm up, he had not had the opportunity to see one being done in practice with the children.



As has previously been mentioned, NQTs do receive additional support to attend courses. PE was an area where this teacher was clearly lacking in knowledge and experience, yet he had not been encouraged to attend any PE-related courses. Moreover, during his non-contact time, no arrangements had been made for Harry to observe PE or have his own lessons observed. Harry's low level of confidence could be seen in the way he approached PE lessons. Another teacher planned all his PE lessons and Harry explained that he often did not understand them or know how to teach them. Quite often, he would arrange for his non-contact time to occur when he was due to teach PE so that the supply teacher could take his lessons. Whilst this may have been a benefit to the children in his class, it did not help him to further his learning and so just displaced the problem.

The main source of PE-CPD cited by Harry was contact with the researcher during the year of fieldwork done for this study. As part of the research process, he had the opportunity to observe PE and discuss his own lessons with me and he felt this had enhanced his understanding of how to teach PE. He also commented that being able to observe another teacher taking his own class had been particularly beneficial as it provided him with ideas for managing the children that he would normally be teaching. The benefits of working so closely with a more experienced teacher were obvious to him and he wished for more opportunities of this nature

#### Linda's PE and CPD story

Linda trained as a secondary PE teacher. She enjoys teaching PE because she likes to see the children's enjoyment during activities and their achievements. Despite this, she listed a number of difficulties experienced and felt that her own low levels of fitness hindered her PE teaching. Linda commented that the children's noisiness (from excitement) was sometimes a problem and she also identified problems with equipment, and controlling the children and the equipment safely within confined spaces.

Linda's knowledge of PE has, unsurprisingly, come from her years of experience and specialist training, yet she felt that she was still learning and that she did learn something from most lessons, especially when she tried new teaching techniques. Linda describes her pre-service training as memorable and still employs some of what

she learnt as an undergraduate in her PE teaching. Other sources of her learning in PE include memories of being a pupil in PE and the lessons she was taught at school although as the curriculum has changed, it has not always been possible to carry these teaching ideas and methods forward. For example, Linda described gymnastics as being more exploratory now than it had been when she was at school when pupils lined up and waited their turn to perform a particular move on a particular piece of apparatus. It is clear that Linda's personal experience and expertise in a number of physical activities have supported her subject knowledge, moreover, she also used to teach some sports and activities at a 'summer camp' in the holidays and felt this had been useful in her teaching too.

Linda could recall some 'Twilight' CDP courses that she had attended for PE. She thought that these were predominantly theoretical and had not been very effective because she hadn't really learnt anything. In addition to these, she had attended a 'ball skills' course that she described as 'excellent and it was totally practical' (CPD interview, 2002). This particular six-session course had been organised by local schools; a local authority advisor was invited to lead the sessions and because they were all taught together, the cost divided between the 7 schools was low. Linda also identified a time when LEA advisors came into her school to help teachers with areas of PE where they were lacking confidence. Linda describes this as effective because some of the children stayed behind after school and they were able to observe an 'expert' teaching in a context-specific situation.

#### Claire's PE and CPD story

Claire enjoys teaching PE although she does not feel especially confident. She feels that PE can be hard to teach because it is so active and because the children don't always listen. The resources are also difficult to manage because the children are young and so can't be relied upon to get the equipment out quickly and safely. Claire feels that she has benefited from her one year role as joint PE co-ordinator although she was concerned that she was neither suitably qualified nor experienced to do the job well and lead other members of staff. She feels that she knows *what* she should be teaching but sometimes finds it hard to know *how* to teach it. When asked about the source of her ideas for PE, Claire identified lesson plans that exist within the school and the advice of more experienced colleagues. Claire also felt that she learned



something from each PE lesson that she taught and from the ways the children responded to her teaching.

Looking back on her initial teacher training, Claire cannot recall observing any PE lessons although she admits that she must have seen some. She describes her training as 'awful' and criticises it for being too practical. All of her PE training was crammed into one week and consisted mainly of students participating in activities rather than being taught how to teach those activities. Claire also felt that her PE training may have been more effective if she had been asked to focus on specific aspects of PE such as behaviour or equipment management. The only in-service course Claire had attended was an 'assessment in PE' course and she felt this had been a waste of her time because it did not teach her anything about how to teach PE; instead it focussed on how the school could establish a formal system of assessment within PE. She felt this was of limited use.

