

AN ANALYSIS OF THE PROFESSIONAL DEVELOPMENT OF
PHYSICAL EDUCATION TEACHERS IN MALTA

by

ANNA MARIA GATT

A thesis submitted to the University of Birmingham for the degree of

MASTER OF RESEARCH

School of Sport, Exercise and Rehabilitation Sciences

College of Life and Environmental Sciences

University of Birmingham

September 2016

UNIVERSITY OF
BIRMINGHAM

University of Birmingham Research Archive

e-theses repository

This unpublished thesis/dissertation is copyright of the author and/or third parties. The intellectual property rights of the author or third parties in respect of this work are as defined by The Copyright Designs and Patents Act 1988 or as modified by any successor legislation.

Any use made of information contained in this thesis/dissertation must be in accordance with that legislation and must be properly acknowledged. Further distribution or reproduction in any format is prohibited without the permission of the copyright holder.

ABSTRACT

In recent years, Continuous Professional Development, or CPD, for teachers has attracted renewed attention in both policy and research. Fundamental questions now deal about 'effective' CPD for teachers. To improve educational policy and practice, understanding the nature and quality of existing CPD opportunities for teachers is of paramount importance. This research focuses on nature, range and perceived effectiveness of the existing CPD provision for Physical Education (PE) teachers in Malta. Data were collected from teachers practising in State, Church and Independent Secondary Schools – a combination of semi-structured interviews and a National PE-CPD survey. Findings indicate that PE teachers in Malta are not engaging in relevant CPD activities (especially given the changes which are occurring in educational policy and practice in this research context). Teachers acknowledge the importance of formal CPD but the findings indicate that it does not match learning preferences. Teachers report the need for more collaborative learning activities, taking place in the workplace, and which result in professional learning that is immediately applicable within the classroom. The value of continuous, collaborative, relevant and active learning was identified by teachers, thus the way forward for the Maltese educational context is to develop structures that create these learning opportunities.

Dedicated to my husband Keith, my children Katrina and Michele,

and to my parents Louis and Faustina

ACKNOWLEDGEMENTS

I would like to thank everyone who has helped and supported me over the last three years. First of all, to my supervisors Dr. Ross Neville and Dr. Kyriaki Makopoulou for introducing me to the area of professional development, and for their ongoing support, advice and belief in me. Thank you to Dr. Ryan Brindle, for his invaluable statistical advice for Chapter 4 and Ms. Louise Bryan, Postgraduate (Research) Administrator at the University of Birmingham, for her untiring support in answering my queries.

I would also like to thank the board at the Malta Sports Scholarships within the Ministry for Education and Employment for believing and financing my study. Special thanks to all PE teachers who took part in this study and whose contribution led to interesting findings. Collection of data would not have been possible if not for the support of the PE Educational Officer, Mr. Kevin Azzopardi and the Head of Department within the Catholic Schools' Secretariat, Ms. Natasha Galea.

Heartfelt thanks go to my Headmaster Mr. George Micallef and the rest of the SMT at the Malta National Sports School for their support and encouragement. Special thanks to my colleagues within the PE Department at school who always willingly replaced me during my study trips to Birmingham. I feel really obliged and thankful!

Surely this study wouldn't have been possible if not for the continuous backing of my family, especially my husband Keith who throughout these last three years, together with our children Katrina and Michele, encouraged me in believing in my abilities. I would also like to thank my parents and my in-laws for their untiring help.

TABLE OF CONTENTS

	Page
Introduction	1
Chapter 1 Literature Review	8
1.1 Introduction – Situating Continuous Professional Development	8
1.2 Continuous Professional Development: A Working Definition	8
1.2.1 ‘Formal’ CPD	10
1.2.2 ‘Informal’ CPD	11
1.2.3 Developing as a professional	14
1.3 International CPD research – Selected Review and Overview	16
1.3.1 International CPD Research – Participation and Preferences	17
1.3.2 Perceptions About and Barriers to CPD Participation	18
1.3.3 The Role and Importance of the School Environment	20
1.3.4 Planning for CPD – Increasing Participation Changing Perceptions	21
1.4 Features of CPD	24
1.4.1 Relevant Content	25
1.4.2 Active Learning	27
1.4.3 Sustained CPD	29
1.4.4 Contextual CPD	30
1.4.5 Coherent and tailored CPD	32
1.4.6 Collective Participation	33
1.4.7 Collaborative CPD	34

1.5	CPD for Physical Education Teachers	36
1.6	Evaluating the Impact of CPD Programmes	38
1.7	Conclusion	42
Chapter 2	The Research Context	45
2.1	Introduction	45
2.2	The Social – Political Context	45
2.3	Education in Malta	46
2.3.1	Compulsory and Post – Secondary Education	47
2.4	The National Curriculum	47
2.4.1	Curriculum Documentation: ‘Creating the Future Together’ (2000)	48
2.4.2	Curriculum Documentation: ‘The National Curriculum Framework’ (2012)	49
2.5	The Learning Outcomes Framework (2015)	50
2.6	The PE Curriculum	50
2.6.1	Learning Outcome Framework: Health and PE (2015)	50
2.6.2	Early and Junior Years	51
2.6.3	Secondary Years	51
2.7	The Learning Continuum for Maltese PE Teachers	52
2.7.1	Initial Teacher Training	52
2.7.2	Teachers’ working conditions in Malta	53
2.8	Continuous Professional Development (CPD) for PE teachers	53
2.9	PE – CPD providers within the Education Department	54
2.9.1	The Educational Officers (EOs)	54
2.9.2	The Heads of Department (HoDs)	55

2.10	CPD for Teachers in Malta – The Way Forward	55
2.11	The gaps in PE – CPD research in Malta	56
Chapter 3	Methodology	58
3.1	Introduction	58
3.2	Paradigms within Educational Research	59
3.2.1	Positivism	60
3.2.2	Post-positivism	61
3.2.3	Critical theory	62
3.2.4	Constructivist theory	63
3.3	Mixed Methods Research	64
3.4	Sampling and participants	65
3.5	Research Design	68
3.5.1	Cross-sectional research design	69
3.6	Phase One: Semi-Structured Interviews with Teachers	70
3.6.1	Developing the Interview Questions	72
3.6.2	The Interview Process	74
3.7	Phase Two: National PE – CPD Survey	75
3.7.1	Designing the Questionnaire	75
3.7.2	Piloting process of the questionnaire	77
3.7.3	Distributing the Questionnaire	77
3.8	Data Analysis	78
3.8.1	Analysing Interviews using an adapted grounded theory	79

3.8.2	Data Analysis – National PE – CPD Survey	82
3.9	Ethical Considerations	83
3.10	Limitations	84
Chapter 4	Findings	85
4.1	Introduction	85
4.2	Survey Findings	85
4.2.1	Part One: You and Your School	86
4.2.2	Part Two: CPD Participation	87
4.2.3	Part Three: Views on CPD Effectiveness	94
4.2.4	Part Four: Effective CPD Experience	97
4.2.5	Part Five: Own Insights	99
4.3	Semi-Structured Interviews	100
4.3.1	Current PE – CPD provision for teachers	101
4.3.1.1	Content of current PE – CPD provision	102
4.3.1.2	Format and delivery of current CPD provision	108
4.3.1.3	The role of experts in CPD	110
4.3.1.4	Follow-up and sustained CPD activities	112
4.3.1.5	Tailoring of PE – CPD activities	117
4.3.2	Teachers’ perceptions about CPD	120
4.3.3	Professional collaboration amongst teachers	125
4.3.3.1	Formal collaboration amongst PE teachers	125
4.3.3.2	Sharing of good practice amongst PE teachers	128
4.3.3.3	Observing and implementing good practice	130

4.3.4	Sources of Knowledge	133
4.3.4.1	Personal dispositions towards learning	133
4.3.4.2	Learning from own students	135
4.3.5	Impact of effective PE – CPD	137
4.4	Conclusion	139
Chapter 5	Discussion	140
5.1	Introduction	140
5.2	The importance of teachers engaging in CPD	141
5.3	Effectiveness of CPD	142
5.3.1	Quantity of CPD	143
5.3.2	Quality of CPD	145
5.4	Teachers' Learning Preferences	147
5.5	Application of findings in local context	150
5.5.1	The Directorate of Education – The Policy Makers	151
5.5.2	The PE – CPD providers – Challenges and Suggestions	153
5.5.3	The Senior Management Team (SMT) and collaboration within the school	155
5.5.4	The PE Department – the niche for professional collaboration	157
5.5.5	NQTs and pre-service teachers on the receiving or on the giving end of professional collaboration?	159
5.6	School-based mentoring in local secondary schools	161
5.7	Conclusion	162
		164

Chapter 6	Conclusion	
6.1	Implications of study	164
6.2	Main findings from the study	165
6.3	Achieving effective professional collaboration	166
6.4	Concluding comments	169

Appendices

Appendix 1: Interview with teachers	172
Appendix 2: Letter to the Head of School	174
Appendix 3: Participation Information Sheets (interviews) and consent form	176
Appendix 4: Survey	178
Appendix 5: Interview with PE Head of Department	187
Appendix 6: Participation Information Sheet (Head of Department) Interview	188
List of References	190

LIST OF DIAGRAMS

	Page
Chapter 1 Literature Review	
Diagram 1 OECD Framework (2007)	31
Diagram 2 Features of Effective CPD	36
Diagram 3 Kirkpatrick's (2006) linear model	39
Diagram 4 Guskey's (2000) linear model	39
Diagram 5 Bennett's (1975) Evaluation model	40
Diagram 6 Hahs-Vaughn et al. (2007) Hybrid Evaluation Model	41
Diagram 7 Classroom Impact Routes to CPD Model (Bennett et al, 2010)	41
Chapter 2 The Research Context	
Diagram 1 Organisational Chart within the Maltese educational context	54

LIST OF TABLES

	Page
Chapter 3 Methodology	
Table 1 Research Timeline	66
Chapter 4 Findings	
Table 1 Effectiveness of CPD activities	95
Table 2 Level of Satisfaction of compulsory CPD activities	96
Table 3 Reasons for effectiveness	98

LIST OF ABBREVIATIONS

CPD – Continuous Professional Development

EO – Educational Officer

EU – European Union

HoD – Head of Department

IMF – International Monetary Fund

INSET – In-Service Training

ITT – Initial Teacher Training

KASA – Knowledge, Attitudes, Skills, Aspirations

LOF – Learning Outcomes Framework

MATC – Mater Admirabilis Training College

MATSEC – Matriculation and Secondary Education Certificate

MCAST – Malta College for Arts, Science and Technology

MTL – Masters in Teaching and Learning

NCF – National Curriculum Framework

NQTs – Newly Qualified Teachers

NSO – National Statistic Office

OECD – Organisation for Economic Cooperation and Development

PD – Professional Development

PE – Physical Education

PIRLS – Progress in International Reading Literacy Study

PISA – Programme for International Student Assessment

PSMC – Public Service Management Code

SDP – School Development Plan

SMT – Senior Management Team

TALIS – Teaching and Learning International Survey

TGfU – Teaching Games for Understanding

TIMSS – Trends in International Mathematics and Science Study

INTRODUCTION

Modern society has been described as an ‘information-economy’ or ‘knowledge-based’ society (Steffens, 2015; Di Nauta et al., 2015). According to Caselli (2010), in fact, there is interrelations today between these two terms, information and knowledge, as society seems increasingly intent on the continuous conversion of available data or information at hand into more concrete knowledge, all with the aim of enhancing growth. This conversion helps both individuals and organisations to achieve progression and/or fulfil longer-term goals (Senge and Kim, 2013); however, it has also become clear that individuals are now also seeking to pursue their own projects based on the preferences of learning (Senge, 1992, 2006), instead of solely taking part in organised or organisational learning activities (Lee, 2014).

One organisational system that prioritises the conversion of information into knowledge is education, and teachers’ learning in particular has been brought to the limelight in the past number of years (Flores, 2015). Teachers are, of course, those organisational actors which have the most important role to play in this act of conversion. In fact, some theoretical perspectives even imply that this is, in essence, the job of the teacher – to bridge the gap between the transmission of mere information to the acquisition of knowledge and experience (Dewey, 2011, 2015; Black and William, 1998; Ball, 2012). As regards teachers’ learning more specifically, there has been a noticeable shift in recent years: from policies which described the education, training and professional development of teachers as something optional and/or over and above what is expected (see e.g. Hoyle, 1980), to our current situation within which career-long professional learning has become a fundamental component of teaching (Day and Sachs, 2004). Teachers today are expected to be reflexive practitioners and

this requires nothing less than their commitment to engaging in meaningful, sustained and challenging career-long learning (Garet et *al.*, 2001).

Fundamental within this process is that teachers engage in continuous professional development, or CPD for short (Day, 1999; Knight, 2002; de Vries et *al.*, 2014). Research in the broad area of CPD for teachers has quite a range, from studies which focus on the appropriate form and content of CPD activities, to studies which focus on measuring the impact of CPD activities on both teaching practice and students' learning (Meirink et *al.*, 2009; Forte and Flores, 2014). More broadly, there is consensus within the international research community that effective CPD is both active and practical, situated and collaborative, sustained and progressive, competency-based, capacity-building and confidence-inducting, dynamic and innovative, all of which enables teachers become reflexive practitioners and thereafter autonomous learners (Desimone, 2011; Main and Pendergast, 2015).

Despite our knowledge of what constitutes effective CPD (Hunzicker, 2011; Desimone and Garet, 2015), and research which provides empirical evidence of actual effective CPD initiatives (Burn and Mutton, 2015; McMurray et *al.*, 2016), critical international research based upon surveys amongst teachers also indicates that there is some discrepancy between what is being provided to teachers in the form of CPD activities and what they feel that they need (Armour and Makopoulou, 2008). As a worst-case scenario, this gap leads to teachers resisting the opportunities that are being presented to them, on account of a lack of relevance for example (Armour et *al.*, 2015). At the same time, there is also evidence that teachers are working entirely autonomously and are finding other perceived effective alternative activities based on their own initiative (Hodkinson and Hodkinson, 2003; Hadar and Brody, 2013). As

research from Johnson et al. (2012) would seem to indicate, this helps promote professional growth and thereafter increase job satisfaction.

Research in CPD related to Physical Education (PE), or PE-CPD, exhibits many of the same features as the wider literature on CPD effectiveness. In short, similar factors hinder meaningful, sustained and challenging career-long learning PE-CPD, and similar reasons exist for the discrepancy when it comes to what is 'ideal' and what is 'real' within the wider provision and delivery of CPD activities (Armour and Makopoulou, 2008, 2012; Casey, 2013; Makopoulou and Armour, 2011).

The study presented in this thesis is based on a research project which was undertaken in Malta, a country which remains relatively under-researched in comparison with neighbouring countries in Europe. As a relatively recent entrant to the EU, and given that the education system is still going through structural changes in order to ensure compliance with broader EU policy and enhance sector-wide professionalization, the Maltese context presents researchers with an ideal opportunity to develop knowledge about CPD activity.

In line with the recognition that teacher learning is best conceived as a continuum which starts during Initial Teacher Training (ITT) and is ongoing across the teacher's career (Conway et al., 2009), there are a wide range of different CPD activities in which Maltese PE teachers take part during their teaching career (Attard Tonna and Calleja, 2009). Most of these activities are recognised as being effective in gathering large populations of teachers together in one location, say, for example at annual or biennial In-Service Training (INSET) events (Bezzina, 2006). However, since these activities are organised mostly by the Directorate of Education, there are

concerns within the educational context in Malta that CPD provision still falls too much under what can only be described as a 'top-down' approach (Attard Tonna and Calleja, 2009). This approach contrasts with the efforts currently being made within the context itself to have more autonomous schools in Malta. The National Curriculum Framework (NCF) (2012), for example, encourages schools to be flexible, not only in management issues but also regarding curriculum implementation and teachers' professional support.

This research is being undertaken at a time when local teachers in Malta are experiencing the implementation of this framework, and explicit and special importance is being given to their professional support. The establishment of the Institute for Education in 2015, for example, aims to provide direct professional support to teachers. The new Learning Outcomes Framework (2015) seeks to aid teachers in choosing the appropriate content according to their students' needs. There is also a new mentoring scheme (Buhagiar & Attard Tonna, 2015) which is in the early stages of implementation and which aims at facilitating a smooth transition for prospective and newly qualified teachers (NQTs) into the range of Maltese schools.

These activities augur well for the future of CPD for Maltese teachers. However, there is also a lack of more specific and structured research that addresses specific PE teachers' needs and their preferred ways of learning. While not an exception within the education context in Malta, the specific competencies of PE teachers and their needs vis-à-vis continuous professional learning development is very much worth questioning now as the subject takes on wider societal expectations regarding health, the reduction of increasing obesity and the preparation of young people for lifelong engagement in sport and physical activity (cf. Armour, 2015; Armour and Chambers,

2014; Penney & Jess 2004). Research undertaken within this context can fill an important gap in relation to both the need for contextual data which can be factored into change management and independent evaluation process within the education sector in Malta, and the need for research on PE-CPD more specifically. To these ends, this research study sets out to answer three interrelated research questions:

- i. What are the professional development opportunities available for PE teachers in Malta?
- ii. In what types of professional development do local PE teachers engage and what do they find effective?
- iii. What are the theories, knowledge and assumptions that underpin providers' practices?

Given the lack of available existing data in this context, the study focuses broadly on the nature, range and perceived efficacy of PE-CPD in the Malta. For reasons that will become apparent over the course of the following chapters, this research study was undertaken in relation to the current CPD opportunities which are available to PE teachers working across the three types of secondary schools in Malta – State Schools, Church Schools and Independent Schools. In order to address these research questions, the following dissertation is organised into the following five chapters:

Chapter 1, the 'Literature Review', seeks to achieve two main goals: first, to provide an overview of the literature on learning in the most general sense and PE research in particular and second, to review the available evidence on CPD, and PE-CPD more specifically. Within this chapter, the features which are now roundly acknowledged as making CPD activities effective for teachers and teaching practice

are made explicit.

Chapter 2, 'The Local Context', presents further contextual information about the Maltese educational system and the current CPD structures which exist therein, as this will help ground the study and help the reader appreciate the ways in which local factors impact on the broader issue here of teacher education, training and development.

Chapter 3, the 'Research Methodology', details the overall approach adopted which was taken in this study to operationalise and thereafter answer the research questions. The chapter described the mixed methods approach which was employed, and the rationale for combining data collection approaches. Matters pertaining to the conduct of the study, how data were collected and analysed, as well as some of the limitations which pertain to the study at hand are discussed at length in this chapter.

Chapter 4, 'Findings and Analysis', provides a comprehensive report of the data. Data from the national PE-CPD survey are reported in the form of simply descriptive statistics while the data collected from semi-structured interviews with PE teachers (n=20) and with the CPD provider are thematically analysed and presented in a manner which illuminates how this research context is to be understood vis-à-vis the features of effective CPD which have been evidenced in the literature.