#### Laura's PE and CPD story

Laura identified her college course, other colleagues, newspapers, education magazines and books as sources for PE teaching ideas. Her college training had a heavy emphasis on gymnastics, safety aspects and basic ball skills. Since qualifying as a teacher, Laura has attended a two day short tennis course, which she described as 'good'.

## Appendix M: The teachers' PE and CPD stories (school B)

### The Teachers' PE and CPD Stories (School B)

#### Jenny's PE and CPD story

Jenny was at a PE training college, where she had an afternoon each week of training in PE throughout her 3 years. She describes this training as thorough and lists games, dance, gymnastics and swimming as the main activities. As well as being taught these activities at college, Jenny also spent time teaching and observing them in schools and this was in addition to 'normal' teaching practice. Jenny also took part in a number of sports for her own fitness and enjoyment and she found this useful in her teaching. In addition to this initial PE training, Jenny has been on a number of PE-related courses including TOPS training in swimming, dance and soccer, and courses in athletics and basketball. Other sources of knowledge include a personal interest in badminton, both as a coach and as a player. Jenny has also benefited from watching her own children learn to swim and working with a tennis coach and a dance specialist within her PE lessons.

#### Sarah's PE and CPD: a brief background

Sarah can recall a couple of dance lessons from her initial teacher training course but cannot remember the content of these. Since qualifying as a teacher, Sarah has been on a two-day swimming course but 'not much else' (CPD questionnaire, 2003). She identifies documents and her PE co-ordinator as sources of PE knowledge and she helped trial a games publication in the early 1990s.

#### Sally's PE and CPD: a brief background

Sally's initial training in PE included a number of sports but she cannot remember any specific training in teaching these sports: 'you just played it' (CPD questionnaire, 2003). Since qualifying, she has attended a one-day swimming and lifesaving course and received some PE inset training in school. Most of Sally's ideas come from books that she buys, the PE co-ordinator and advice from her daughter, who is training to be a PE teacher.



Kim's PE and CPD: a brief background

Kim recalls her PE training as thorough, fun and enjoyable but criticises it for concentrating on 'doing' PE rather than learning how to teach PE. Further sources of learning in PE include some inset training, informal discussions with colleagues and some reading. Kim also attended a monthly dance workshop between 1992 and 1994. She notes (unsurprisingly, perhaps) that she had more opportunities for training in PE whilst she was the PE co-ordinator than she does now as music co-ordinator.

Kelly's PE and CPD: a brief background

Kelly describes her initial PE training as comprehensive and stated that she had to pass the PE section of the course to gain her degree. She took part in games, swimming, gym and dance, both at college and on teaching practice. Kelly has not received any further training since qualifying but has been able to observe others teaching and has gained some ideas from books she has read.

## **Appendix N: The teachers' assessment of the CPD**

### **The Teachers' Attendance at, contribution to and assessment of the CPD package (school A)**

#### Simon

Simon did not choose to attend these sessions although he did use the equipment and lesson plans in his own athletics teaching and when teaching with the other year 6 teacher.

#### Harry

Although Harry expressed a keen interest and attended the first sessions, factors such as illness and personal circumstances meant that he did not attend many of the later sessions or have the chance to implement anything that he had learnt. He was absent when I distributed the final questionnaires and he had not taken an active enough part to be able to evaluate the package as a whole.

#### Linda

Linda attended all but one of the CPD meetings and, as PE co-ordinator, played an active part in developing the lesson plans and encouraging involvement. Her learning throughout the CPD is assessed from transcriptions of meetings, an observation of her athletics teaching and her answers to the questionnaire. Many of Linda's comments in the CPD meetings were based upon improving the lesson plans or making sure they would be accepted by OFSTED. She was concerned, to start with, that the lesson plans did not show enough progression. Her suggestions in activities were useful and illustrated her knowledge of PE.