Chapter 5, 'Discussion and Study Impact', is also divided into two sections. The first section further analyses the themes which have emanated from the research findings and juxtaposes the findings against what has been previously established in international CPD research. The second section addresses the ways in which these findings can be implemented within the Maltese educational system, asking the

following four interrelated questions: (i) who is affected by the findings of this research, and (ii) how are they affected; and (iii) who will benefit from findings of this research, and (iv) how will they benefit? This approach corresponds to the dual character of the research gap outlined above.

The final chapter, 'Conclusions and Directions for Future Research' highlights the main findings from this study and offers recommendations and implications for future PE-CPD provision in Malta. Overall this study attempts to contribute to the PE-CPD literature in two ways. The first is to develop the understanding of teachers' perspectives on what constitutes effective CPD in relation to PE; and second to add new recommendations on how PE-CPD structures can be improved in Malta in view of current changes in the educational system.

CHAPTER 1: LITERATURE REVIEW

20.4 Introduction – Situating Continuous Professional Development

In the introduction, it was observed that modern society is based around the increasing value of knowledge creation activities and that the conversion of information into knowledge supports organisations in progression towards long-term goals and in relation to overall growth. Naturally enough individuals roles, and individuals' own personal learning and professional development, contributes to the direct and prosperity of the organisational as a whole.

In this chapter an overview of the broad theoretical context and assumptions which underpin this research project are given. The chapter has a specific focus on defining the factors which make up what we commonly understand by the term 'continuous professional development', or CPD. In order to do so, it not only describes these main features, but also reviews the international research base which exists on CPD within an education context, and on CPD as it relates to physical education teachers (PE-CPD) in particular. The first task therefore in this chapter is to establish a working definition for CPD which can be used to underpin the research project thereafter.

1.2 Continuous Professional Development: A Working Definition

The importance of CPD to individuals and organisational development is widely recognised (Frost, 2012). However, the research evidence is still too often considered ambiguous on account of variation in the way CPD is defined (Collin et al., 2012). Friedman and Phillips (2004), for example, noted that CPD is defined positively, as a

process of lifelong learning, a means of pursuing and facilitating personal development, but also somewhat negatively in relation to career security, and even in terms of securing clients and / or ensuring that one simply has a competent workforce.

According to Collin *et al.*, (2012: 155), there is a certain 'common denominator' when it comes to defining CPD, i.e. 'learning'. CPD is, in short, all types of professional learning in which teachers engage after their initial teacher training (cf. Craft, 2002). Since learning is itself a complex concept, the use of metaphors to help us understand what this 'engagement' means is also an important component. Pearson *et al.*, (2011), for example use two metaphors, acquisition and participation, through which this professional learning can be classified – i.e. at work, one can acquire knowledge *from others*, and one can also acquire knowledge *from working with others*. The acquisition metaphor treats learning and therefore knowledge as a product, i.e. knowledge is something that one acquires, sometimes passively, whereas the participation metaphor treats it as a process, i.e. learning is an active process that one engages in over time in the context of others. As situated learning theorists like to remind us, learning occurs in complex and social environments and is not separated from the real world (Paretti, 2008). On this view, learning and all types of professional development are recognised as a social accomplishment.

The view adopted in this thesis is that CPD is a relative term, and that it cannot be fully understood without addressing the prevailing social-cultural, historical and political-economic factors which influence the educational system within which professionals operate (Van den Bergh *et al.*, 2015). Now largely taking the place of previous concepts; competency-based understanding of education and training staff development; the concept CPD has itself really emerged in recent years, signalling a

shift away from the simple metaphors based on the acquisition, transfer and retention of knowledge (i.e. container- or product-based metaphors), to understandings which are more participatory, constructive and the process of becoming as a way of learning (participatory- or process-based metaphors).

Based on this distinction, it has become increasingly recognised that there are both 'formal' and 'informal' types of CPD and there have been subsequent debates about which type, or whether a combination, is the most effective (Shanks *et al.*, 2012). In the following sections, we begin our review of the literature on CPD based on a discussion of this distinction between 'formal' and 'informal' CPD.

1.2.1 'Formal' CPD

Traditionally, CPD has been associated with what are known as 'formal' activities, such as in-service, teacher training, or planned staff development, each of which typically involve a subject-expert delivering or transmitting specific information to teachers. According to Malcolm *et al.*, (2003) the formal learning activities which make up CPD are structured around specific pre-determined outcomes established by an external agent. With formal CPD, activities tend to be based on subject-experts delivering the session in activities held outside the workplace with the form and content of the activity designed and delivered by someone other than the professional him- or herself (cf. Fraser *et al.*, 2007). Sometimes, this format is deemed more superior to other forms of learning since it is organised by and within formal institutions which are invariable regarded as lending credibility to the process (Shanks *et al.*, 2012). For example, Friedman and Phillips (2004) also suggest that formal CPD is beneficial for

teachers who lack the motivation to learn on the job since these activities follow a structured, focused and disciplined agenda, and because they are often compulsory and factor into the process punitive measures (cf. Butt and Macnab, 2013).

There are obvious weaknesses and concerns when it comes to formal CPD activities and provision, especially when there is an overreliance on them (Nelson et al., 2006). Boud and Hager (2012) compare formal CPD activities to the national curricula in schools in the way information is pre-packaged and supplied to teachers to be consumed. Researchers also have concerns about the fact that, in a substantial amount of formal CPD, measuring impact is problematic (Friedman and Phillips, 2004; Hunzicker, 2011). For example, at the end of many formal activities, a certificate of attendance is simply given which indicates only physical presence and not whether learning has occurred. In spite of this, Fuller and Unwin (2003) believe that motivated teachers, even though they attend formal activities which might be imposed on them, still move towards people from whom they believe they can learn and receive the support they need. Qualitative research evidence, but has often shown that modelling one's CPD provision entirely on this basis is ineffective in the long-run, as teachers commonly experience difficulties in transferring knowledge from the formal CPD event to their more informal dynamics in their workplace (Billet and Choy, 2011).

1.2.2 'Informal' CPD

Based on the concerns and criticisms we have covered in the previous section, it is not surprising to find that the content and delivery of formal CPD activities is at times described as being divorced from actual practice at the workplace (Boud and

Hager, 2012). This has led to an increased importance being given to learning which occurs at the workplace itself. While formal CPD can occur at the workplace, this type of CPD – which is based on the more routine aspects arising on the basis of professionals interacting with their work environments – is more commonly linked to *informal* and *non-formal* learning (Boud and Hager, 2012). There is a distinction between these two terms: Colley et al., (2002) describe informal learning as *non-intentional* learning which results from daily life activities, whereas *intentional* learning which is not provided by any institution is defined as non-formal learning. For the purposes of this chapter, and because the distinction between these further two terms is not itself unproblematic, in this study the term ‘informal CPD’ will be used to refer to both of these types of learning.

Informal CPD occurs mostly in the workplace both when working with others, working through practical issues, and reflecting upon personal experiences (Eraut, 2004). Previously, it was thought that what made learning ‘informal’ was the only fact that it was ‘non-taught’ (Gorard et al., 1999). However, informal learning activities are themselves multi-modal. Studies related to the learning dispositions and preferences of newly qualified teachers (NQTs), for example, indicate that NQTs value observing other teachers in class, being observed in class and receiving feedback, more than formal activities (Shanks et al., 2012). Teachers also make use of what Eraut (2004) describes as ‘personal learning’ or, more simply stated, what Felstead et al. (2005) refer to as simply ‘teaching yourself’. This emphasises the importance of reflection as an integral part of the informal learning process, which can occur both inside and outside of the classroom. More established teachers, for example, recognise the fact that informal learning can and does often occur during the actual act of teaching in the

classroom, through trial and error, taking risks and feedback from own students. Teaching is itself a form of learning, to use an old cliché.

While there is a greater appreciation of informal CPD in the research literature and in international best practice, there are both positives and potential negatives. Informal CPD can be convenient, relevant and embedded within the workplace, and therefore it can be extremely valuable because it is based on the actual actions and interactions of the professionals in question (Eraut, 2004). At its best, CPD becomes intricately linked to the needs of the workplace and can directly support daily work practices. Professionals can become involved in action research (McNiff, 2013) with workplace learning occurring continuously through self-evaluation, feedback from others and the sharing of knowledge.

There are also difficulties and potential dangers associated with informally acquired knowledge, however. It might simply be based on inaccurate information, based on interactions with unreliable sources, and therefore even potentially even lead to dysfunctional learning lacking any practical workplace value (Marsick and Watkins, 2015). This can be exacerbated when there is no knowledgeable expert to supervise and guide the learner. More generally, the benefits of informal learning are also potential weaknesses. Because informal learning can occur any time and in any situation, it can often lack a connection with specified outcomes and goals. Having no explicit learning objectives might also confuse the learner about whether and what knowledge is actually being acquired, all of which makes it extremely difficult to assess the impact of professional development activities on the subsequent performance (Werquin, 2012).

There is greater recognition today that the question of formal and informal CPD need not be, and should not be, an either-or question. There is a blurring of boundaries between the two at times, as when formal learning opportunities themselves take place within the workplace through structured mentoring, work shadowing or working towards a qualification (Eraut, 2007). As with the definition of CPD more broadly, the relevance, uses and value of formal and informal CPD opportunities and activities is relative to the context. Choosing the appropriate CPD activity is a challenge in itself for teachers, especially when they feel unsure about why they should participate in a particular activity and what the end goal is (Friedman and Phillips, 2004). What is clear is the emerging consensus that it is not advisable to subordinate any one type of activity to the other. Understanding the relative terms of CPD opportunities means recognising the appropriate form that is suitable for the individual teacher at a given point in time, in relation to where they currently work, who they currently work with and for, and what their broader career aspirations are. Such a pragmatic attitude recognises the value of CPD as something personal, tailor-made for each individual professional.

1.2.3 Developing as a professional

It is very difficult to point out the characteristics of professionalism (Kolsaker, 2008). Collin *et al.*, (2012) that professional can mean anyone who is paid to do a job while a narrower definition describes professionals as people who deliver services to others. Evans (2011) criticises interpretations that describe professionalism as something externally imposed and following norms set by external agencies. In her

2008 definition, Evans states that professionalism is not something that is merited, but it is a way of being within a working context. To paraphrase the message of Evan's claims – having a job does not automatically make you a professional. Instead, Evans (2011) identifies three components of what it means to be a professional: (i) the behavioural component, which relates to what one actually does at work; (ii) the attitudinal component, which relates to the values and motivation which underpin the work that is being done; and (iii) the intellectual component, which relates to the knowledge and understanding that one possesses. Having knowledge and knowing how to implement it, is not enough to develop as professionals, if there is no understanding of who we are (Dall'Alba, 2009). An integral part of becoming a professional is to engage in a process of continuous change (Webster-Wright, 2006); with our past experiences opening up a number of options from which we have to choose and which will shape what we become in the future. Throughout this process, we are influenced by various factors such as the environment and the social structures around us. Dall'Alba (2009) considers these influences as either the opportunities or the challenges that shape the process of becoming.

Boud and Hager (2012) interplay with the term 'development', as a process of becoming. Professionals need to work on developing their own capacities not only in relation to their own self but also in relation to what is happening in their professional context. In certain contexts, including schools, professionals have to behave according to external environmental, regulatory or legislative changes which will eventually influence their development. When professionals are faced with irrelevant knowledge, which mismatches their attitude and approach, development fails to occur (Evans, 2011)

Opportunities for CPD available for teachers are considered inadequate (Borko, 2004) not only because there are not enough but because they are not always geared towards the teachers' and the school's current needs. Evans (2011) states that research on teachers' professional development has focused only on behavioural aspects of development which are affected by externally-imposed reforms and policies. Professional development seen at a 'macro level', cannot be effective, if there is no thorough understanding of the way teachers learn; 'micro-level development' (Evans 2011: 864). CPD activities need to align to the behavioural, the attitude and the intellectual components of the individual at the time of the learning activity. This reshaping of CPD requires research in both the understanding of what is professional development and how the individual learns.

Before presenting where development can occur in relation to the research evidence which exists on effective and impactful CPD, the following section gives the reader an overview of the international research which exists on the nature of range of CPD which is undertaken by teachers, and its perceived value.

1.3 International CPD Research – Selected Review and Overview

The widespread consensus about the value of CPD, and the subsequent investments in teachers' CPD initiative has led, inevitably, to large body of empirical research which seeks to identify its impact and establish evidence-based guidelines both for practice and for policy-making (Wayne et al., 2008). The most commonly used research instrument for conducting CPD research has been the participant-respondent survey, which samples a cross-section of the population at a given point in time (Garet et al.,

2001). Cross-sectional survey research is routinely administered on an international and national scale, and studies typically focus on establishing a snapshot of teachers' uptake, engagement, and reasons for participating in professional activities.

1.3.1 International CPD Research – Participation and Preferences

The OECD's Teaching and Learning International Survey, or TALIS, is an international study about teachers, teaching and learning environments. The aim of TALIS is to support policies related to education and teacher training and is fundamentally committed to understanding teachers and the nature of teaching as a lifelong profession. TALIS is based on the assumption that CPD is an effective way to establish and maintain standards within education, address performance issues and opportunities, and support increased effectiveness when it comes to enhancing pupil learning and educational attainment. Some of the findings of the TALIS 2013 survey are interesting and instructive as a starting point for our assessment of international research on CPD.

Broadly, the survey reports that 88% of participating teachers engaged in at least one CPD activity in a year. The survey indicates that females (89%) participate slightly more than males (87%). In relation to the type of schools surveyed, TALIS indicates that teachers working in public schools seek to participate in CPD activities more often than do teachers teaching in private schools. This can be related to the fact that public school subsidies are covered by the State in most, if not all, instances. Apart from participation rate across key demographic indicators, TALIS also reports on type of CPD activities in which teachers engage. Consistent with data which are collected

on a national basis, or more regionally in smaller studies, TALIS reports that courses and workshops still remain the most common CPD activities in which teachers engage (71%), with conferences and seminars (44%) and broad teachers' networks (37%) also having high rates of participation (TALIS, 2013). Where teachers are invited to evaluate specific types of CPD over and above simply acknowledging their participation, it is reported that the least popular types of CPD are qualification programmes (18%) and observation visits to public organisations and NGOs (13%). Interestingly, these are opportunities which Stoll et al., (2012) consider effective as a way of challenging, supporting and stimulating new thinking.

Similar patterns appears in Opfer and Pedder's (2010) State of the Nation research study regarding Schools and CPD in England. The research study observed that teachers in England are, on the whole, not offered a wide range of CPD activities, with in-school workshops still being the most attended type of CPD (85%), followed by out-of-school workshops (64%) and mentoring (57%). In recognition of the value of CPD, surveyed teachers reported that they believe CPD helps improve their teaching (63%) and that it is a legitimate way to achieve career aspirations (52%). Other respondents to the survey acknowledged that they only attend CPD activities because they are connected to performance measurement reviews (62%), while others simply only attend compulsory activities (72%).

1.3.2 Perceptions About and Barriers to CPD Participation

In contrast with the manner of presentation in TALIS, Opfer and Pedder's study went beyond a simple descriptive analysis of participation rates and identified common

themes or issues related to CPD in different schools in England. This was done with the intention of providing direction for future policy and CPD programmes development. According to Opfer and Pedder's analysis, teachers in England tend to view CPD as something personal, and tended to not recognise or value collective understandings of and opportunities for CPD. For example, the least attended CPD activities were teacher study groups (16%), followed by other external activities that would require teachers to work in the context of (if not directly with) other professionals (e.g. non-university accredited courses (16%) and further qualification university courses (11%). Teachers who took part in this study tended to understand CPD opportunities largely in relation to needs based on a certain amount of years of experience, or in the context of specific career stages, with teachers making the assumption that it is typically those in (or in pursuit of) leadership roles that get most of the opportunities. Perceptions about CPD in general, therefore, appear to impact negatively on teachers perceptions about CPD in relation to their own particular situation.

Other barriers noted include the situation that typically presents itself to teachers working in low-performing schools - i.e. where CPD was prescribed, somewhat punitively, when it was felt that teachers' competencies were not presently up to the task of delivering a high quality learning experience. Teachers teaching in high-achieving schools, in comparison, were observed as being much more autonomous about their choice of CPD. Further barriers noted by Opfer and Pedder included logistical problems, such as cover- or supply-teaching resources to replace teachers who plan to attend a CPD programme. Financial restrictions, and overall school development needs, were also observed as being given priority over individual

teachers' needs, as were value-for-money considerations based on prior experience (e.g. irrelevant content and / or poor delivery during formal CPD activities).

1.3.3 The Role and Importance of the School Environment

These final remarks invite consideration on how rates of participation, types of activities offered and opportunities undertaken are surely influenced by the support teachers receive. Evidence for the effect of this broader environmental influence is now well established in the international literature of CPD (Zwart, 2007; Earl and Katz, 2006). The research evidence indicates that support is often either directly financial, i.e. direct payment for teachers to attend courses or workshops is the most common, or it is related to organisational factors such as the other non-directly financial resources, i.e. such as provisions being made within reduced teaching loads for CPD, or days off to attend CPD activities outside of school, and / or even periods of study leave. Apart from addressing these practical needs, studies also indicate that teachers, especially NQTs, value the more routine and easily accessible support within the school by leaders and / or more senior staff which can address their emotional needs (Hobson *et al.*, 2007). The literature describes these leaders as instructional leaders (Hoerr, 2008; Walker and Downey, 2012). Principals are now increasingly expected to make provisions for and integrate CPD into their respective School Development Plans (SDP), not only supporting opportunities which exist for development outside of the school, but creating intellectual, emotional and social space within the workplace for teachers to share in their professional learning with others (Darling-Hammond and Richardson, 2009).

Evidence for this type of practice at an international level is given in TALIS (2013), which indicates that instructional leaders (Hoerr, 2008) might succeed in creating a positive school climate when they enable teachers to collaborate (64%). What the research evidence seems to indicate in sum, therefore, is that teachers' backgrounds, beliefs and attitudes towards learning – i.e. psychological factors (Zwart, 2007; Earl and Katz, 2006) – and the school context and organisation – i.e. organisational factors (Zwart, 2007; Earl and Katz, 2006) – are interrelated variables (TALIS 2008). This complementary relationship between what individuals put into their own development and what they receive out of the school's organisation leads to an increased CPD participation and better CPD efficacy.

1.3.4 Planning for CPD – Increasing Participation, Changing Perceptions

Another important component of Opfer and Pedder's 'State of the Nation' study was their contribution to our understanding of the ways in which schools in England valued CPD. Almost one third of schools in England, for example, self-reported having a strategic plan for CPD (Opfer and Pedder, 2010) but not all teachers involved were aware of the content of this plan. In the majority of schools, CPD was mapped against the school's broader improvement plan and to the end of achieving or compliance with national educational priorities.

There is variation in this internationally, however. Studies show that, in other countries, strategic planning for the professional development of teachers is moving beyond the mere alignment with external environmental factors, such as national priorities.

Collinson et al., (2009), for example, analysed professional development for teachers in various countries through three emerging trends; glocalisation, mentoring and rethinking teacher evaluation; that seem to have emerged due to the increased importance given to CPD and lifelong learning in schools. The countries included in this study offer a diverse range, both geographically and culturally: Taiwan, Latvia, Ireland, Scotland, Australia and the US. In each of these countries, Collinson et al. (2009), observed that, while universal educational concepts are being implemented, they are being modified to accommodate key considerations which relate to the local context. In line with the broader sociological research in this area, Collinson et al., (2009:5) also refer to this as 'glocalisation', a combination of the words 'globalisation' and 'local', which invites consideration about how global processes (i.e. in this case global educational concepts) become naturalised and thereafter embedded within local contexts. Local contexts, in other words, use and apply global educational concepts in a more dynamic way than is commonly assumed, and in a way that is relevant to and ensures impact within what are geographical and cultural variable conditions (cf. Robertson, 2012; 2014).

These dynamics of glocalisation were very much evident in Latvia, for example, an-ex USSR country that, in last twenty years, has shifted from a Soviet control based on communist principles, i.e. a centrally-controlled educational system which prohibited relative autonomy, to becoming a member of the European Union. Naturally, Latvian teachers experienced many difficulties as a consequence of both ideological and systemic change, and in a very short time span, with no structured planning on a national basis which resulted in a lack of preparation on the part of teachers. The 2009 study shows some indication that there can be difficulties

experienced in transition period, and perhaps even that 'less is more' sometimes when it comes to CPD, as Latvian teachers were encouraged to begin to take part in qualification programmes, mentoring activities, communities of practice and to make better use of critical friends to receive feedback.

The experience of teachers in Taiwan was much smoother, and more positive, since it was observed that CPD is part of the collective agreements and is therefore reflected in teachers' contracts (Collinson *et al.*, 2009). Taiwanese teachers attend seminars and workshops which amount to a minimum of 18 'working hours' of CPD per scholastic year. There is, in short, 'space' and 'time' for CPD in this context. Teachers were also reported as having to engage in and make use of more informal professional dialogues, during which shared and broader school matters (e.g. the curriculum) could be addressed. Even in Scotland, teachers, since 2001, have to attend a number of hours of CPD per year (35 hours) while at the same time presenting evidence of professional action and reflection.

In Ireland, continuous professional development at all stages of a teachers' career is now a national policy priority (Conway, 2013). An induction pilot project during which NQTs received support from specifically trained mentors resulted very effective. All stakeholders in education, irrespective of years of experience, are now being invited to participate in policy development prior to implementation. Results show that these initiatives led to Irish teachers viewing CPD as a personal journey (McMillan *et al.*, 2016). The analysis of these emerging trends in CPD shows what formalised importance is being given to CPD within developed countries; with CPD considered as a formal component of the teachers' role, responsibilities and professional entitlements.

A latent variable within each of these studies is the impact of CPD participation on teachers' knowledge, work practices, educational standards, and students' performance. In short, by focusing mostly on CPD participation and teachers' experiences, less attention is being paid to whether and how this is effective and impactful. Given the scarcity of available and robust research evidence on CPD effectiveness, the gap between CPD participation and its actual impact on teaching and learning has been described as something of a 'black box' (Timperley *et al.*, 2007: xxiii; cf. Black and William, 1998) in CPD research. The features of effective CPD, and models relating to / the manner in which CPD is commonly evaluated in educational research are discussed in the following two sections.

1.4 Features of CPD

While there is some contention about the actual features of effective CPD in a general sense, there is at least some consensus that education-based professional development programmes are effective when they (i) impact upon the pedagogy of teachers and, subsequently, (ii) when they lead to change in classroom practice (Bennett *et al.*, 2010). Effective CPD, in short, needs to be assessed on the basis of whether and how it affects both the beliefs *and* practices of teachers, both of which are necessary for change to occur.

In relation to the first point, for example, Garet *et al.* (2001) identified three core features and three structural features of CPD programmes that can lead to improvement in pedagogy, and therefore be effective at teachers', schools' and students' level. Core features deal with (i) relevance of content; (ii) active learning and

(iii) coherence while structural features relate to (i) collective participation; (ii) collaboration and (iii) sustainability. Penuel et al. (2007) add also the effect of the implementation context which stresses the importance of having CPD programmes which address teachers' goals and needs and are relevant to what is happening in the workplace. This shows a consensus on which features lead to effective CPD in regards to improved teachers' knowledge and pedagogy.

1.4.1 Relevant content

Naturally, the content of CPD programmes and activities is recognised as one of the core features of effective CPD (Garet et al., 2001). In line with the focus established above, research studies have tended to focus on content of CPD activities in a dual sense: (i) regarding the teachers' knowledge of the subject (i.e. actual content); and (ii) regarding application of teaching strategies (i.e. pedagogy for delivery) (Penuel et al., 2007; Garet et al., 2001; Cohen and Hill, 2000). Yet other studies apply a different rubric which relates to (i) enhancing our understanding of teachers' knowledge of subject content and, comparatively (ii) enhancing our understanding of how students are presented with, take up and thereafter learn this content. Generally speaking, international research studies confirm that CPD activities which focus on the content in these broad terms typically result in positive observed effects on knowledge and skills in the areas of both teaching and learning, especially where the content presented is new and relevant to the teachers' actual development needs (Bennett et al., 2010; Penuel et al., 2007; Garet et al., 2001). There is some variation, however, in where this development is occurring, i.e. within the context of the

teacher or in relation to the broader school environment, and what is preferable from the perspective of teachers.

The TALIS (2013) survey, for example, indicates that 73% of teachers find CPD activities effective when they focus on enhancing their knowledge and understanding of new subject content. On the other hand, 68% find effective, activities which are linked to developing their own pedagogical competencies and enhancing their knowledge about the ways in which students learn. In other words, when it comes to effective CPD, teachers appear to give equal importance to both the content and form of CPD activities; or, more specifically, they find both the content and manner in which this content can be delivered to students as fundamental components of effective CPD. Ownership and relevance considerations are also important when it comes to assessing the content of CPD. Within the TALIS report, teachers also indicated that, for a CPD activity to leave an impact, their needs, starting-points, opinions and preferences should also be taken in consideration when CPD providers are preparing the content to be presented in the learning activity. For example, as regards tailoring content, Stoll et al. (2012) advise that CPD providers need to work collaboratively with teachers in order to analyse and define what both the teachers' and his/her students' needs are, as it is this trio of teacher, learning and content which makes up the pedagogical context. A collaborative approach aims at the identification of aspects across the pedagogical encounter where development is needed, and therefore avoids grounding CPD *opportunities* in *assumptions* about what teachers should learn or where their knowledge is lacking (Timperley et al., 2008).

In terms of other comprehensive research studies, findings from Bennett et al.'s (2010) work (n=700 teachers) indicate that CPD content which is externally-imposed

and/or which is related to new subject knowledge has the majority of the impact when it comes to standards and educational achievement in the classroom. There is, in other words, evidence to suggest that the effective and impactful content of CPD, i.e. 'what teachers need to know', needs to strike a balance between internal and external environmental considerations. Confirmation of these findings are given in other international studies (e.g., TALIS, 2013; Pedder et al., 2010). However, there is also some evidence to suggest, more specifically, that teachers prefer CPD content that is more directly related to their own personal development as opposed to factors which relate to overall school-level improvement. When it comes to the content of CPD activities, therefore, the research suggests that there needs to be a balance, and that sometimes there can be tension, between 'what teachers need to know' and 'what they want to know' (Armour et al., 2015; Sugrue and Mertkan, 2016).

1.4.2 Active Learning

That considerations about ownership, needs and preferences bear heavily the professional development of teachers is also borne out in other features of effective CPD. There is a strong evidence base, for example, mainly drawing upon qualitative and descriptive methodologies, which indicates that CPD is more likely to be effective if and when teachers have the opportunity to actively engage in the learning process (Bennett et al., 2010). To put it simply – the 'how?' of CPD activities is also important to consider in addition to the 'what?'

Research confirms that being active across the CPD process is crucial, and in certain studies has been shown to be a predictor of job performance (Bakker et al.,

2012). Activities designed in such a manner can also contribute to effective CPD on the basis of how they attract individuals who are simply more motivated to learn from the beginning (Simmering et al., 2003), who value being in control over the learning process (Bell and Kozlowski, 2008), and who value the feeling of mastery and self-efficacy which can result from this engagement (Taris et al., 2003).

Actual activities which promote learning in this way within the CPD process include observations which are then sustained by feedback and reflection (Garet et al., 2001), planning and applying new content in class (Penuel et al., 2007) and reviewing students' work with others (Ingvarson et al., 2005). These activities lead to the wrong idea that active learning is a synonym for informal types of CPD (Penuel et al., 2007). However, active learning can also be applied effectively in traditional activities too (Garet et al., 2001). For, example if a formal CPD activity which involves the *transmission* of new knowledge involves teachers throughout (i.e. feeding into planning and preparation phases, providing input and engaging in questioning and other class participation activities during the session, and in terms contributions made to post-session evaluation and feedback).

International research reports indicate that, although empirical research provides evidence of efficacy and therefore by implication stresses the importance of active learning to practitioners, such activities are still not widely available for teachers. Again, from the TALIS (2013) report, findings indicate that the uptake and availability of active learning opportunities is low in comparison to more formal types of CPD (e.g. less than one-fifth of teachers surveyed report that they have engage in observing other teachers' practice, while less than half of those surveyed engage routinely in collaborative research). Less than one-third of participants took part in mentoring

activities which were structured and monitored by the school's administration. Similar results vis-à-vis active learning can be gleaned from Pedder *et al.* (2010), where it was found that while 67% of teachers attended formal lectures as a form of CPD, only 6% participated in more active forms such as lesson demonstrations with the opportunity for subsequent feedback.

1.4.3 Sustained CPD

There is compelling evidence to suggest that the duration of the CPD opportunity is an important factor. This makes sense, given the strength and wealth of the evidence which exists in general education about the relationship between time on task and the achievement of learning outcomes (Adey *et al.*, 2004; Day and Leith, 2007). In relation to CPD more particularly, programmes of long duration were perceived by teachers to have a greater impact on their practices when they included active learning opportunities and content was coherent (Roesken-Winter *et al.*, 2015; Elliot and Campbell, 2015). Even though qualitative studies support the widely-held view of practitioners that one-off CPD programmes have limited (if any) impact on teachers' and students' knowledge and performance, and on the whole schooling community (Nicolaidou, M. and Petridou, A. 2011; Stoll *et al.*, 2012), research shows that CPD activities still follow the traditional format as regards duration, and are typically delivered in a one-off period of less than a week (Opfer and Pedder, 2011). This, in comparison to programs of longer duration create what Penuel *et al.* (2007: 929) refer to as 'investigative cultures', which are sustained over time, and require constant monitoring and continuous feedback mechanisms in order to be effective.

In terms of the concrete research evidence, there is still little agreement about the ideal number of hours or days that a CPD activity should entail in order to guarantee a degree of effectiveness. Caena (2011) suggest a 'considerable duration' while Ingvarson et al. (2005) suggest that CPD providers must think about duration as the total number of hours spent in contact with the learners and the time span over which the activity is spread. Other researchers suggest a tentative number of hours. In one study of nine different CPD activities, for example, Yoon et al. (2007) observed that, in the six activities which were of more than 14 hours duration, there was a positive and significant effect on students' achievement. Ingvarson et al. (2005), in their analysis of four Australian CPD programmes, point out that a longer CPD duration helps the providers get to know their learners more and thus be able to create more relevant and coherent opportunities for them.

1.4.4 Contextual CPD

CPD content, and structured activities which are being sustained over time, also need to be presented to teachers in a manner that reflect their roles within the school, and the needs of the school in order to be effective (Bennett et al., 2010). Simply stated, effective CPD in the long-run is context-dependent – activities need to be effective within a certain place, in relation to a certain group of associated individuals, at a certain time. For simplicity, the OECD framework (2007) (diagram 1) divides this notion of 'context' up into two environmental components: (i) the global educational policies and discourses which surround the teacher and teaching practice more generally (i.e. external environmental considerations); and (ii) the more local factors

pertaining to the structure and organisation of their respective school, and within which they work (i.e. internal considerations). When planning a programme, CPD providers need to consider both contexts together with the demands of the programme and how these demands fit the teachers' contexts (Penuel et al., 2007).

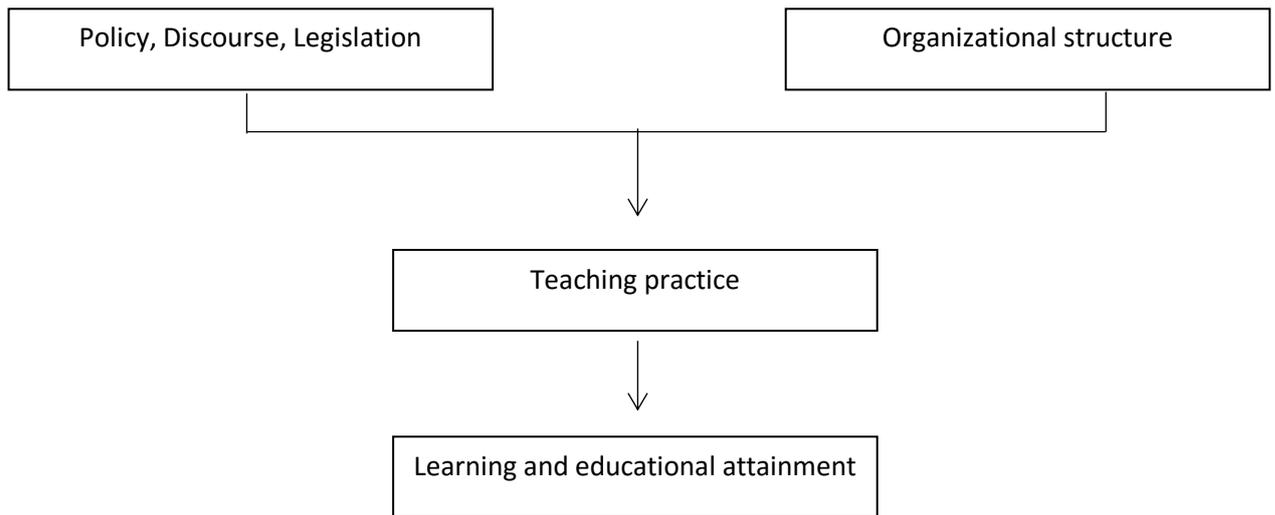


Diagram 1: The OECD Framework (2007)

Penuel et al. (2007) move a step forward and consider also the support and barriers teachers face when following a CPD programme, both from within the school and from external structures. A strong supportive CPD structure within the school encourages teachers to engage in the diverse CPD opportunities provided. In the case of centralised structures though, bureaucracy-related threats imposed from the external structures, hinder the participation of teachers in CPD. Such barriers (e.g. intense curricula, low budgets, lack of relevant opportunities) can be eliminated if both the CPD providers and the SMTs in the schools believe in the benefits of CPD in relation to teacher development and students' achievement. This support is considered vital for change (Ingvarson et al., 2005). After carefully analysing the whole context,

providers should start planning their structured CPD activity, in relation to the context of the learners, their needs and their preferred ways of learning.

1.4.5 Coherent and tailored CPD

The type of content and the manner in which activities are presented during a CPD programme also need to be coherent with teachers' and students' needs, preference and goals for learning (Roesken-Winter et al., 2015; Opfer and Pedder, 2011). As one obvious example, CPD activities which are deemed to be effective will need to be aligned with the school setting and the curriculum under which the teacher works (Opfer and Pedder, 2011; Penuel et al., 2007). CPD providers need to first be aware of what knowledge, beliefs and practices do the learners possess (Pedder and Opfer, 2013), and then present CPD activities that invite teachers to question their previously acquired knowledge while at the same time productively construct something new. Wheatley (2002) describes the gap which is created between the teachers' personal expectations and the sense of self-efficacy when implementing new knowledge in class, as dissonance. The process of conceptual dissonance is described as taking place in three steps (Timperley et al., 2007). First content and activities presented should help teachers cue and retrieve previously acquired knowledge which is either consolidated or examined. Second, new information that is presented, is either accepted or rejected. Then, after this whole process, new knowledge, values and beliefs are reconstructed. The more coherent the content presented is, the more likely it is for teachers to adopt and adapt the innovative knowledge (Postholm, 2012). This conforms to Dewey's (1958) statement about how

current learning experiences influence how humans learn in subsequent experiences. Armour and Makopoulou (2012) describe the learning process in a CPD activity as a dynamic extension of what teachers already know and what new knowledge is there to be known. CPD providers need to keep coherence in mind when planning CPD activities, thus in order to be effective, CPD must allow for different starting points and different learning abilities (Stoll et al., 2012) and not present the same activity for all.

Weston (2015) criticizes what he calls a 'one-size-fits-no-one' CPD approach which is presenting teachers with generic and superficial knowledge that is not coherent to their context and is not leaving any impact. CPD content must be tailored to teachers' needs in a way that it creates a connection between a learning experience and the teacher's daily responsibilities (Hunzicker, 2010). Livingston (2012) expands this notion of tailored CPD and highlights the necessity that content must be tailored also to the learning preferences of teachers. Ironically, worldwide teaching and learning policies emphasise the importance of a pedagogy that matches the individual student's learning preference, but this is not the case when it concerns a teacher's learning preference in CPD activities.

1.4.6 Collective Participation

Roesken-Winter et al. (2015) emphasize the effectiveness of collective participation when teachers from the same school, department or level take part in the same professional development activity. Apart from being logistically convenient to organise one CPD activity for all the teachers within the same school, collective participation enhances coherence and active learning; features which are both

associated with an improvement in teachers' knowledge, skill and classroom practice (Birman et al., 2000). Having teachers working together towards one aim during a common CPD activity will reduce the effects of dissonance which is usually linked to top-down types of CPD. In fact, studies identify the benefits of collective participation both if used during a formal CPD activity, when policies and / or reforms are being introduced (Penuel et al., 2007) or during informal activities.

This collective participation can eventually lead to the development of a shared professional culture within the school, with teachers finding it easier to reinforce their commitment towards their school's development and to discuss common issues related to their everyday practice in class (Garet et al., 2001; Birman et al., 2000). This can then be extended to other issues and to other contexts, especially when teachers move from one school to another and carry with them this good practice. Sharing of good practice will help eliminate all signs of dissonance, especially if teachers engage in a collaboration aimed at achieving previously undefined goals.

1.4.7 Collaborative CPD

Coherence of CPD activities with the broader school environment in which learning intends to be embedded was highlighted in the previous section as a core consideration for efficacy and impact. Within this, the role that the School Management Team or SMT plays in the effectiveness of CPD for teachers has also been widely researched (Fisher and Carlyon, 2015; Bendikson et al., 2012). This especially concerning the creation of an environment that encourages collaborative learning (Poulos et al., 2014; Netolicky, 2016). For example, nowadays, SMTs are encouraged

to be *instructional leaders* (Robinson et al., 2008; Leithwood and Azah, 2016) who are tasked with the creation of conditions which make possible, where possible, optimal teaching and learning.