Linda reports that she found the athletics professional development very effective and that she felt it had helped her to improve in a number of areas of athletics and PE teaching. Linda highlighted that seeing demonstrations and having the accompanying lesson plans had enhanced her learning throughout the sessions. She did not identify any aspects of the package that she felt were ineffective although she did suggest that more opportunities for lesson observations would have been helpful. She found the running and pacing session particularly effective because it introduced a useful



management technique whereby a central zone was used. An observation of Linda teaching athletics revealed that she was implementing much of what she had learnt in CPD sessions and that she was adopting the lesson plans and suggested format in her teaching.

Linda could not identify any opportunities for collaborative professional learning other than one session where she had joined another teacher on the field and they had been able to 'bounce ideas from and towards each other' (CPD assessment questionnaire, 2003). Linda could appreciate the value of CPL in schools but felt that it was dependent on teachers team teaching. She did not identify other times in the school day when CPL might occur.

### Claire

Claire was on a computer course on Tuesday nights when the meetings took place. She also decided that, as a year one teacher, athletics was not really relevant to her teaching and the KS1 curriculum.

### Laura

Laura attended most of the CPD sessions. Despite teaching year 2, who are not required to learn athletics, she felt that she would benefit from some professional development in athletics as she normally taught in KS2. She also decided that many of the throwing, jumping and running skills that would be taught in athletics were relevant to the KS1 curriculum.

Laura did not complete the final CPL questionnaire but did attend the latter half of the questionnaire discussion. It is difficult to be certain of her assessment of the package but I was able to observe and participate in one of her athletics lessons. Early on in the term, Laura had stated that she was unclear of how to teach throwing skills and she asked me to take the throwing group in the lesson I observed because the OFSTED inspectors were in school. Laura did utilise the lesson plans and many of the teaching points covered in meetings were evident in her teaching. She had set up the field as suggested but with a few adaptations; she taught specific skills and then allowed the children to practise them. She also used one of the warm up games, included in the lesson plan pack.

Pat

Pat attended many of the CPD sessions and contributed actively to problem-solving and other aspects of the meeting. Pat's CPL questionnaire shows that she found the sessions to be effective and felt it had helped to improve many areas of her PE knowledge and understanding. She found the warm-up activities and the running and pacing session particularly useful as they provided her with new ideas and different activities to try. She suggested that it would have been helpful for her (and others?) to have seen a lesson being taught by myself or another 'expert' so that she could see the lesson plan in action. I did get the opportunity to observe one of Pat's athletics lessons but this was a joint effort with the other year 5 teacher and my role as a participant in the lesson was to choose an athletics squad for the athletics championships the next week. I did not get the chance to observe the lesson properly but I did observe the warm-up and saw some running skills being taught. The lesson was set up as planned and both teachers utilised some of the skills they had been taught in the CPD sessions.

Pat did not identify any occasions where she had learnt collaboratively, although she did often team-teach with the other year 5 teacher. Pat identified a lack of time as the main factor preventing her from learning with and from others. She did, however, feel that CPL was a valuable form of CPD and suggested more team teaching and observations of others' lessons as possible opportunities for more collaboration.

Michelle

Michelle attended some of the CPD meetings but as music co-ordinator she had other commitments. This was not really a problem, however, because the other year 5 teacher was often present and was thus able to pass on the information. Michelle and Pat taught their PE lessons together so they were able to help each other out when gaps in their knowledge existed. Michelle did not return her evaluation questionnaire so her experiences of the CPD are taken from meeting transcriptions and observations of her athletics lessons. After the final support meeting, the phase II questionnaire was handed out and the teachers were given some time to discuss their opinions of the CPD. The nature of this discussion, which addressed each of the questionnaire questions in turn, meant it was possible to map many of her answers in the discussion to answers on the questionnaire.



Michelle rated the CPD as very good and felt she was able to teach athletics and PE with more confidence. She noted how useful the running and pacing session had been because it had focussed her attentions on getting all the children to achieve rather than just praising the fastest. She also felt that the warm up discussion had been useful and she had appreciated the chance to share ideas with her colleagues. As well as that session, she identified the team teaching she did as a form of collaboration, and highlighted one session where Pat had taught her the throwing skills she had missed from the session before. The one thing she thought would have improved the overall experience was the chance to observe colleagues or outside experts teaching. The only athletics lesson observed has already been discussed as this was a lesson where Michelle taught with Pat. (See above section)

Michelle identified that the team teaching she did with Pat was a form of collaboration, but she did not identify how or what she learned from doing this. She also stated that she would have like more opportunities to observe other teachers.