Within their schools, instructional leaders encourage teachers to take an active role by sharing successful teaching practices, engaging in critical conversations and share leadership roles (Carroll et al., 2010; Vescio et al., 2008). This powerful strategy to improve teaching and learning (Barber and Mourshed, 2009; Fullan, 2010) has been identified as an activity responsive to students' needs and outcomes (Timperley and Alton-Lee, 2008; Opfer et al., 2011). When teachers, through their collaboration, identify pedagogies and practices that have a direct positive impact on students, then a direct connection between teachers' learning and improved students' outcomes is created. The latter finding from a study by Bolden et al. (2014) amongst Canadian teachers is further consolidated by how teachers confirm that students are aware and feel the collaborative culture amongst their teachers, and end up adopting it themselves with their peers. A collaborative culture has its own challenges too caused by the large variations in group interactions and in the level of commitment shown by the different teachers (Barron, 2000). It is only through an interaction of interpersonal factors (i.e. motivation and commitment from individuals) and structural factors (i.e. support from SMTs) (Van den Bossche et al., 2006) that collaboration in schools can become an on-going learning experience for all involved.

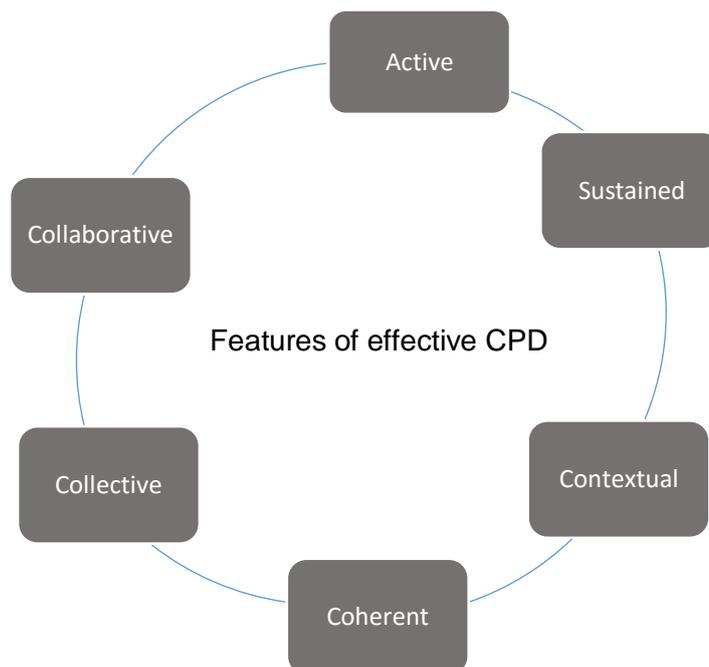


Diagram 2: Features of Effective CPD

1.5 CPD for Physical Education (PE) teachers

The importance given to CPD extends also to PE although research related to PE-CPD is still limited (Armour, 2006; Armour and Makopoulou, 2012). Findings related to CPD and PE are very similar to findings related to general CPD for teachers. PE teachers have similar CPD profiles as other teachers. Armour (2006) comments that the gap which exists between what is available and the teachers' aspirations is resulting in teachers who are resisting and rejecting learning outcomes which others plan for them. PE teachers consider CPD as worthy but current PE-CPD provision lacks coherence and relevance (Armour et al., 2015; Armour and Yelling, 2004). The increased importance given to school-based CPD is seen as a positive move by PE teachers, but at times they feel that the nature of the subject marginalises them from other teachers (Armour, 2006).

Contemporary PE is considered as a dynamic concept (Armour et al., 2015). PE contributes to learning across a set of interrelated domains: (i) physical, (ii) lifestyle, (iii) affective, (iv) social and (v) cognitive (Bailey, 2006). This places PE in a unique spectrum with PE teachers having the responsibility of fulfilling not only the aims of the PE curriculum, but also the aims of national outcomes which nowadays link PE to the global health challenge (i.e. the engagement of the population in lifelong physical activity). PE teachers are aware of the main outcomes for PE. Armour and Yelling (2004), in a study related to PE teachers' CPD profiles have listed the three main outcomes of PE as identified by teachers: (i) health, fitness and lifelong activity, (ii) competence, knowledge and understanding of sport and (iii) elements of personal, social and emotional education. PE-CPD provision focuses mostly on the 'competence, knowledge and understanding of sport' outcome while the other outcomes, which are considered as national agendas, fail to feature in current CPD activities (Armour and Yelling, 2004).

In order to be equipped to fulfil these outcomes, PE teachers need CPD provisions which match the dynamism of the subject. Armour et al. (2015) emphasise that in order to align to these changes, PE-CPD has to be ongoing in order to have PE teachers continuously growing in their profession. Dewey (1916: 38) described this as 'plasticity' with teachers recalling previous experiences in order to help them construct new ones. This can be described as a healthy tension between what is interesting, what is certain and what is possible in relation to the teachers' own contexts and students' needs.

Based on different studies and on the analysis of features of effective CPD for teachers, the core focus for PE-CPD to be effective can be summarized in three main

features: (i) CPD which is contextualised and embedded; (ii) dynamic ways of learning in order to match the broad pedagogical challenges of PE and (iii) on-going in order to keep on enhancing teachers' professional growth. In order to confirm effectiveness, continuous follow-up and evaluation of impact should be carried out. Evaluation should be carried out in relation to impact on the teacher and the way new knowledge is implemented successfully in class, impact on the way schools change and impact on students' learning outcomes (Guskey, 2000).

1.6 Evaluating the Impact of CPD programmes

The effectiveness of a CPD programme is naturally enough measured by whether or not it has an influence on developing new knowledge and / or the skills of programme participants. Further assessments of programme effectiveness in education typically extend to whether and how teachers have used this information and skills to make changes to their work practices, and whether or not this has been translated into improvements in educational standards and students' learning (Desimone, 2009).

In the literature there are various models which CPD providers can utilise to measure and evaluate impact of their CPD programmes. Kirkpatrick and Kirkpatrick (2006) propose a linear model in relation to how CPD impacts learning in four levels (diagram below). The first two levels: (i) the participants' reaction to content, process and context of the programme and (ii) the learning that actually occurs; are short-term evaluation measures which can be analysed immediately after the completion of the CPD activity (Grohmann and Kauffeld, 2013). Evaluation of a CPD activity must be on-going and long-term impact must be measured. Kirkpatrick's four levels linear

model suggests evaluating (iii) the degree to which the participants apply their new knowledge and skills and (iv) the impact on learning outcomes.

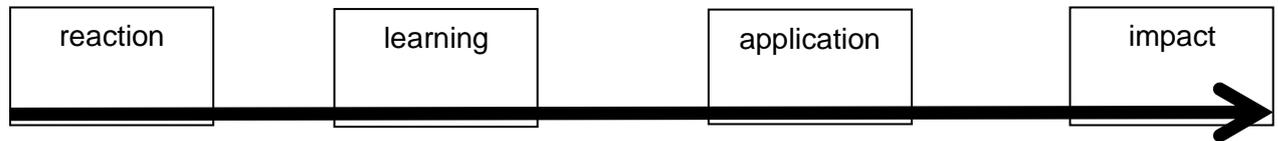


Diagram 3: Kirkpatrick's (2006) linear model

Guskey's (2000) work, builds upon Kirkpatrick's model and between the short-term and long-term evaluation measures, adds another level of evaluation; (iii) the support offered from the school. Guskey's model is linear in its approach (diagram below) to assessment, with each level successive and interrelated to the one above and / or below (King, 2014).

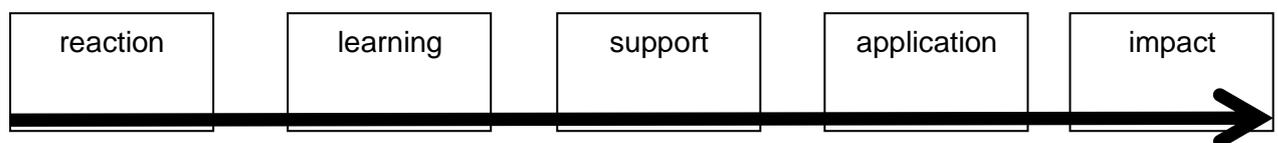


Diagram 4: Guskey's (2000) linear model

The literature confirms that other studies have used and adapted this linear model. Bennett's (1975) model is similar to Guskey's and Kirkpatrick's but instead of being linear, it is presented as a seven step hierarchy (see diagram). A main difference from the previously presented models is that Bennett's model evaluates also the pre-planning phase of a CPD activity. This is represented in the first three steps which evaluate; (i) resources inputted by providers, (ii) type of activities organised, and (iii) the population for which the CPD activity will be organised. The remaining four steps follow Guskey's and Kirkpatrick's model in relation to evaluating (iv) reaction of participants, (v) change in knowledge, attitudes, skills and aspirations (KASA), (vi)

changes in practice and (vii) ultimate impact of programme on teachers and students. This model applies mostly to CPD providers in that they should understand that evaluation must be considered as from the designing and planning phase of a CPD programme, and not only as an after-programme phase (Muijs and Lindsay, 2008).

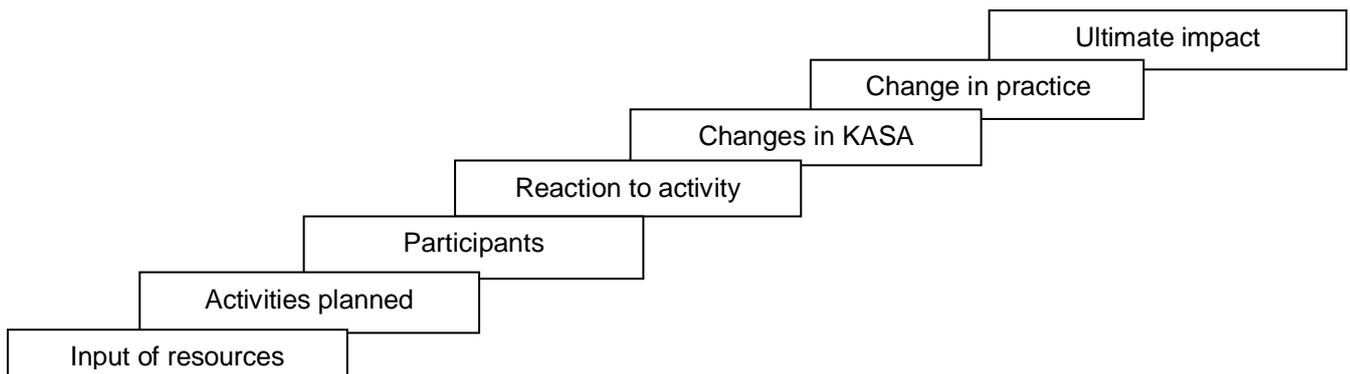


Diagram 5: Bennett's (1975) Evaluation Model

Other models present a combination of different models. The Hybrid Evaluation Model (Hahs-Vaughn et al., 2007) considers the impact of a range of other factors (diagram below) which are not mentioned in other models. These include cost effectiveness, access to CPD and stakeholders' satisfaction. The outputs are defined as learning effectiveness, translated into a successful implementation of new knowledge and skills.

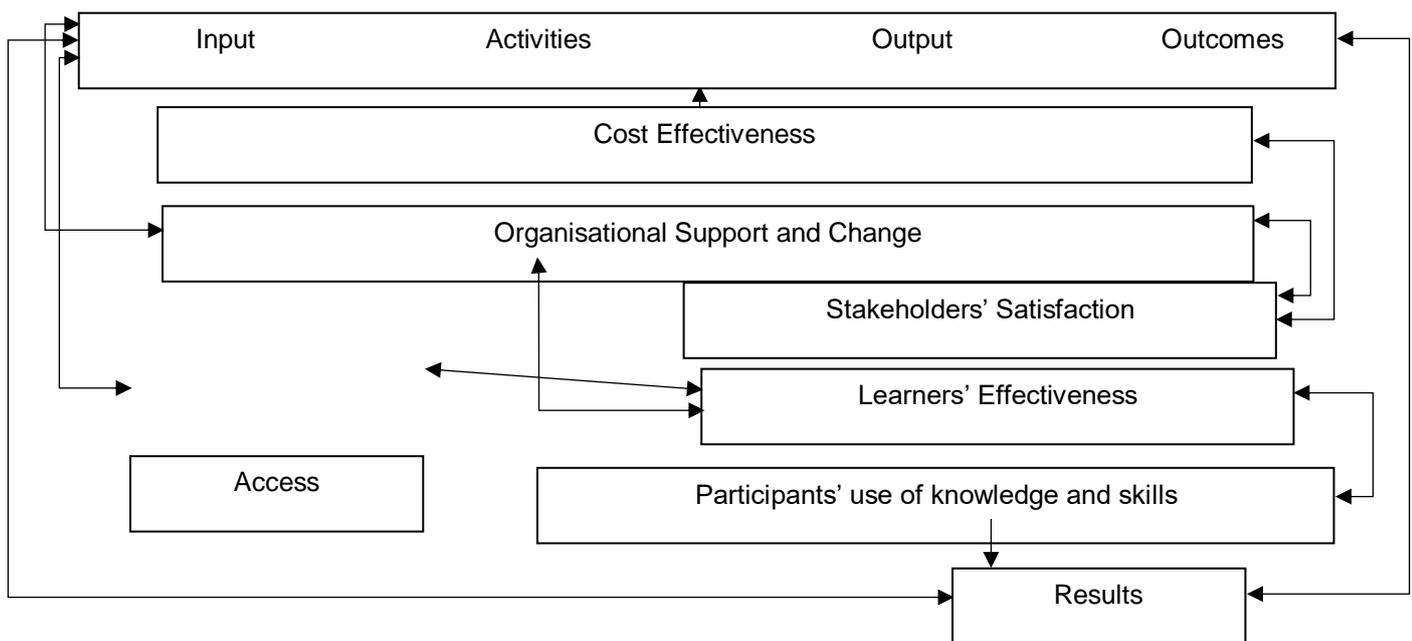


Diagram 6: Hybrid Evaluation Model (Hahs-Vaughn et al., 2007)

Bennett et al.'s (2010) 'Classroom Impact Routes to CPD' expands on the different types of impact (i.e. personal, peer and policy) a CPD activity can have (see diagram 7). A CPD activity can: (i) improve the knowledge, attitudes, skills and aspirations (KASA) of the individual who will then implement these changes in class (*the personal route*); (ii) encourage the cascading of knowledge which leads to a change in practice by other learners (*the peer route*); and (iii) it can also lead to a change in policy eventually leading to the ultimate impact (*the policy route*).

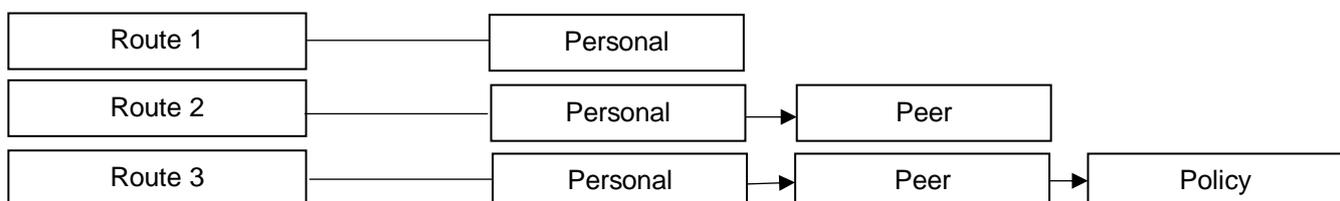


Diagram 7: Classroom Impact Routes to CPD Model (Bennett et al, 2010)

Even though the importance of CPD is widely acknowledged, evaluation of impact is still very limited. Guskey (2000) states that collecting statistical information at the end of a CPD programme is still the most widely used way of evaluation even though this gives no detail regarding impact on learners. Other common evaluation methods include questionnaires which measure participant satisfaction and which are distributed at the end of a CPD activity (Goodall et al., 2005). Effective CPD is multidimensional as seen from the above discussed models, thus evaluation must deal with different factors and not just participant satisfaction. In order to measure impact, evaluation has to be a long-term process and has to be 'built-in alongside the actual professional activity' (Guskey, 2000: 10).

1.7 Conclusion

There is no doubt that professional development for teachers in general, and PE teachers in particular, have become topics of growing interest to the research community. Research has now shifted to what Armour et al. (2015: 2) describe as a 'frenetic rush' to search for the most effective CPD practices for teachers. Reinforcing findings from the wider literature on CPD effectiveness (cf. Garet et al., 2001; Loucks-Horsley et al., 2010), PE-CPD research has consistently pointed to the value of professional learning that is active, practical, situated, collaborative, continuous and coherent, ensuring that teachers become autonomous learners (Armour et al., 2008; Bechtel and O'Sullivan, 2006).

Despite recent evidence of new effective PE-CPD initiatives, reality shows that these initiatives are resulting 'more expensive and less than effective in achieving

goals', (O'Sullivan, 2007: 10). Research shows that many PE teachers engage in CPD related to sports-specific content which is not enough to meet the demands of contemporary PE (Aeltermann et al., 2013). PE is nowadays considered by policy makers as the best way to promote healthy and active lifestyles; and new PE curricula include much more learning outcomes than simply the teaching of sports skills (Ennis, 2015; Cale et al., 2014). In order to optimize the PE teachers' profession, PE-CPD provision must therefore address a wide range of topics, suitable to the particular context and to the learning preferences and needs of the teachers and their respective students. This can be achieved through the development and implementation of CPD policies, which even though they should follow international recommendations, policy makers within each educational system should model policies at national and subsequently at school level (Watson and Michael, 2016). The 2009 European Union Council Conclusions raised awareness on the importance of developing CPD policies which encourage the continuum of CPD for teachers. During a two-way process which followed, each Member State shared its own policies and practices. This, in order to develop a European CPD framework made up of both the different and the common approaches to CPD within the Member States, aimed at providing effective CPD for all teachers (Steger, 2014)

In many educational systems, there is a level of understanding about what makes PE-CPD effective but still PE teachers are facing different barriers which are hindering their participation in continuous learning. CPD policies are interpreted and implemented according to priorities and expectations of each context (Sugrue, 2004) and thus it is important to analyse what local factors encourage and / or hinder the effectiveness of CPD provision.

The research reported in this study was undertaken in Malta, a context which presents interesting research opportunities in the current period. Malta is still a relatively new member state within the EU and during the past years, the Maltese educational system has gone through substantial changes in order to be in compliance with EU educational policies. Other changes were linked specifically to the teaching profession. The National Curriculum Framework (NCF) launched in 2012 emphasises the need for schools to be more autonomous and flexible in presenting programmes suitable to their students' needs. In order to match all the different abilities and students' learning preferences, teachers should move towards becoming more reflective practitioners (Ministry of Education and Employment, 2012). Using a mixed methods approach, the intention of this study was to offer investigative insights into the Maltese context, which could then be useful for all stakeholders responsible of providing effective PE-CPD provision for teachers. The lack of published research available on PE-CPD in Malta and on what Maltese teachers perceive as being effective CPD were the main reasons that encouraged the undertaking of this study.

CHAPTER 2: THE RESEARCH CONTEXT

2.1 Introduction

The previous chapter presented an overview of the current literature related to CPD and PE-CPD. This chapter presents the Maltese context in which this study was carried out. It provides information on the educational and CPD context in Malta in order to provide a context for the views and experiences of the research participants. Issues addressed include the foundations of the Maltese educational system with brief reviews of the major curriculum documents, Initial Teacher Training opportunities for Maltese PE teachers, working conditions for teachers and review of the current situation in relation to CPD research and practice.

2.1 The Socio-Political Context

The Republic of Malta is a southern European country found in the Mediterranean Sea. It is the smallest European country but in terms of population density, Malta ranks first amongst all European Union member states (NSO, 2014). Malta became an Independent state in 1964 while, in 1974, it became a Republic. Malta has been a member of the European Union since 2004 (adopting the Euro currency in 2008). General democratic elections are held every five years to elect the 69 members of Parliament, representing the Nationalist Party, which is a Christian Democratic party, and the Labour Party, which is a Social Democratic party.

According to the International Monetary Fund (IMF) (NSO, 2014), Malta is classified as an advanced economy, with major natural resources in limestone and a productive labour force. Malta's economy depends upon foreign trade, the financial

services' sector and tourism, with other areas currently developing including the pharmaceutical industry and the gaming industry.

2.2 Education in Malta

One of the major factors which has been formative of the education sector in Malta was the development and subsequent implementation of policies by dictate of the Malta Education Act (1988). The main aim of this act was to consolidate and reform the law related to Education in Malta, and to strengthen the teaching profession. Amongst a great many reforms, the act led to the lowering of compulsory schooling to aged 5 years. From 5 till 10 years of age, children attend primary education while from 11 till 13 years of age, students are in middle school education. For the last three years of compulsory education, pupils attend senior school education. The education system is also broken down into three different types of school. At present, 60% of the total school-age population attends State Schools, while 30% attend Church Schools and the final 10% attend Independent schools (NSO, 2014). At the end of year 11, all students are invited to sit for secondary Matriculation examinations (MATSEC). The MATSEC examinations board was set-up in 1991 with the sole aim of replacing the GCSE Ordinary and Advanced Level examinations set by UK Examinations Boards (University of Malta, 2012).

A major milestone included in the 1988 Act was the establishment of a framework for a National Curriculum which eventually became law in 2000 (Ministry for Education and Employment, 2015). This feature of the Maltese educational context will be discussed in further sections of this chapter.

2.2.1 Compulsory and post-secondary education

Since 2005, State Primary, Middle and Senior schools in Malta have been geographically clustered into ten colleges, nine in Malta and one in Gozo, which is the second largest island of the Maltese Archipelago. The aim of this clustering is for schools to work collaboratively together to improve student achievement whilst also moving towards more decentralized state schools (Borg and Giordmaina, 2012).

In addition to the State School system, there are also a number of schools which are run by the Catholic Church. Here, education is also given free of charge with the government subsidizing the running of these schools. Admission in Church Schools can be quite competitive since students who apply have to eventually take part in a ballot since entry number in Church Schools is limited. Two Church schools also offer post-secondary education. There are also twelve Independent schools which offer education against payment and cater for all levels with three of them offering also post-secondary education. The Government of Malta is responsible for the licensing of independent schools and conducts regular compliance checks with all private schools to ensure that the quality of education delivered is appropriate (Newham, 2014). Independent Schools are autonomous in relation to teachers' selection but follow the same national curriculum.

2.3 The National Curriculum

It was mentioned previously that Malta is a recent entrant to the EU. Over the years, this has meant that Malta has had to keep pace, and it is largely acknowledged that

it has achieved parity with EU countries in practically all EU education benchmarks (Ministry for Education and Employment, 2015). Maltese students have also participated in the TIMSS (Trends in International Mathematics and Science Study), PIRLS (Progress in International Reading Literacy Study) and PISA (Programme for International Student Assessment) studies. Results show that whilst top achievers compare well with those in other countries, there is still an unacceptable high level of low achievers who do not proceed to post-secondary education (TIMSS Malta Report, 2011). The National Curriculum Framework, which was established and published in 2012, outlines the desired outcomes for the coming years on the basis of Malta's shortfalls in these areas of international competitiveness.

2.3.1 Curriculum Documentation: 'Creating the Future Together' (2000)

After over a decade on from the establishment of the Malta Education Act (1988), the first National Minimum Curriculum, 'Creating the Future Together', was written into law in the year 2000. This national curriculum presented a new vision of equality of opportunity in education and promoted a student-centred, holistic learning experience with the aim of transforming the Maltese citizenry in time into lifelong learners (Ministry for Education and Employment, 2015; cf. European Commission, 2016). This national curriculum was implemented when Malta was still an EU candidate country in the process of aligning the country's policies with that of the European Union.

In the years following the publication of this document, it became clear that the local system needed a profound systemic transformation that went beyond foundational principles (Attard Tonna, 2015) and this led to major reforms. The overly

centralised and hierarchical structure of the education sector, for example, was seen as a barrier to these broad aims, and it was recognised that the system would have to become more of a 'network organization' if it were to progress and fulfil its stated aims of achieving quality education for all (Ministry of Education, Youth and Employment, 2004). This network system led to a shared leadership approach (Ministry of Education and Employment, 2015) with teachers assigned more leading, training and researching roles. Schools were encouraged to develop their own School Development Plans by identifying of key areas which teachers in the respective schools saw as priorities on which to work (Ministry of Education, Youth and Employment, 2004).

2.3.2 Curriculum Documentation: the National Curriculum Framework (2012)

In 2009, a review of the National Curriculum was conducted. Malta was experiencing its first years as a member state of the European Union. A broad outcome of this review and the process of integration and compliance with EU policy was the need for a new National Curriculum (Calleja and Grima, 2012). Over and above foundational principles – which, as was mentioned above, seemed overly state-centred and hierarchical – the 2012 framework emphasised the importance of flexibility within schools which would in turn facilitate a more *relevant* educational experience to students and teachers within their local practical contexts (Little, 2012). This compliance with broader EU policy has recently led to the development of a Learning Outcomes Framework (LOF) aimed at supporting the NCF (Ministry for Education and Employment, 2015).

2.4 The Learning Outcomes Framework (2015)

The stated aim of the Learning Outcomes Framework (LOF) is to put into practice the NCF's (2012) main objective: moving away from stand-alone subjects to learning areas and cross-curricular themes. This will create new opportunities and challenges for teachers as far as role definition and boundaries are concerned. Training regarding the LOF will be available to all teachers in order to help them develop learning experiences which are flexible to cater for the different students' abilities (Ministry for Education and Employment, 2015).

2.5 The PE Curriculum

Physical Education is one of the compulsory subjects at all levels. Students at year 9, 10 and 11 can choose to study examined Physical Education. The new NCF (2012) values the importance of regular PE lessons and has increased the number of lessons to three per week for middle school years and two for senior school years. All schools in Malta conform to these directives. The aim of the PE Department within the Directorate of Education is having a daily 40-minute PE lesson at both primary and secondary level but the lack of budget and time-tabling issues are two major barriers hindering this implementation.

2.5.1 Learning Outcomes Framework: Health and PE (2015)

The Learning Outcomes Framework for PE (2015) has outcomes directly related to the outcomes of the NCF including that of having independent learners and

enabling lifelong engagement in physical activity. The new PE curriculum has been planned around these outcomes and focuses on content, on the pedagogy and on the delivery of the subject (Government of Malta, 2014). This puts the Maltese PE curriculum in alignment with other PE curricula around Europe (Eurydice, 2013).

2.5.2 Early and Junior Years

The Maltese Primary PE Curriculum (2013) addresses the development of motor physical skills through the teaching of 'FUNdamentals', through experimentation and self-discovery (Government of Malta, 2013). Curricular autonomy enables teachers to choose whichever activities they would like to do in order to achieve these aims across the scholastic year.

2.5.3 Secondary Years

The PE Curriculum for Secondary Years (2014) is still being gradually implemented in order to be better aligned with the Learning Outcomes Framework (2015). Secondary school teachers are also given relative autonomy over the form of their subject matter and are encouraged to present a variety of activities so that students develop holistically. In contrast to primary years, there is greater focus on overall pedagogy (Government of Malta, 2014). The curriculum mentions explicitly the advantages of building students' 'communities of practice' through PE (Government of Malta, 2014: 3) with students learning by doing, reflecting and developing problem-solving abilities collaboratively. To monitor this, on-going assessment following

quantifiable criteria and performance of skills is done by the teacher throughout the year.

2.6 The learning continuum for Maltese PE teachers

2.6.1 Initial Teacher Training

Until June 2016, the University of Malta offered a 4-year full-time Bachelor of Education (Honours) degree specialising either in Early Childhood and Primary Education or in the teaching of a particular subject, including a Bachelor of Education (Hons) degree in Physical Education. All prospective teachers had field placements spread throughout their 4-year course, with weekly evaluation meetings held after school with their assigned supervisor. Prospective Physical Education (PE) teachers, apart from core educational modules common to all teachers, had modules related to the area of PE and Sport. .

As from October 2016, a Masters in Teaching and Learning (MTL) will be offered by the Faculty of Education. This will replace the unsustainable current B.Ed. (Hons) and PGCE courses (Ministry of Education and Employment, 2015). These two routes supplying teachers led to some subjects reaching saturation point with the result of teachers remaining unemployed (Caruana, 2015). An outstanding difference between this new MTL and the previous teacher education courses, is the weight given to actual teaching placements in schools. Throughout their placements in schools, prospective teachers will now be mentored and given responsibility gradually (Caruana, 2015). This mentoring scheme will help integrate theory and practice, and decreasing the gap

between the employers (the schools) and the suppliers (the University) (Caruana, 2015).

2.6.2 Teachers' working conditions in Malta

Teachers' working conditions form part of the Public Service Management Code (PSMC). In Malta as in Ireland, Italy, Cyprus and Finland, the working time of teachers is contractually defined as including both teaching hours and hours of availability at school (Eurydice, 2012), while no consideration is given to the amount of working time spent on preparation and marking which can be done outside school. The average working time for teachers in Malta is 28 hours per week, which is slightly below the EU 30 hours per week average (Eurydice, 2012) between September and May while in June, total working time amounts to 17.5 hours per week. This working time includes compulsory meetings which teachers have to attend in accordance to the teachers' collective agreement and which are organised either by the school or by the Education Department.

2.7 Continuous Professional Development (CPD) for PE Teachers

The Teachers' Handbook issued by the Directorate for Educational Services (DES) (2007) states that participating in further training and professional development activities is one of the teacher's main responsibilities. It is mostly the school that provides activities for Maltese teachers, and this through compulsory activities organised throughout the scholastic year. The collective agreement for teachers teaching in State and Church Schools states that teachers have to compulsory attend

three 2-hour sessions after school, three half-day sessions during school hours and one whole day of professional development. Although, Independent Schools are not bound by this collective agreement, and are autonomous in relation to CPD provision for their staff, a similar structure is offered to teachers in these schools. CPD in Malta is not connected to performance management reviews. It is only during certain voluntary sport-related and coaching courses organised specifically for PE teachers by local sport associations, that assessment is done at the end of the course and a certificate of accreditation is presented.

2.8 PE-CPD providers within the Education Department

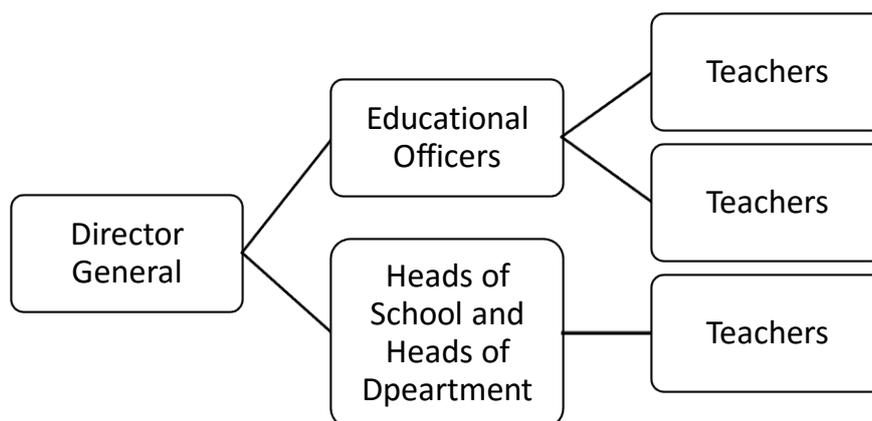


Diagram 1: The Maltese Educational Context – Organisational Chart

2.8.1 The Educational Officers (Eos)

The Educational Officer (EO) is responsible for the quality of education in schools. The role of the Eos is an inspectorial role (Ministry of Education, Youth and Employment, 2007) whereas they monitor the teaching and learning of their respective subject in schools. Throughout the scholastic year, the Educational Officer is expected to meet teachers regularly at their respective schools. The EO works in close

collaboration with the Heads of Department (HoDs) in relation to curriculum drafting, planning and implementation, selection of resources, assessment procedures, reviewing of examination papers and pedagogical aspects. Together with the HoDs, the EO plans and conducts the annual INSET course organised for teachers.

2.8.2 The Heads of Department (HoDs)

The Heads of Department (HoDs) are expected to collaborate with the school's leadership to ensure high standards of teaching and learning practices while being guided by the Educational Officers (Ministry of Education, Youth and Employment, 2007). In contrast to Eos, HoDs still perform teaching duties apart from other duties which include the setting of examination papers, syllabi development and planning professional development activities for teachers. Heads of Department must organise regular departmental meetings and keep minutes. Due to a directive issued by the Malta Union of Teachers, HoDs are not allowed to observe teachers in class.

2.9 CPD for Teachers in Malta – the way forward

Crucially, the new NCF (2012) emphasizes that the current CPD for teachers' structure is not adequate and more time must be directed towards the re-skilling and up-skilling of educators (Ministry for Education, Youth and Employment, 2012). In order to achieve this, the NCF Working Group suggested that CPD opportunities cannot be secured at the expense of contact teaching time (Ministry for Education, Youth and Employment, 2012) thus, new discussions with the Malta Union of Teachers (MUT) have to be set-up to find a solution to what is being described as an 'urgent matter'

(Ministry for Education, Youth and Employment, 2012: 19). The NCF suggests that the MUT, together with all other stakeholders in education, must find workable solutions that result in CPD provision either added to the teachers' workload or else undertaken in their own time. Throughout the first months of the NCF implementation, consultation led to the presentation of a Legal Notice (LN 140, 2015) regarding the establishment of an autonomous Institute for Education with the sole aim of carrying functions related to CPD and training of educators. The functions and duties of the Institute will include the implementation of CPD activities in line with educational policies and frameworks, the carrying out of CPD-related research and encouraging professional formation, skills, attitudes and practices by all educators in their diverse contexts (LN 140, 2015).

2.10 The gaps in PE-CPD research in Malta

In a climate of instability, Maltese teachers are acknowledging more than ever the need to be engaged in effective CPD activities. For PE teachers, the context is arguably more challenging due to the fact that they are responsible for so much more than simple pedagogical tasks within the classroom. The PE curriculum now places additional responsibility, and even burden, on teachers for attainment against broader health outcomes, education, and for introducing and preparing students for a healthy lifestyle and lifelong engagement in physical activity (Ministry for Education and Employment, 2015; cf. Armour and Harris, 2013; Bailey, 2006). All of this additional responsibility and accountability for addressing issues both within and beyond the

classroom increases the need for more PE-CPD activities not in a quantitative sense, but in relation to efficacy.

In addition to complying with a broader educational policy system, there are also more specific reasons why CPD research in Malta is worth undertaking. There are still concerns within the educational system that much of the current CPD provision still falls too much within what is typically referred to as a 'top-down' approach (Attard Tonna and Calleja, 2009). This tension between the need for increased professionalization and a system that is currently regarded in Malta as inadequate in relation to achieving this goal makes for a particularly interesting research project, the conduct of which will now be discussed in the following chapter.

CHAPTER 3: METHODOLOGY

3.1 Introduction

While there is a global consensus about the importance of CPD for teachers, research shows that the challenge now is how to define appropriately what effective CPD means. In order to be effective, CPD should leave a measurable impact on the learner's knowledge and practice (Desimone, 2009) and various evaluation models have tried to elicit forms of impact that CPD participation has on teachers. In Malta, the importance of CPD for teachers is highlighted in all recent educational policies and teachers are encouraged to attend activities organised by the school and by the Education Department. The next natural step in the local CPD scenario is to measure the effectiveness and the type of impact these activities are having on teachers and students. This purpose of this research project is to address this gap with specific reference to the PE-CPD situation vis-à-vis PE secondary school teachers in Malta. In this methodology chapter, the researcher intends to give information regarding paradigms within educational research and the rationale for choices related to the methods and procedures used in this study in order to answer these research questions:

- i. What are the professional development opportunities available for PE teachers in Malta?
- ii. In what types of professional development do local PE teachers engage and what do they find effective?
- iii. What are the theories, knowledge and assumptions that underpin providers' practices?

3.2 Paradigms within Educational Research

Social science is used in exploring political, social and educational issues and this puts it as a highly valued way of research in society (Popkewitz, 2012). When it comes to educational research, Morrison (2007) states that educational researchers need to think both about the phenomenon within education and about ways how to investigate them while empowering all actors within education (Poni, 2014). Each stakeholder within the educational system has his own view of reality and this results in having to use different ways of gathering knowledge, based upon a set of beliefs described as paradigms. Slevitch (2011) describes paradigms as the researcher's cognitive perspective about a particular phenomenon while Morrison (2007) considers research paradigms as the way to interpret gathered information and transforming it into data.

Understanding and following a paradigm is essential when carrying out social research because the researcher would be establishing his position vis-a-vis a phenomenon waiting to be researched (Hussain et al., 2014). Adopting a paradigm will affect the whole research process which can be divided in three stages (Grix, 2000). First the researcher decides what can be researched (ontology), then links it to what one can know about it (epistemology) and then choose ways and methods how to acquire this new knowledge (methodology). Though ontology and epistemology are considered intimately related as they both address the philosophy of reality (Krauss, 2005), they must still be analysed separately, with one following the other. Hay (2002) states that ontology logically should precede epistemology which then precedes methodology, irrespective of which paradigm is being adopted by the researcher. Guba and Lincoln (1994) state that no one paradigm is superior to another. Being a

product of the human mind, paradigms can be subject to the human error as well. The following section aims at describing the strengths and limitations of the four central paradigms within educational research: positivism, post-positivism, critical theory and social constructivism. The section will also provide a rationale for the choices made in this study.

3.2.1 Positivism

The positivist and constructivist research paradigms were set out to generalize and understand the meaning of a situation. This explanation by Habermas (1970) precedes his criticism of these two paradigms where he states they do not lead to any emancipation, growth and change. The positivist researcher sees the world as being made up of tangible facts (Dash, 2005) and of one, universally acknowledged solution to any problem (Hussain et al, 2013). The researcher detaches himself completely from the research and to gather data applies scientific methods to human affairs (Grix, 2010). Using science helps prevent against intrusion of the researcher's own beliefs and values (Guba and Lincoln, 1994; Dash, 2005) with findings clearly presented, precise and can easily be transferred and generalised to similar situations. This approach though was criticised as placing both the researcher and the participants in a passive role, controlled only by the environment (Dash, 2005). Philosophy still has not established a persuasive clarification on how is it possible to have a mind-independent truth and value-free reality (Aliyu et al, 2014) in a world in which each human being is unique. This proves that within educational research, taking a positivist approach is inappropriate due to the different contexts and the different stakeholders

which make up the educational system. In education, policy makers used to follow mostly the positivist paradigm especially when they wanted to form, explain or justify actions (Guba and Lincoln, 1994). Throughout these last years though, positivism has made space for post-positivism which is now considered as the main paradigm when it comes to professional decision making.