### Louise

Louise felt that the athletics CPD had been quite successful and that it had helped her confidence and ability in a number of PE teaching areas. She felt that the new resources, combined with old ones, were helpful to her teaching but questioned whether the lessons allowed for progression from KS1 to the end of KS2. She found the running and pacing session particularly effective because it informed her about the length of time her class ought to be able to run and provided her with a useful management technique, whereby the children were brought back to a central base. She made some suggestions about how the package could be improved and in particular, thought that a demonstration lesson would have been especially helpful.

Louise's athletics lesson occurred during the OFSTED inspection. She had adapted one of the lesson plans for the observation and utilised a number of techniques that she had been taught throughout the sessions, as well as some of her own previously learnt ideas. This lesson was rated highly by the inspector in his report and verbally to the head teacher afterwards and he felt that the children were achieving above the expected standards for their age group. As an experienced and effective PE teacher, Louise was able to adapt the plans and adopt new techniques to make her lesson a

success. In many respects, this lesson could be described as a model PE lesson and displayed elements of the athletics CPD and prior PE teaching knowledge.

Louise did not identify any opportunities in the sessions for CPL but believed that the two year 2 classes could have been joined together for some lessons so that she could learn from the other teacher. Despite the apparent absence of CPL in the sessions, Louise thought it was a valuable form of CPD because it could promote shared planning and greater uniformity in teaching. She felt that PE lessons were not observed because opportunities were not created and she hinted at the benefits of collaborations between schools, which she felt were not being effectively utilised.

### Julia

Julia's assessment of the athletics CPD was very positive – she rated the sessions as extremely effective and identified many areas where she felt her teaching had improved within PE and athletics. Julia found the equipment demonstrations, the lesson plans and the box system particularly helpful. The sessions she found most useful were the running and pacing, throwing skills and warm-ups, as well as the session where we initially went through the lesson plans. These sessions were effective because she found them fun and practical and she appreciated the available expertise. Julia did suggest that being able to observe someone teaching children in school on a regular basis as one area where the CPD could be enhanced.

Julia did not identify any sessions where she had learnt collaboratively although she did feel that she could approach the PE co-ordinator for help and advice. She believed that time pressures after school were preventing more collaborations because time was not set aside for teachers to develop and share ideas.



## **Appendix O: The teachers' assessment of the CPD**

### **The Teachers' Attendance at, contribution to and assessment of the CPD package (school B)**

#### Jenny's assessment of the athletics CPD

Jenny, as PE co-ordinator, attended all but two of the sessions. She missed the warm-ups session through illness and observed the athletics challenges from her classroom window because she had hurt her ankle. Jenny describes effective professional development as being active and prefers to take part than be told or given new ideas. She rated the professional development as being very effective and felt it had improved her athletics and PE teaching in a number of different areas. She found the style of professional development particularly effective because she could watch the skills being taught and get involved with teaching them to the children; she also found the accompanying notes useful. The biggest drawback to her learning was only being able to observe for short period in each session; she felt her learning would have been better if she had been able to observe for the full session. Jenny rated the running and pacing, the throwing skills and the athletics challenges sessions as particularly helpful and believed this to be because she was actively involved in learning the techniques. Jenny felt that her teaching had changed as a result of the athletics professional development. For example, she was focusing more on pacing and teaching specific throwing techniques and felt more confident in allowing the children to design their own athletic challenges.

Whilst Jenny agreed that CPL was a valuable tool for professional development, she did not feel that the structure of the practices had encouraged it.

#### Sarah's assessment of the athletics CPD

Sarah believed the athletics professional development to have been successful. She identified a number of areas where her PE teaching and confidence had improved and found the health and fitness and warm up sessions most useful. The demonstration of certain techniques in these session, being able to join in with the activities and seeing the skills broken down were particularly useful to Sarah's learning. Although handouts were provided to accompany each session, Sarah commented repeatedly that

handouts would have been useful. My field notes reveal that the PE co-ordinator did not always pass these on to staff.