3.2.2 Post-Positivism

While both positivists and post-positivists believe in one reality, post-positivists believe that this reality can be apprehended differently by different individuals. For post-positivists, the purpose of a study is still that of explaining, predicting and controlling phenomena but when it comes to more complex social and behavioural aspects, observing and documenting just one true reality becomes a dubious concept (Scotland, 2012). Post-positivists believe in a reality which is exposed to the widest possible critical examination (Guba and Lincoln, 1994), resulting in evidence-based findings rather than just absolute truths. Similar to positivism, data presented is tied closely to what is being observed and interpretations are strictly based on it (Guest et al., 2012). Due to the objectivity of positivism and post-positivism, Taylor et al (2012) state that this objectivity suppresses the educational researchers' possibility for further professional development due to a lack of opportunity for transformative learning to occur. Instead researchers here end up producing observable, value-free data, in contrast to transformative intellectuals linked to the critical theory of research (Guba and Lincoln, 1994; Crotty, 2003).

3.2.3 Critical theory

Instead of taking a reporting stance as positivists and post-positivists do, critical researchers aim at obtaining a deeper insight of what is happening in a particular situation and also act on it. This links interactively the researcher and the research study with the resulting findings being value dependent (Guba and Lincoln, 1994). Apart from the influence of values, critical researchers acknowledge also the whole context and create an agenda for reform (Scotland, 2012). Cohen et al (2007) describe this research as being of a catalytic validity since it not only takes in consideration the context but allows researchers and participants to actively engage together in the whole research process with the sole aim of transformation. This declaration of transformation depicts critical theory as a strong paradigm (Ernest, 1994; Hussain, 2013) with researchers criticising it as being elite, naive and providing unworkable insights (Clark, 2011).

This criticism is due to the fact that critical theorists focus mostly on persons and institutions in positions of power who might have their own agenda, instead of being in touch with the persons who actually will benefit from this transformation (Scotland, 2012; Clark, 2011). Habermas (1984) defines three routes which critical researchers embark on: predicting and controlling, understanding and interpreting and change. This has been criticised as being an oversimplified way of understanding reality due to the fact that individuals are different and thus have a multitude of interests (Hussain, 2013; Cohen et al., 2000). In consistence with critical theory, a new paradigm evolved, constructivism, giving a deeper insight of the situation where not only the

context is studied, but also the interaction of the participants with both the historical and the cultural context (Scotland, 2012). Constructivism has been described as a positive development of the critical theory (Price and Reus-Smith, 1998).

3.2.4 Constructivist theory

The relativist approach assumed by constructivists mostly differentiates it from all other research paradigms. The way participants perceive and consider a situation shows that there is no one truth, but instead realities are socially and experientially based, giving way to multiple, multi-layered and complex realities (Guba and Lincoln, 1994; Dash, 2005; Scotland, 2012). Constructivist researchers create knowledge through their interaction with participants with theories developing throughout the research process (Creswell, 2013). Validity in constructivism is often questioned due to the fact that there are different interpretations which give leeway to contradicting and mismatched opinions (Aliyu et al., 2014; Scotland, 2012). Scotland (2012) adds that constructivist research has also limited transferability and thus is not useful for policy makers. In educational research, which Berliner (2002) describes as being the hardest research of all due to the different stakeholders, conducting objective research in unrealistic (Hussain, 2013). Educational issues must be deeply investigated and accountable participants.

Taking in consideration the importance of being subjective in educational research (collecting information from different participants) and the way the researcher is placed as being both a participant and a facilitator (Guba and Lincoln, 1994), a constructivist approach was chosen as being the most appropriate framework for this

study. Apart from collecting data, the researcher is a full participant in the research being a PE teacher in a Maltese school, with no external structure imposing its ideology (Cohen et al, 2007). The sole aim of the researcher is to provide a faithful picture of the current situation of PE-CPD in Malta, to analyse the gap between what is provided and what teachers want and to propose future PE-CPD provision in Malta based on the suggestions given by the participants themselves. In order to reach these aims, adopting a mixed methods research methodology was chosen as the most appropriate for this study.

3.3 Mixed Methods Research

The division between researchers which emerged in the past and which placed researchers on either the quantitative or the qualitative front, is now decreasing (Symonds and Gorard, 2010). Researchers are now seeing the legitimacy of both paradigms which can provide different perspectives on the same researched topic (Greene, 2008). Within this study, the use of a combination of quantitative and qualitative methods was thought to give a clearer picture and a better understanding of the PE-CPD situation in Malta. Using solely quantitative methods would have meant that only descriptive information would be gathered, while qualitative methods on their own would have facilitated non-measurable data collection but at the same time would have given no clear indication on the current PE-CPD provision and the teachers' participation rates in these activities. In order to eliminate these limitations, in this study, quantitative methods were used to analyse the current PE-CPD provision for local PE teachers while qualitative methods were used to analyse the opinions of

teachers regarding the current CPD opportunities and their suggestions regarding what they think is effective PE-CPD. This intentional collection of both qualitative and quantitative data acknowledged the strengths of both methods and led to the answering of the research questions.

While planning the research design, the researcher followed the purposes of mixed methods research as presented by Venkatesh et al. (2013). Questions used during interviews and in the survey complemented each other, thus producing complementary views about the same phenomena (Venkatesh et al., 2013). Together, both research paradigms gave a sense of completeness to the study by giving a clear picture of the current PE-CPD situation in Malta. Whilst having placed the present study within a constructivist and mixed methods framework, the next section explains the research design employed to answer the research questions and the reasons behind these choices.

3.4 Sampling and participants

In order to answer the research questions, the study was conducted in three phases (see Research Timeline – table 1)

Phase One – Semi-structured interviews with 20 PE teachers from different educational contexts (State, Church and Independent schools) (March – May 2015). Data collected from the interviews were used in the second phase of this research.

Phase Two – A national PE-CPD survey distributed to all PE teachers teaching in local secondary schools (July – September 2015)

Phase Three – A semi-structured interview with a Head of Department for Church Schools (March 2016)

	Phase One (20 semi-structured interviews)	Phase Two (National PE-CPD survey)	Phase Three (Interview with PE-CPD provider)
March to July 2015	<p>Develop semi-structured interviews' questions</p> <p>Select 20 teachers for semi-structured interviews through purposive sampling</p> <p>Obtain permission from Education Department, Heads of School and consent from interviewees to conduct the interviews</p> <p>Conduct semi-structured interviews within the schools</p>	<p>Develop questions for the National PE-CPD survey</p> <p>Apply for permission to distribute the survey during the July 2015 INSET course</p> <p>Distribution of paper survey during INSET course for PE teachers.</p> <p>Publishing online version of survey</p>	
July to October 2015	<p>Transcription of semi-structured interviews' recordings</p>	<p>Inputting and analysis of data on SPSS</p>	<p>Developing structured interview's questions</p>

	Coding of transcripts		Logistical arrangements to carry out structured interview
March 2016	Eliciting of common codes to compare data obtained with what is published in the literature	Comparison of data obtained from national PE-CPD survey with what is published in the international PE-CPD literature	Conduct of structured interview Coding of interview

Table 1: Research Timeline

The aim of phase one was to gain a greater depth of information (Teddlie and Yu, 2007) about the PE-CPD opportunities available for local teachers and how they perceive their effectiveness. The researcher opted for purposive sampling in choosing interviewees with the type of school in which the selected teachers teach (State, Church or Independent) being the main characteristic used as a basis for selection. The researcher needed to interview participants who represent and symbolise relevant features of the way CPD is approached and tackled in different schools in Malta. The researcher opted for twenty PE teachers divided in sampling frames (Mason, 2002) according to which type of school they teach in. Other individual characteristics which the researcher took in consideration were gender and years of experience.

To facilitate the choice of interviewees, the PE Educational Officer handed over a list of all teachers, from which the researcher chose the twenty participants. This led to an information-rich sample (Johnson and Waterfield, 2004) made up of 10 teachers from State Schools (5 males and 5 females), 6 teachers from Church Schools (4 females and 2 males) and 4 teachers from Independent Schools (3 males and 1 female).

3.5 Research Design

In order to analyse the current situation related to PE-CPD opportunities for teachers in Malta and to understand what teachers want and believe is effective CPD, the researcher opted for an exploratory cross-sectional research design. A cross-sectional design, helps to observe and measure simultaneously exposures and outcomes of the studied topic through the involvement of participants from different age groups (Thomas et al., 2015). In relation to this study, we can define the current CPD opportunities available for Maltese PE teachers as the 'exposures' while the impact these opportunities have on teachers as the 'outcomes'. Other definitions define cross-sectional research as research that involves using different groups of people who share certain characteristics, in this case all participants were PE teachers, but differ in what concerns the teaching context and the years of experience.

Due to the time limitation of the study, using a cross-sectional design was preferred to a longitudinal study. When using a cross-sectional design, data taken are snapshots at one particular point in time (Levin, 2006). The researcher wanted to collect data related to all forms of learning experiences the teachers had throughout their career. Questions asked both in the interviews and in the survey encouraged teachers to think about the CPD opportunities they experienced throughout their teaching years, with particular reference to the last two years. The following sections will explain the data collection tools used in each phase of the study.

3.5.1. Cross-sectional Research Design

In order to analyse the current situation related to PE-CPD opportunities for teachers in Malta and to understand what teachers want and believe is effective CPD, the researcher opted for an exploratory cross-sectional research design. A cross-sectional design helps to observe and measure simultaneously exposures and outcomes of the studied topic at one point in time (Sedgwick, 2014; Fogelman and Comber, 2007). In relation to this study, we can define the current CPD opportunities available for Maltese PE teachers as the 'exposures' while the impact these opportunities have on teachers as the 'outcomes'. Other definitions define cross-sectional research as a research that involves using different groups of people who share certain characteristics (e.g. all participants being PE teachers) but differ in others (e.g. teachers who teach in different settings, who have different years of teaching experience) (Cherry, 2016). Due to the time limitation of the study, using a cross-sectional design was preferred to a longitudinal study. Research methods literature often compares the use of cross-sectional designs with longitudinal designs. The latter enable researchers to detect and monitor variations and trends over time while when using a cross-sectional design data taken is a snapshot at one particular point in time (Levin, 2006). This means that variations over time won't be detected and monitored so in order to overcome this limitation, questions asked to the participants in this study, encouraged them to think about the CPD opportunities they experienced throughout their teaching years.

Understanding the Maltese educational context was necessary in order to present a holistic picture of the Maltese PE-CPD situation. To ensure its reliability, it was ideal to have the whole population of secondary schools' PE teachers participating

in this study. During the first phase of the study, in order to collect data that can then be generalised to the whole Maltese PE teachers' population, participants were purposively chosen to represent the different educational contexts. One limitation of cross-sectional design that is frequently mentioned is the fact that in order to get reliable and valid data, the researcher needs a high response rate (Mann, 2003). To obtain a high response rate in the national PE-CPD survey, the researcher chose the compulsory July 2015 PE INSET course to distribute and collect the survey personally. Using this triangulation of methods to collect data was fundamental in improving the validity of this study and for bringing together experiential accounts of the different stakeholders in the Maltese PE-CPD scenario (Polkinghorne, 2005). Data collection tools used in this study are explained in the following sections starting with the rationale and the sampling method used in phase one of the study; the semi-structured interviews with twenty PE teachers.

3.6 Phase One: Semi-structured interviews with teachers

Phase one of this study included twenty semi-structured interviews with PE teachers teaching in State, Church and Independent schools (appendix 1). The semi-structured interviews were aimed at helping the researcher gather information from the teacher as an individual, as part of the school's context and as a member of a PE department. Rabionet (2011) describes the interview as a flexible and powerful tool that researchers can use to capture how people make meaning of their experiences. The main research objectives of this study centre on understanding experiences (*what are the PE-CPD activities in which local PE teachers engage?*), analysing attitudes (*what is the*

teacher's response to this participation?) and collecting opinions (*which activities are the most effective and what would teachers like to see more?*). Kvale (2006) expands the interview definition and uses instead the term 'dialogues'. Later, together with Brinkmann, he describes interviews as 'professional conversations' (2009). This study's 'professional conversations' embrace what Kvale (2006) describes as the egalitarian characteristic of an interview. This characteristic distinguishes the interviewing tool from the rigid format of a questionnaire which separates the researcher from the participant.

In this study, both the researcher and the interviewees are PE teachers. This gave the researcher the status of an 'insider' (Dwyer and Buckle, 2009: 55) sharing the same role as the participants and going through the same CPD experience. Both the researcher and the participants were experiencing the same challenges faced by Maltese teachers and this led to the researcher being accepted immediately and allowed to probe in greater depth to obtain better data. As the interviews progressed though, this high level of trust resulted in participants assuming the researcher is already aware of certain facts, and thus refrained from giving full explanation. This led the researcher to rethink taking a full insider role, and instead opting to follow Acker's (2000) recommendations to position herself in the space between the insider-outsider researcher dichotomies, in order to collect all necessary data. The researcher worked on, not only strengthening the similarities with participants but also identifying differences, especially related to the different contexts in which the participants teach. Being a PE teacher in a State School, placed the researcher as an outsider in relation to participants teaching in Church and Independent Schools.

In order to probe for further detail, especially related to the different contexts (i.e. what type of CPD activities are organised within the respective schools; the approach towards CPD shown by the respective Senior Management Teams), and to avoid a confusion of roles (Asselin, 2003) (i.e. being a teacher and a researcher), semi-structured interviews were preferred to structured and unstructured ones. Structured interviews, at times described as verbal questionnaires (Ribbins, 2007) present questions in the same order for all participants and vary only from questionnaires due to the presence of the interviewer, ready to clarify any doubts related to questions (Cachia and Millward, 2011; Rowley, 2012). Since not all teachers interviewed teach in the same context, questions could not be structured and uniform to all especially due to different PD policies implemented in each individual Church and Independent school. On the other hand, totally unstructured interviews were not feasible since questions would have evolved as the interview process unfolded (Cachia and Millward, 2011) and this could lead to missed information and difficulties in comparing and integrating data (Rowley, 2012). In order to avoid missing important information especially related to in-school CPD, the researcher opted for semi-structured interviews with a fixed set of questions and additional questions introduced in order to facilitate further exploration of certain issues.

3.6.1 Developing the interview questions

Designing appropriate questions is another key feature needed to produce rich and reliable data (Ribbins, 2007; Jacob and Furgerson, 2012). A review of the PE-CPD related international literature helped the researcher in the development of certain

questions aimed at comparing the local scene with the international PE scene while the lack of local PE-CPD literature helped the development of other questions aimed at producing meaningful data which were still currently unavailable (Jacob and Furgerson, 2012). After basic biographical questions aimed at creating the participant's profile, conversation aimed at eliciting the views and the opinions of teachers on the various sub-sections which make up current CPD literature (Kennedy, 2015). Questions shifted from the current PE-CPD opportunities to their degree of effectiveness as experienced by teachers (research questions 1 and 2). Further on, the interview included also questions about the relationship of teachers with local PE-CPD providers, mainly the EO and the HODs (research question 3). Questions about CPD providers might result in providing controversial information thus they were asked towards the end of the interview when the participant felt more at ease with the researcher (Jacob and Furgerson, 2012).

Since the researcher has always taught in a State School, the need for information related to the PE-CPD situation within Church and Independent school was greater. This led to the use of filter questions (Eckman et al, 2014) which subsequently paved the way for other follow-up questions. This expansive way of questioning helped the researcher get better responses and unexpected data which enriched the study (Jacob and Furgerson, 2012).

The interview with the CPD provider was divided in two parts and took a more formal stance. Questions for this interview were developed after the data collected from the first two phases of the study had already been analysed. The first part dealt with how the CPD providers are supporting teachers in facing current challenges. The conversation shifted then to CPD provision where the researcher asked questions

related to how current CPD activities are planned, implemented and evaluated. The second part of the interview focused on professional collaboration amongst Maltese PE teachers (appendix 5). Data collected from the first two phases of the study showed how Maltese teachers value professional collaboration, and thus the researcher aimed at analysing whether the main CPD providers for teachers share the same views and perceptions.

3.6.2 The Interview Process

Once the twenty teachers and the CPD provider were chosen, the researcher contacted them personally in order to set-up an interview date. In the meantime, since all interviews with teachers were done on school premises, the researcher sent an information letter to the Heads of School in which the purpose of the study was explained (appendix 2). When permission was granted, the interview dates were scheduled. The twenty interviews were done between March and June 2015 during school hours, mostly during the time allocated for PE departmental meetings or during the teachers' free periods. The interview with the CPD provider was done in the provider's office in April 2015 and followed the same procedure as the teachers' interviews.

The researcher made it a priority to create trust and put the participant at ease in exchanging information with the researcher (Nabeel Al-Yateem, 2012). The participant was given the right to choose to withdraw from the study any time if he/she felt the need (appendix 3 and 6). In order to capture all opinions and ideas and to avoid a biased interpretation from the researcher, recording all interviews was preferred together with taking field-notes. Both methods complement each other (Duranti, 2006),

with the researcher taking notes in order to comment about impressions and reactions which couldn't be captured by the recorder. This sense of completeness led to a collection of all salient points while at the same time was a good preparation for the analysis phase.

3.7 Phase Two: National PE-CPD survey

Phase two of the study was a national PE-CPD survey distributed to all PE teachers teaching in all secondary schools (appendix 4). It is described as 'national' because its aim was to provide a picture of the PE-CPD situation within all local secondary schools. The semi-structured interviews done in phase one of the study helped the researcher explore further the theme in relation to the Maltese context and map out the important key areas needed to be tackled in this national survey. Furthermore international literature was consulted in order to set boundaries and to decide what data were essential to collect (Bell, 2007). The self-completion questionnaire was an appropriate choice to investigate patterns and frequencies related to local PE-CPD opportunities and to identify the teachers' needs, expectations and priorities regarding to what they consider as effective CPD.

3.7.1 Designing the questionnaire

Part one of the questionnaire consisted of biographical, close-ended questions aimed at collecting statistical data related to the teachers' profiles. Part two dealt with the teachers' participation in CPD activities. The list of different CPD activities for teachers was compiled after a thorough analysis of the 2013 Teaching and Learning

International Survey (TALIS) administered by the European Commission. Teachers had to indicate whether and how often they participated in these activities during the last two years (or during the last scholastic year in the case of Newly Qualified Teachers – NQTs). Asking teachers specifically about the last two years aimed at avoiding the risk of recall bias (Hassan, 2005; Williams, 2014). A Likert scale of 6 points ranging from *1 – Never* to *6 – Once a week or more* was used to collect this frequency, statistical data. A close-ended question asking whether teachers would like to participate in more CPD activities and a question related to the barriers hindering participation followed.

In view of the current PE-CPD literature which is now focusing on the effectiveness of CPD, part three dealt with the teachers' views about CPD effectiveness. The Likert scale was used with a 10-point scale ranging from *0 - no impact at all* and *10 - substantial impact*. Teachers had to indicate the level of impact the PE-CPD activities they engaged in, left on their practice. A second question grouped the compulsory PE-CPD activities: out-of-school CPD organised by the Education Department on a national scale, in-school CPD and CPD within the school's PE department. On a scale of *0 - not satisfied at all* to *10 - highly satisfied*, teachers were asked to rate their level of satisfaction of activities organised by these providers.

Part four of the questionnaire included open-ended questions in which teachers were asked to comment about the PE-CPD activity which they recall as the most effective throughout their career. They had to describe in detail the reason for participating in this activity and what impact it left on their practice and on their students' performance. Data collected from part five aimed at putting forward suggestions about the preferred type of CPD that teachers believe would be the most effective. Questions

dealt with content and preferred CPD delivery which teachers would like to experience in future CPD activities. Having questions which were the same for all participants, irrespective in which context they teach, aimed at increasing the reliability of this study. In order to avoid also any methodological surprises (Gundmundsdottir and Brock-Utne, 2010) which could jeopardize the study's validity and reliability, the researcher moved on to pilot the questionnaire before the actual distribution.

3.7.2 Piloting process of the questionnaire

Piloting means validating the researcher's measures against how respondents might interpret data (Desimone and Le Floch, 2004) and this leads to the collection of more valid data. A cognitive interview group made up of a group of five secondary school PE teachers was set-up. Cognitive interviews are considered as ideal in identifying misinterpreted questions and left out crucial information (Waddington and Bull, 2007). Together with these five teachers, the researcher went through all questionnaire sections and allowed the others to discuss verbally. The researcher remained silent, thus avoiding influencing the other teachers. The piloting process led to changes related to the clarity of the instructions introducing each question. These changes improved the questionnaire in a way that now the researcher felt confident enough of distributing this national survey.

3.7.3 Distributing the questionnaire

In order to ensure a good number of responses, the researcher opted to distribute the questionnaire during the annual INSET course organised for local secondary schools' PE teachers. This assured the researcher of a good response rate. The researcher was allowed a 45-minute slot on the first day of the INSET course in July 2015 during which the aim of this study was explained, the questionnaire was distributed, filled in by the participants and collected by the researcher. Since for the annual INSET course not all teachers are asked to attend, the researcher did an online version of the questionnaire and emailed it to the teachers who were not present for the course. The PE EO supplied email addresses of all PE teachers teaching in State and Church Schools while Independent Schools' teachers were contacted through their respective Heads of School.

3.8 Data Analysis

This section explores the methods employed to analyse data. The data to be analysed consisted of transcripts of the 20 interviews done with the Maltese PE teachers and a transcript of the interview done with the CPD provider. In the second phase of the research, data from the 78 surveys collected from Maltese PE teachers was collected and analysed. Therefore, the variety of research methods employed generated two main forms of data: transcribed interviews and statistical analysis. Data analysis was an ongoing process especially during the first and third phase of the study. Watling and James (2007: 350) describe data analysis as an 'iterative and persistent part of the research process', especially in the case of analysing data collected from

interviews. Given the insider status of the researcher, parts of the data collected during interviews, especially data related to contextual issues (e.g. types of CPD activities and in-school CPD policies), were immediately analysed and gave rise to further, spontaneous questions which provided new data. This approach aimed at developing a theory related to the main aims of this research with specific focus on the local educational context and local PE teachers.

3.8.1 Analysing interviews using an adapted grounded theory

The twenty recorded interviews with teachers and the interview with the CPD provider, presented the researcher with an extensive overview of views and perspectives which were compared and categorised (Kolb, 2012). The first step included the transcription of each interview *ad verbatim*, with the field-notes taken during the interview helping the researcher to gain a deeper insight. This led to step two where the researcher developed a detailed profile of each interviewee. An example of a teacher's profile is shown in the box below.

Profile Teacher 1

Teacher 1 is a female teacher (30years old) placed in a secondary school in the northern part of Malta. In her school, with a population of around 800 students, attend students between Year 7 and Year 11. The school is situated in a nice area of the island and has both indoor and outdoor sports facilities. In this school there is a new indoor multi-purpose sports hall (inaugurated 2012) and a large outdoor area including a 200m track, a sand-pit, and four multi-purpose courts. Teacher 1 is one of the three PE teachers in the school. At the time data were collected, she was working with a male teacher who is new to the school but who has been teaching for 9 years in other schools and a supply PE teacher who has just obtained the MCAST Sport Diploma.

Teacher 1 has been teaching for seven years and has always taught in this school. She graduated from the UOM specialising in PE in 2008. She is currently a handball player and before used to play football too. After school, she dedicates time to photography. In fact she commented, that she took up photography so that she could do something different from school. In fact, she was never into coaching and does not intend to do so in the future.

The teacher reported attending all compulsory CPD activities organised by the school and by the Educational Department. She continuously referred to a particular CPD activity which was organised at the beginning of her teaching career, during which she met weekly with other PE teachers and worked on the planning of a new PE curriculum and also had the opportunity to observe good practice. Teacher 1 suggested also ways on how CPD for PE teachers can be improved.

Next followed the open coding process (Corbin and Strauss, 2008) with the researcher re-reading the transcripts eliciting different categories, which included both descriptive and analytic categories (Birks and Mills, 2015). Descriptive categories included evident labels such as 'formal CPD activities', 'informal CPD activities', 'features of effective CPD'. Analytic categories included more context and individual specific labels such as 'dispositions towards CPD', 'learning preferences'. Once categories were identified, axial coding followed where the researcher started to link the different categories into codes (Kolb, 2012). Different types of codes were elicited; codes related to context (the different schools), situation codes (types of activities), perspectives (views and opinions), process codes (changes experienced throughout the years), activity codes (what happens frequently), event codes (any particular experience which left an impact) and relationship codes (teachers vis-a-vis other

colleagues and CPD providers) (Saldaña, 2012). In the final stage of coding, defined as selective coding (Strauss and Corbin, 2008), the researcher developed the main themes, directly linked to the research questions. An example of codes, memo-writing and categories with excerpts from teacher's 1 interview is shown below. Each box represents one question.

<p>My knowledge increased not subject wise but in areas such as classroom management, lesson planning, behaviour control, how to use more group work.</p> <p>CATEGORY: Increase in knowledge throughout the years</p> <p>Code: Improvement in classroom management Code: Improvement in lesson planning</p>	<p>Did your knowledge change over the years?</p> <p><i>Asked about the ways her knowledge increased, teacher 1 states clearly that content wise she records no particular increase in her knowledge. This might be due to lack of CPD opportunities for PE teachers. Later on in the interview she mentions a particular effective CPD activity which is now discontinued.</i></p> <p><i>Teacher 1 states that she improved in areas related to classroom management and pedagogy, mostly through personal experience throughout these seven years. (see next quote)</i></p>
<p>Personal experience. In the beginning I used to be very lenient with my students. Nowadays I became a more authoritarian teacher and my classes are more controlled. The current context made me become so. Today's students are different than those we had 7 years ago.</p> <p>CATEGORY: Impact of personal experience Code: Change in attitude</p>	<p>What or who helped you change?</p> <p><i>The context and the students throughout the years were the learning platform for teacher 1. Learning here takes the form of a change in attitude. Before she was a lenient teacher, now she is more authoritarian due to the increase in challenging students. Having controlled and manageable classrooms is for teacher 1 an evidence of impact of her learning through personal experience.</i></p>
<p>Now in my PE department, I feel that everyone is working on his own. One teacher has just started working in this school and the other one is a supply teacher who has no experience whatsoever about PE. We respect each other, we don't hinder each other but we don't collaborate.</p> <p>We have a set meeting but we discuss continuously. Whenever we need to meet with the SMT, then yes we make use of that slot. But whenever we need to discuss about Sports Day or about outings, we discuss whenever we find the time. We are in the same staff-room so it is easy to meet.</p> <p>CATEGORY: The function of the PE department at school</p>	<p>Describe the weekly PE meeting at school. Is it formal or informal?</p> <p><i>Here teacher 1 presents the current atmosphere within the school PE department. She is still trying to build a rapport with her new colleagues but has so far never collaborated with them in relation to pedagogical issues. Further on she mentions the fact that they collaborate a lot on organising activities and outings. She believes in a deeper collaboration because she is aware of the difference of when she used to work with the other teacher.</i></p> <p><i>Logistically, teacher 1 has a weekly 40-minute slot in her time-table aimed for PE teachers to meet. This</i></p>

<p>Code: Lack of collaboration with colleagues within the same school</p> <p>Code: Collaboration only on organisation of activities</p>	<p><i>meeting in this school is not being used as a learning opportunity, but instead it is being used to carry out organisation of events, extra-curricular activities and discussions with SMT. This implies that high workloads are not allowing enough time for PE teachers to engage in learning experiences together within the workplace.</i></p> <p><i>The fact that all three teachers share the same staff-room can be an indication that there is the will to start collaborating together but teacher 1 does not mention specific barriers which are hindering this collaboration.</i></p>
---	--

As the example above shows, memo-writing helped to elicit similarities amongst teachers teaching in different contexts and teachers with different years of experience. For example the majority of interviewed teachers mentioned the importance of engaging in workplace learning and professional collaboration. Grounded theory led to further investigation of these concepts throughout the interview with the CPD provider and to practical suggestions on how these concepts can be applied in the Maltese educational context.

3.8.2 Data Analysis – National PE-CPD Survey

All quantitative data collected from the national survey was entered into an SPSS 22 version for analysis. Frequencies and means were used to analyse biographical details which mapped out the local PE teachers' population. Frequencies were also used to quantify the type of CPD activities in which PE teachers engage. One-way ANOVA tests were carried out in order to determine any significant difference between the different variables, especially regarding the different contexts in which teachers work. Likert Scale questions were analysed using frequency distributions.

Open-ended questions in the questionnaire were analysed manually using the same coding process used for the semi-structured interviews.

3.9 Ethical Considerations

All research studies carry with them a number of ethical issues. The researcher's main aim was to protect the privacy and the anonymity of both the participants and the context in which they teach. In order to carry out research in Maltese schools, the researcher needed written consent by the Education Department. Once approval was given (February 2015), the participants in Phase One of the study (semi-structured interviews) and their respective Heads of School were contacted and briefed verbally about the study. On the day of the interview, the Heads of School and the participants were given a formal letter which included details of the researcher, details about what one should do in case of a desire to withdraw and details about protection of data (appendix 2 and 3). All participants were requested to sign a consent form.

For phase 2 of the study (the National PE-CPD survey), the researcher collaborated with the PE Educational Officer in order to be able to distribute the survey during the July 2015 INSET course. Formal request put forward by the researcher and the PE Educational Officer, was presented in May 2015 to the Education Department, in order to obtain permission to carry out research work during the INSET course. Once approval was given, the PE Educational Officer allowed a 45-minute time-slot for the researcher to explain in detail the rationale of the survey. Teachers present at the INSET course had ample time to ask questions directly to the researcher before and even during the actual filling of the questionnaire. Ethical issues were also taken in

consideration vis-à-vis the online version of the survey (July 2015). Barnes (2004) emphasises the importance of ensuring the participants' protection and their awareness of what the study is all about especially since they were not going to be meeting the researcher personally. The introductory screen shot of the online survey gave clear details of the study's objectives and the researcher's contact details. Another important ethical issue was related to data ownership and the fact that participants in online studies must be aware of who will be storing the data provided. Information on data storage was also given on the same introductory screen shot.

3.10 Limitations

When a researcher uses a cross-sectional design, the data taken are snapshots at one particular point in time (Levin, 2006). Variations over time won't be detected and monitored so in order to overcome this limitation, in this study teachers were encouraged to think about the CPD opportunities they experienced throughout their teaching years, with particular reference to the last two years. This helped to elicit comparisons between the features of previous and current CPD. Data collection was followed by data analysis. The analysis led to the extraction of the main themes related to local PE-CPD, which will be discussed in the next chapter.

CHAPTER 4: FINDINGS

4.1 Introduction

In this chapter, findings from all phases of the study are reported. The chapter begins with a summary of findings from the National PE-CPD survey carried out amongst Maltese secondary schools' PE teachers. Following this is a detailed analysis of the semi-structured interviews which were undertaken with n=20 PE teachers teaching in local State (n=10), Church (n=6) and Independent schools (n=4). Within this second part, some of the open-ended questions of the National PE-CPD survey were analysed together with the findings and outcomes of the interview which the researcher has undertaken with a PE HOD, a main CPD provider. The findings are presented in such a way as to map an initial picture of the current provision and uptake of CPD opportunities for PE teachers in Malta, and to trace whether and how this is being translated into everyday teaching practice and policy-making.

4.2 Survey Findings

The survey (appendix 4) was distributed during the annual INSET course organised for PE teachers in July 2015. Present for this INSET course were: (i) a group of State School teachers who attend on a compulsory basis (n=40); and (ii) a small number of Church and Independent Schools' teachers who attend on a voluntary basis (n=12). In order to extend upon this population, an online version of the survey was also created and distributed during the same week to reach teachers who were not present for the INSET course. In total, there were 78 responses out of an estimated population of

n=150 Secondary Schools' PE teachers¹, for a response rate of 52%. The results of the survey are presented in the following sections underneath the same headings used when administering the national PE-CPD survey.

4.2.1. Part One: You and your school

Out of the 78 respondents, 41 were males (51.9%) and 37 were females (46.8%). Teachers were divided: 77.2% (n=61) from State Schools, 19% (n=15) from Church Schools and 2.5% (n=2) from Independent Schools.

The majority of respondents (73.4%) were in possession of a Bachelor of Education (Hons.) degree, while 11.4% had a Master's degree in PE. Teachers with nearly or over thirty years of teaching experience were in possession of the MATC certificate (5.1%) which was, at their time of graduation, the teaching qualification available. The remaining 7.6% were graduates from MCAST.

Regarding teaching experience, the majority of respondents (n=40) were in their first three years of teaching (51.9%), while nearly 10% (n=13) had over twenty years of teaching experience.

The mean number of students' contact hours per week for PE teachers was 17. This indicated no statistical difference between schools. The same goes for the total school population and the average number of students per class. Based on the recommendations of the NCF, all schools are moving towards low numbers in order to provide a more individualistic instruction. Statistics from this survey show that the

¹ Source: Physical Education Educational Officer, Malta, July 2015

average school population in Maltese secondary schools is of 484 students while the average number of students per class during a PE lesson is 21 students.

4.2.2 Part Two: CPD participation

The second part of the questionnaire aimed at generating a picture of the CPD activities in which local PE teachers participated (over a period of two years, or over a period of one year in the case of newly qualified teachers). Teachers were asked two separate but related questions: (i) whether or not they participated in the activities listed, and if they had participated, (ii) with what frequency. Research suggests that both formal and informal CPD activities held at the school can enable early embedding of CPD content in teachers' work practices (Postholm and Waeye, 2016). Meetings held during school hours within the school were attended by 97.3% of respondents. Out of these, 60% attended once a term while 16% attended once a week or more. 10.1% attended once a month while another 10.1% attended once a year. Meetings held after school hours within the school and which form part of the 2010 collective agreement², were attended by 90.3% of participants. Out of these, 64.9% attended once a term, 18.9% attended once a year while 5.4% attended only once every two years.

To fulfil the objectives of the NCF, which state that quality PD must be offered to all teachers (Ministry for Education and Employment, 2012), a number of non-compulsory seminars and courses are organised by the Education Department after school hours. These were attended by 50.7% of participants while 49.3% did not

² Collective agreement signed between the Government of Malta and the Malta Union of Teachers (2010)

attend these seminars. Out of those who attended, 30.1% attended once a year while 13.7% attended once every two years. 5.5% attended once a term while only 1.4% attended once a week. The latter, which amounts to n=1 teacher, is a supply teacher who is currently waiting for a permanent teaching warrant.

Subject-related CPD is mostly held out of school and places teachers either in a position of consumers of knowledge or, less frequently, as generators of knowledge, as in the case of the annual INSET course (Attard Tonna and Calleja, 2009). The INSET course is attended by 88% of respondents. 49.3% attend every year while 37.3% attend once every two years. Out of all respondents, 12% have never attended an INSET course and these include Independent Schools' teachers who are not obliged to attend this course.

The subject departments within secondary schools are considered as agents of change within schools and a strong influence on teachers' PD (Priestley et al, 2012). The PE departmental meeting within the school is attended by 89.3% of respondents while 10.7% said that they don't have an allocated meeting slot in their weekly timetable. Of those who do have this resource, 72% attend weekly, 9.3% have such meetings once a month while 5.3% organise a departmental meeting once a term during a CPD activity held within school. Out of all respondents, 2.7% attend this meeting once every scholastic year

When analysing participation in decontextualized CPD activities, Friedman and Phillips (2001) place difficult access to CPD activities as one of the main barriers, but in small contexts as Malta, attending these activities is more feasible. PE-related conferences in which latest studies are presented and discussed, organised annually

by the Institute of Physical Education within the University of Malta, have been attended by 67.6% of respondents, while the remaining 32.4% report having never attended any of these conferences. Out of those who participated, 39.4% attended once a year, while 26.8% attended once every two years.

Sport-related courses for PE teachers are often of relevance to PE teachers given the natural overlap that exists between PE and sport and given the content presented (Armour and Makopoulou, 2012). These courses are attended by 60.3% of respondents while 39.7% have never attended. Out of those who attended, 30.1% did this once a year, 23.3% attended once every two years while 6.8% attended similar courses more frequently, i.e. once a term.

The nature of PE and its relationship to sport, puts PE teachers in two conflicting roles. Students and policy makers continuously overlap the role of a PE teacher with that of a sports coach (Armour and Jones, 1998). Coaching courses organised by sports organisations are another CPD opportunity available for PE teachers who want to increase content-related knowledge. For the purpose of this study, such courses have been divided in two types: courses for which attendance is recognised and courses for which accreditation is given. Courses where a certificate of attendance is presented at the end were attended by 62.9% of respondents. Out of these, 30% of respondents attend once every two years while another 30% attend annually. Ongoing, monthly held sessions are attended by 2.9% of respondents.

Participation in accredited coaching courses is lower than participation in attendance recognised courses. These are usually spread over a number of months, require compulsory attendance, fulfil a standardised curriculum and end up with

assessment leading to certification (Nelson *et al.*, 2006). Out of all respondents, 36.3% participants confirmed attending an accredited course while 63.4% did not attend such courses. Out of those who attended, 19.7% attended once every two years while 15.5% attend such courses annually. These include mostly courses which lead to coaching licence renewals.

For teachers, the recent shift from centralised systems (i.e. the government) responsible of PD, onto teachers, has increased the importance of engaging in CPD activities related to post-graduate qualifications (Broad, 2015). Out of all respondents, 16.2% confirmed following or completing a post-graduate diploma or degree during these last two years while 83.8% said they did not. Out of those completing or following a qualification programme, 11.8% said they completed this further qualification over a two year period, while 5.9% said they completed the course within a year.