The teachers in the two case study schools share some beliefs about the effectiveness of certain features of the CPD. They state their own personal opinions about their experiences of the CPD and highlight particular features that they found to be helpful or ineffective. An analysis of common opinions about the models of CPD provides a deeper understanding of the ways in which these two models may have helped or hindered teachers' learning.

Sarah viewed CPL as important to teachers' learning but felt that teachers sometimes don't get the opportunity to work together. She felt the structure of the athletics practices had prevented them learning from each other as they were often isolated from other teachers.



## Appendix P: Diary of Events (school A)

### January 2003

- Met with the Deputy Head to discuss the possibility of providing some athletics professional development.
- Arranged preliminary dates.

### February 2003

- Advertised the CPD sessions with a poster in the staff room and an announcement in a staff meeting.

### 04.03.03

- Introduced structure of the CPD – its aims, objectives and time scale.
- Introduced CPL and informal learning.

### 11.03.03

#### Aims of the session:

- Hand out draft version of the Yr. 3 / 4 lesson plans and explain the format of the lessons.
- Discuss the problems identified from lesson observations in the school and how the lesson plans aimed to overcome these.
- Explain the theory of CPL and identify why it is important for teachers' learning and ways in which it might occur in and between sessions.

#### Outcomes of the session:

- Arrange an assembly to introduce the format of the lessons and the equipment to the children.
- Identification of potential problems – overcrowding on the field, safety, time.
- Bring equipment into school before the start of the term to allow teachers to place the lesson plans into context.

### 18.03.03

**Aims of the session:**

- Identify any potential problems.
- Attempt to solve these problems collaboratively.
- Teachers to make adaptations to provisional lesson plans to facilitate their teaching and children's learning.
- Arrange a date for the assembly and a time to bring in the equipment.

**Outcomes of the session:**

**Problems discussed:**

- Whether there would be room on the field for two classes at one time.
- Where to store equipment boxes.
- How to establish routines with the children so that time is not wasted setting up equipment at the start of each lesson.
- Athletics not being a KS1 requirement.
- How to differentiate lessons.
- Lack of adult supervision at all circuit bases because the teacher can only position themselves at one activity at a time.
- How to record children's performances.

**Problems resolved:**

- Some teachers would team teach, some chose not to
- The equipment would be stored in the PE co-ordinator's mobile classroom so that it would be viewed as special but also would be easily accessible
- Time would need to be spent in the first few weeks to establish routines and this would shorten as the children understood what was expected of them. Time spent in the classroom and the assembly could be used to explain expectations to the children.
- Running, throwing and jumping are all KS1 requirements, and so this would be emphasised, rather than more traditional athletics activities.
- The warm ups for the younger children would be more fun and based on games. Younger children should be encouraged to explore the equipment (e.g. go under or round hurdles). The younger children should do less formal measuring and recording.



- Each week, one skill would be taught and the teacher would position themselves at this activity and help develop that particular skill.
- Measuring charts to be included in each box to allow the children to record and compare their performances.

### 01.04.03

- Gave out final lesson plans.
- Demonstrated equipment and left in school.

### 29.04.03

- Assembly to show the equipment to the children and to explain the format of their PE lessons.
- A meeting had been planned but had not been put in the school diary so I went to each individual teacher and asked if they had any questions and explained the first lesson.

### 06.05.03

Objectives of session:

- Evaluate lessons taught so far and discuss any problems.
- Focus on running skills.

Evaluation of lessons so far:

- Only 2 teachers had taught an athletics lessons from the provided lesson plans at this point because it had rained the previous week.
- One measuring tape had been broken on its first outing.
- Space on the field was quite tight when there were two classes.
- A lot of time had to be spent establishing routines.
- Children only needed a small amount of time at each activity before getting bored.
- Worries that the children may throw equipment too far and hit children participating at other activities.

## Running Skills

An outside 'expert' came in to assist with this session. He was an experienced secondary PE teacher who participated in a lot of running events. The session was based on instructional forms of learning and involved the leader presenting the information to the teachers. He provided handouts and explained them. The session was not active but it did provide some new and practical advice. The main message from the session was that children should be encouraged to pace themselves rather than running as fast as they can for short periods of time. He also demonstrated how to hurdle correctly.

### 13.05.03

Although a session had been planned, it was an inset day and the teachers were either busy or had forgotten. I, therefore, went to each teacher individually and handed out the jumping activity sheets and offered help where needed.

### 03.06.03

#### Objectives of session:

- Discuss problems encountered so far.
- Encourage teachers to use their professional knowledge to come up with solutions to their problems.
- Introduce throwing skills.

#### Outcomes of session:

##### Problems discussed:

- Teachers struggling to teach correct throwing skills (but had not had the throwing instruction at this point).
- Lack of time to complete the lesson still an issue.
- Javelin throw too advanced for year 2.
- Not many lessons had been taught because of the rain.



Potential solutions:

- Time issues could be reduced if the class teacher warmed the class up at the end of the previous teacher's lesson. There would be room on the playground for the class to warm up whilst the previous class finished their lesson on the field.
- Adapt some equipment in the school to provide bigger sets – e.g. quoits instead of discus; school's own hurdles used in addition to the ones provided.

Throwing skills

Another outside expert came to assist with this session. She had no experience of teaching in schools but had been an accomplished thrower, particularly javelin and shot. The session took place outside and the teachers were shown how to throw the items correctly and then had the chance to try for themselves, using the provided equipment. They were encouraged to ask questions and their techniques were corrected, where necessary.

**10.06.03**

Objectives of session:

- Reinforce previous week's learning about throwing.
- Brief explanation of jumping handouts (because jumping session missed).
- Discuss warm ups / health and fitness and generate new ideas within the group.

Outcomes of the session:

- Teachers collaboratively generated suggestions and opinions about effective warm ups.
- The warm up activity should be fun but it should also have a focus.
- The warm up and others aspects of health and fitness could be linked to other subjects like PSHE and science
- Although children possibly don't need to warm up, it is a good habit to learn.
- Need to decide whether to focus on health and fitness issues in one lesson or whether to include it less formally each week.

- The warm up should focus on the muscles that will be used.
- Level of understanding could be adapted according to year group. For example, younger children could judge the speed of their hearts and older ones could actually count their heart beats.
- Some children lie about their heart rates as they perceive a high rate to be good
- Get the children to warm each other up in small groups because the children copy what they have been taught in school and at clubs.
- Better to run and then stretch as the muscles are warm before stretching.
- The cool down is often just walking back to the classroom or collecting in the equipment.
- Could do pulse rates etc, inside when it rains rather than just cancelling PE.
- Could use the pacing activities introduced in the running session as a warm up activity.

Other comments:

- When measuring children's performance, the timing and distance measuring is often inaccurate. It may be better to see how far the children can run in a certain time or get the children in teams to measure each other's performance
- The stopwatches provided are too complex for the younger children because they don't understand tenths of seconds and find them confusing.

**01.07.03**

This session was planned to address ideas for athletics challenges but the teachers were all busy and did not turn up to the session so I went to each teacher individually and introduced the ideas, explained the lesson plan and answered any questions. This was the last session. The following week's session was put aside for the teachers to discuss the CPL questionnaire.



## Appendix Q: Diary of Events (School B)

### January 2003

- Discussed the possibility of implementing athletics CPD in the school in the summer term with the PE co-ordinator and the head teacher. The plan at this stage was to use the athletics practices held after school in the summer term as an opportunity for CPD. It was hoped that whilst this would reduce the teachers' free time after school, it would also be useful because it would allow a practical session with the children present.

### March 2003

- Discussed the possibility of supplying the school with equipment and lesson plans to accompany the athletics CPD.
- Explained my plans for school A and discussed how these could be adapted in school B.
- Discussed how the teachers would learn at the athletics club where their role was to teach one activity to rotating groups of children. It was decided that I would take one activity and the teachers would rotate with the children so that they could observe me teaching a particular skill each week.
- Opportunities to assess the collaborative nature of the CPD could occur at year group planning meetings.

30.04.03

#### Objectives of the session:

- Demonstrate some ideas for hurdling activities and demonstrate how to develop a good hurdling technique.
- Answer any questions about the lessons so far.

#### Outcomes from the session:

- Teachers requested handouts to accompany my demonstrations.
- Year 5 teachers invited me to attend their year group planning sessions after athletics club each week.

- All teachers in attendance were able to observe me teaching for about ten minutes. This included different activities with the hurdles and some coaching points.

### 07.05.03

#### Session Objectives:

- Demonstrate some ideas and activities for teaching running
- Answer questions and queries concerning activities and lessons taught so far

#### Session Outcomes:

- Teachers all able to observe and participate but few opportunities for reflection or explanation.
- Children required a lot of attention and so most of my time was devoted to teaching them rather than teaching the teachers.
- The teachers were keen to write notes down and this was hard for them outside on the field.

### 14.05.03

#### Session Objectives:

- Demonstrate throwing skills.
- Answer questions and queries concerning the activities and lessons taught so far.
- Address safety issues.
- Provide ideas for simple ways that children could measure and record their throwing performances.

#### Session Outcomes:

An 'expert' with throwing experience but no teaching experience assisted in this session and demonstrated the correct throwing technique for javelin, discus and shot to the children. The teachers were encouraged to participate and were instructed at the same time as the children. The teachers who were not on duty that particular week still came out and observed the first session and were then able to go back inside and continue with their work whilst the other teachers stayed out and assisted with the rest



of the practice. I encouraged the children to improve their own performance and showed them how to use markers to judge their throws. The importance of safety (everyone throwing at the same time and in the same direction) was emphasised right from the start.

#### 04.06.03

##### Session Objective:

- Demonstrate jumping skills
- Answer questions and queries concerning the activities and lessons taught so far

##### Session Outcomes:

I taught jumping to three groups of children and the teachers accompanying them were able to observe these. Unfortunately, time was short and the last group of teachers did not get to observe all the activities and teaching ideas.

#### 11.06.03

##### Session Objectives:

- Demonstrate warm up activities
- Demonstrate how health and fitness issues can be addressed in a PE lesson
- Answer questions and queries concerning the activities and lessons taught so far

##### Session Outcomes:

The PE co-ordinator who normally leads the session was away this week so I had to take the whole group for one mass warm up. I had planned about 10 minutes of warm up with health and fitness related activities to teach to each rotating group. I had to adapt my plans and teach the group by warming them all up together at the start of the practice. I demonstrated how to help children understand the changes their bodies go through when they exercise and showed the teachers some ways to warm up their classes. The observing teachers were chatting amongst themselves during the warm up and did not really observe or pay attention to what I was doing. Having warmed up

the whole group, we split them into two groups and I took one for hurdling and the other teacher took the others for throwing.

### 18.06.03

#### Session Objectives:

- Demonstrate how children can set up their own athletic challenges
- Answer questions and queries concerning the activities and lessons taught so far
- Illustrate how to encourage children to design their own challenges through questioning

#### Session outcomes:

The activity was designed to encourage children to design and adapt their own athletic challenges. They were given equipment and told to design an activity. After some time for experimentation, I used questioning to focus the children. I asked them to think of a purpose for their game, to think about rules, to decide how to win. As well as encouraging the children to design the challenges, I was able to discuss what I was doing with the teachers. I gave suggestions for extending the activity if time allowed, and encouraged the teachers to work with small groups of children.



## Appendix R: Introduction to CPL

### Tacit knowledge

The key concept behind CPL is that every one of us has a store of tacit knowledge. This is knowledge that is built up through experience and other learning activities. This is knowledge that we do not necessarily realise that we have. Each of us knows something about teaching PE; CPL aims to unlock and share that knowledge.

### CPL is based on learning that is:

- Collaborative;
- Interactive;
- Reflective;
- Active;
- Transferable;
- Situated;
- It also involves problem solving.

CPL is different to more traditional forms of teaching and learning because it is not based on direct teaching alone. It does not involve a knowledge giver and a knowledge receiver. It does not assume that learning is a one-way process.

Many courses are delivered in a traditional way and this can sometimes mean that the learning is non-transferable and out of context. The theory-practice gap means that valuable knowledge is lost somewhere between the course and the classroom. What seems possible on a course without the children, without the confines of the school environment and with the appropriate resources is not always possible in practice.

All teachers know the value of collaborative learning for their own classes but rarely receive the same 'luxuries' themselves.

### Barriers to CPL

- Lack of trust;
- Competition;
- Professionalism;
- Afraid to ask for help;
- Afraid to offer advice.