Teachers were asked about their participation in teachers' networks within the school. Networks of professionals are considered an ideal CPD resource on which the individual can draw upon for information, advice, collaboration and social support (Fox and Wilson, 2015). In Malta, these networks are known as Staff Development Plan (SDP) groups and are formed at the beginning of each scholastic year. Of all respondents, 81.3% confirmed participating in these groups while 18.7% said that within their school these are non-existent. Out of the 81.3% who participate, 20% meet the other teachers formally once a week or more while 24% meet once per term, and 6.7% once a month. The annual SDP day held towards the end of the scholastic year is attended by 17.3% of the participants while 14.7% said that this opportunity arises only once every two years.

The importance of CPD for teachers has led to the development of a wide variety of activities, both planned and non-planned (Forte and Flores, 2014). Apart from their participation in formal CPD, teachers were also asked about their engagement in different informal CPD. Out of all participants, 94.6% engage in informal dialogues with their colleagues, with 67.6% of them saying they do so once a week or more. About 13.5% engage in informal dialogues once a month while 8.1% say the opportunity to discuss with others arises only once a year. These 8.1% are teachers in Church Schools, whose PE department is made up of only one teacher, with no available opportunities for collaboration.

Many scholars have expressed their view that certain aspects of teaching can be experienced only through observation of good practice in class (Hart, 1987; Kohut *et al.*, 2007). Observations are carried out by 66.2% of teachers while 33.8% have never had the opportunity to do so. Out of the teachers who engage in peer observations, 25.4% did this once a week or more, 12.7% once a month while 16.9% observed other teachers once a term.

Joint teaching is described in different studies as a special kind of teacher collaboration in which two teachers share their knowledge, their planning and all responsibility towards the students (Gately and Gately, 2001; Honigsfeld, 2010; cf. Chapman, 2016). Joint teaching by Maltese PE teachers is practiced by 64.4% of teachers while 35.6% have never shared a class with another teacher. Joint teaching is practiced once a term by 23.3% of participants while 16.4% do so once a week or more.

In view of the newly implemented mentoring scheme in Maltese schools and the fact that research presents mentoring as one of the most effective means of supporting the PD of teachers (Hobson *et al.*, 2015), survey participants were asked about their experience with mentoring. Mentoring was experienced by 43.1% of participant teachers while 56.9% of teachers reported having no mentoring experience (i.e. being a 'mentor') or having not experienced mentoring (being 'mentored'). Of the 43.1% of teachers, only 3.8% mentor or are mentored as frequently as once a week, while 11.4% have experienced mentoring once during the 2014 – 2015 scholastic year. Around 10.1% have been involved in mentoring only on one occasion during the last two scholastic years, and these are mostly NQTs who experienced mentoring during their pre-service teaching placements.

The shift towards decentralisation in the Maltese educational system allows teachers to be autonomous and flexible in their teaching in order to provide a quality education which matches their students' needs. To manage and lead a differentiated classroom, teachers have to be informed (Tomlinson, 2014). Reading pedagogy-related and PE-related literature is seen by 90.1% of participants as a means of PD. Out of the 90.1%, 45.1% engage in reading similar literature once a week or more, while 26.8% read once a month. No interest in literature was remarked by 9.9% of the survey's participants.

In order for teachers to keep on implementing their autonomy effectively, the NCF encourages teachers to start relying on their own resources for personal development and progression. Personal reflection is practiced by 94.6% of all respondents with only 5.4% answering that they never reflected upon their performance. For 67.6% reflection has become an integral part of their daily practice

at school, while 13.5% engage in reflection only once a month, while collaborating with colleagues during a school-based CPD activity.

Teachers were given the option to identify any other CPD activity in which they engage (anything which was not listed). Only 2.6% of respondents said that they participate in CPD activities which are not PE or school related while 97.4% do not participate in any activity different from the ones mentioned before.

Findings now shift from descriptive data to evaluative data based on the teachers' perceptions and preferences. International studies confirm that even though PE teachers consider CPD as worthy, they still are faced with limited options in terms of PE-CPD provision (Makopoulou and Armour, 2011). This was confirmed by 82.4% of the participants in this survey who said that they would like to have more PE-CPD opportunities. For 17.6% of the participants, the current provision is adequate.

When asked to indicate the barriers hindering their participation in CPD, the majority of respondents (n=47) mentioned that family commitments, time constraints and commitments after school hours were the main barriers. Apart from these personal barriers, other teachers mentioned work-related ones such as the high workload at school (n=18) and bureaucracy in the way the Education Department functions in relation to leave allowance in order to attend these activities during school hours (n=16). Data analysed according to the three different school set-ups, shows that teachers teaching in State Schools are mostly faced by lack of support from the Education Department and the absence of a functioning teacher-substitute structure within the schools. On the other hand, teachers from Independent Schools and Church

Schools report that it is mostly their high teaching load that hinders them, together with the lack of PE-related content presented in currently available in-school CPD.

4.2.3 Part Three: Views on CPD effectiveness

Part three of the survey focused on CPD effectiveness. Teachers were asked to rate the effectiveness of the CPD activities in which they participated throughout these last two years, by indicating the level of impact on a Likert Scale from 0 (no impact at all) to 10 (substantial impact).

A combination of different activities were given a mean score of 9. These included the on-going compulsory weekly PE departmental meeting, accredited coaching courses and qualification programmes. Other activities described as having a substantial impact on teachers are activities which place the teacher in the role of an autonomous professional: reading literature and engaging in personal reflection. Coaching courses for which a certificate of attendance is awarded and informal dialogues with colleagues are also seen as effective learning experiences. With the exception of the PE department weekly meeting, all effective activities are voluntary activities. On the other hand, compulsory seminars held after school hours within the school were considered as the least effective (mean score 3).

	Mean
Seminars after school hours	3.0000
Seminars during school hours within school	5.5000
Seminars offered by the Education Department	4.0000
Annual INSET	5.5000
Weekly PE department meetings	9.0000
Conferences organised by UOM	6.5000
Sports-related courses	7.5000
Coaching courses certificate of attendance	8.5000
Coaching courses qualification	9.0000
Qualification programmes	9.0000
Teacher networks	8.0000
Informal dialogues	8.5000
Observation	7.0000
Joint teaching	8.0000
Mentoring	8.0000
Reading literature	9.0000
Personal reflection	9.0000

Table 1: Effectiveness of CPD activities

Teachers were asked to indicate the level of satisfaction they experienced regarding the quality of PE-CPD activities offered by the different providers, on a Likert

Scale ranging from 0 (not satisfied at all) to 10 (highly satisfied). 62 teachers out of 78 answered this question. The means indicate that teachers are mostly satisfied with CPD activities within the school organised by the respective PE departments (mean score = 7.6). CPD activities organised by the Education Department outside the school are rated at a mean score of 5.8 while teachers are not satisfied by activities held within the school, organised by the school's SMT (mean score = 4.7). Table 2 below shows the mean scores.

	Mean	N
CPD activities organised out of school	5.7903	62
CPD activities organised within the school	4.6935	62
CPD activities organised within the school by the PE Department	7.5806	62

Table 2: Level of satisfaction of compulsory CPD activities

4.2.4 Part Four: Effective CPD experience

In part 4 of the survey, teachers were asked to identify the most effective CPD activity throughout their career. Out of the 78 responses, the highest activity mentioned (n=19) was an on-going national PE-CPD activity held between 2008 and 2011. In an open-ended question, teachers explained why they consider this particular PE-CPD activity as the most effective. Teachers mentioned a variety of features which in the literature are associated with effective CPD (cf. Garet et *al.*, 2001; Penuel et *al.*, 2007; Desimone, 2009).

Other activities which teachers mentioned as leaving an impact, included formal, compulsory activities (e.g. the annual INSET course, teaching placements in schools during teacher training); formal but voluntary activities (e.g. coaching courses) and informal activities (e.g. dialogues with colleagues, observing good practice and learning from students' feedback). Teachers were also asked to indicate the reason why they participated in the activity they mentioned. A number of statements which the participants had to rate according to a level of agreement and / or disagreement were given. A Likert Scale from 0 to 10 was used. Apart from the fact that some of the activities were compulsory, teachers said that activities held during school hours are more effective because they are easier to attend. Relevance of content and content which addresses one's weaknesses were other reasons given by teachers. Table 3 shows in detail the mean scores.

	N	Minimum	Maximum	Mean
Knowledge on topic increased	65	3.00	10.00	8.4308
Provider and expert were knowledgeable	65	3.00	10.00	8.3846
Engaging and stimulating delivery	64	3.00	10.00	8.2500
Opportunities to put forward ideas	65	3.00	10.00	7.8769
Observation of good practice	65	2.00	10.00	8.0462
Share knowledge and ideas with others	64	2.00	10.00	8.0313
Good balance between theory and practice	65	1.00	10.00	7.8615
Content was new and innovative	63	2.00	10.00	7.7143
Content was relevant to needs	64	3.00	10.00	8.4531
Build upon existing knowledge	65	3.00	10.00	8.4923
Ideas were realistic and applicable	65	3.00	10.00	8.3846

Table 3: Reasons for effectiveness

Two open-ended questions in this section sought information about the type of impact which the particular activity they mentioned had on them and on students respectively. Data collected show that the majority of teachers became exposed to

new teaching methods (n=16). Some teachers mentioned specifically the TGfU approach. Other teachers confirmed a general increase in knowledge (n=14), an improvement in classroom management skills (n=11), better lesson planning (n=9) and a more positive approach towards CPD (n=8).

Regarding impact on students, the majority of teachers mentioned that they noticed an increase in participation during lessons (n=17) and an increase in motivation due to newly introduced PE activities (n=15). Enjoyment during lessons (n=13), better team-work (n=10) and better inclusion of students with special needs (n=9) were other types of impact noticed by teachers.

4.2.5 Part Five: Own Insights

The final section of the survey ascertained teachers' perceptions about the quantity of CPD opportunities available to them, both from the Education Department and by the school in which they worked. On the question of whether they felt like they were given sufficient CPD opportunities by the Education Department, 65.2% said that there are not enough opportunities apart from the annual INSET course, while only 34.8% think that opportunities are adequate. In relation to opportunities given by the school, a slight majority of teachers (52.2%) said that the school offers them enough CPD opportunities, while 47.8% said that the opportunities are not enough.

In the last two open-ended questions, teachers were asked to suggest what their own school and the Education Department could do more broadly to provide more effective opportunities. Suggestions were mostly related to logistical and organisational issues that facilitate CPD participation. Regarding their own school,

teachers indicated that a reduced teaching load would enable them to engage in more CPD (n=27). State and Church Schools' teachers also mentioned financial considerations here, which they felt would further support their engagement in CPD activities (n=12). Other teachers (n=9) commented that more slots need to be allocated specifically for PE-CPD in the weekly time-table.

Suggestions addressing the Education Department varied from those related to mechanisms that establish and safeguard efficacy of CPD to suggestions related to the features of effective CPD. Teachers suggested a better and more sustained collaboration with the University of Malta and with local sport entities (n=14). In terms of the quantity of CPD opportunities, teachers emphasised that CPD activities should be continuous and that they should be followed-up and formally evaluated in order to identify efficacy and educational impact (n=10). Suggestions related to quality of CPD included the need of presenting relevant content (n=7). In order for content to be relevant and to match teachers' needs, teachers suggested that consultation with teachers regarding the choice of content is a must (n=12). The PE Department should encourage collaboration amongst all stakeholders (n=9) because teachers believe that through collaboration, providers will get a clear idea of what are the challenges and areas of major development to be tackled in CPD activities.

4.3 Semi-structured Interviews

As mentioned in the previous chapter n=20 teachers participated in Phase One of this study. The findings from these interviews are presented below and are arranged into four broad categories: (i) current PE-CPD provision for teachers in Malta; (ii) teachers'

perceptions about CPD, (iii) professional collaboration and (iv) sources of knowledge. Subheadings are then used where necessary in order to break down the data collected. Answers from the open-ended questions in the National PE-CPD survey are presented in this section too.

4.3.1 Current PE-CPD provision for teachers

The main PE-CPD opportunities for Maltese teachers discussed in this section include: the annual INSET course organised by the Education Department; compulsory activities organised by the school throughout the scholastic year as part of the teachers' collective agreement; and the school's PE Departmental weekly meetings which form part of a teacher's weekly teaching load in the majority of schools.

INSET courses are part of the collective agreements of all teachers in Malta which bind the Education Department to organise a 3-day INSET course per scholastic year. These are compulsory for State Schools' teachers while other teachers are invited to attend. Independent Schools naturally have their own policies regarding CPD, and they organise courses within their respective schools.

Apart from the annual INSET course, throughout the year, schools are responsible for organising their own PD activities. In State Schools teachers have one activity per term during school hours, one per term after school hours, as well as a whole staff development day towards the end of the scholastic year. Teachers in Church and Independent Schools, in comparison, attend on average one whole day per term.

In the following sections the current PE-CPD provision will be explained. Teachers share their experiences about how the current provision and their preferred ways of learning match up against the core features of effective CPD, including content, delivery, ways of active learning, tailored and sustained CPD.

4.3.1.1 Content of current PE-CPD provision

The agenda of the current PE-CPD provision available for Maltese teachers is mainly dictated by what is being implemented in the local educational system. Participants who teach in State Schools commented that most of the meetings held within the school are most commonly used for tabling and discussing the introduction of new policies by the Education Department or the evaluation of policies which are already being implemented in schools. The main topics which were discussed in the years across which the teachers in this study were prompted to recall, include inclusion, co-education, assessments and the introduction and implementation of the new NCF. These topics were mainly discussed during formal CPD activities, including the annual INSET course.

Broadly speaking, therefore, PE teachers considered the INSET course as an effective PE-CPD activity when new PE-related policies were going to be implemented. The INSET course is perceived as the initial and primary opportunity for teachers to become familiar with necessary changes and therefore the CPD mechanism acts as an initial conduit for change management. Teachers recalled INSET courses during which a new syllabus or new content was introduced and others where new teaching methods were presented to the teachers. Teacher 2, for example, recognised this and

stated that *'the INSET helped us to go through the various changes we went through these last years'* (Teacher 2, 25th March 2015). A more experienced teacher, Teacher 9, recalled some of the major changes which teachers had to embark on over the course of the past couple of years':

'It helped me a lot especially when something new is going to be implemented in the school. I don't mean when it was only content related but also when topics related to new teaching methods and new policies such as, for example, the new co-educational system were discussed' (Teacher 9, 29th April 2015).

Regarding co-educational schools, Teacher 19 and Teacher 8, both female teachers working in a State School, recalled the INSET course held in 2014 which took place immediately before the implementation of this new system. Teachers used to single-sex schools, felt the urgent need to be trained in methods and manners which one would have to face in front of a mixed class. This CPD's use-value was perceived as very important by teachers because it tackled head-on an issue which was fundamentally and immediately relevant to the teachers' needs.

'When the co-ed was being introduced in schools, we had a very relevant discussion during the INSET course. Since it was a discussion with teachers who had already experienced co-educational classes, it was very useful' (Teacher 19, 9th June 2015).

Other, longer-term, changes which Maltese teachers have experienced over the course of the past ten years include the shift from segregated to mainstream schooling, and the implementation of the new NCF with its emphasis on differentiated teaching. PE teachers feel that issues of differentiated teaching and mixed-ability classes are not a matter of high importance for them since PE teachers have always been faced with students of different abilities in physical activity. This results in

teachers commenting that on these occasions the INSET course does not match teachers' needs.

'I think that INSET courses are there only because they are part of the teachers' collective agreement and thus the EO is obliged to do them. The agenda is always set by the providers and the teachers have no say at all' (Teacher 17, 29th May 2015).

Teachers commented on the fact that, even for PD sessions held and organised by the school, content is decided by the school's administration and therefore topics rarely address directly PE teachers' needs. This point was recurrent throughout all semi-structured interviews, with teachers recognising that PD sessions are effective only when the content presented is related to the school's SDP.

'Certain sessions during which we plan for school development are more relevant as we spend the whole session working in groups on issues related to us' (Teacher 9, 29th April 2015, State School teacher)

'PD sessions are effective when they are related to policies which will affect the running of the school directly' (Teacher 5, 21st April 2015, Church School teacher)

'We work on different topics which don't always concern the PE department but, since we are part of the school, we still find aspects of it relevant for us' (Teacher 15, 14th May, Independent School teacher)

Teacher 14, a teacher in an Independent School, explained that, even though content dealt with during PD sessions at her school is more general, it often addresses the teachers' professional needs. She recalls in particular the last session which dealt with learning styles.

'Most sessions are related to us as professionals, not as teachers of a particular subject. The last session was about the different learning preferences. We started with learning styles within the teacher, and then we transferred to students' (Teacher 14, 11th May 2015)

Naturally, PE teachers form part of the whole staff, and general sessions are geared towards their development too. Even this process, which, when organised effectively, could easily focused on the development of domain general or transferrable skills relevant to all teachers, can be met with resistance. In these contexts teachers perceived that, at times, CPD providers and the schools' administration tend to detach themselves from what is really needed by teachers and produce instead content which might be repetitive: *'the providers are not aware of what we are doing in schools, that's why they keep repeating content'* (Teacher 3, 10th April 2015). The comment about repetitive content was mentioned by no less than five other teachers.

'Throughout these five years, I've attended lots of PD sessions dealing with inclusion. PE teachers have always been faced with mixed ability students. Not all students are sports-oriented, thus for us having different abilities in class is not something new' (Teacher 3, 10th April 2015).

'At times CPD provision tends to de-motivate lots of teachers because we end up attending repetitive courses' (Teacher 20, 15th June 2015)

'Unfortunately we don't get enough CPD opportunities. At times, the only activities we attend tend to present us with always the same topics' (Teacher 6, 23rd April 2015)

Teacher 19 suggests that in order to avoid repetition, teachers should be more directly involved in the planning of these CPD activities. This will lead to an equilibrium

in CPD where provision includes activities which address both the personal and the professional development of teachers.

'I would give the opportunity to teachers to put forward their experience, especially teachers teaching in different school set-ups. Listening to other teachers' experiences of how they teach similar content but in a different way, can be very valuable' (Teacher 19, 9th June 2015).

A male teacher teaching in a State School said that teachers should be given options of courses to choose from, i.e. given more 'agency'. It should not always simply be a case of organising one course for the whole population of teachers as this results in being overly homogenous and, therefore, fails to recognise individual differences. The process then potentially inhibits development, given the acknowledged effect on teacher motivation.

'This year (2015) I wanted to attend a particular INSET related to Teaching Intermediate PE. I was not allowed since I was forced to attend a course related to teaching PHE content which I have already been teaching for the last two years. This de-motivates us teachers because we end up attending repetitive courses' (Teacher 20, 15th June 2015)

There is obviously some variation experienced across the school types from which data were collected. Teachers working in State Schools consider the INSET course as their main annual PE-CPD activity and every year they attend with the expectation that it will address their main concerns and demands. The situation is different in Independent Schools where, in one particular school teachers choose whichever INSET course they would like to attend.

'As part of our contract in our school, we have to attend at least one INSET course yearly. I try to choose courses which are very relevant and I try to vary them every year so that I avoid repetition of content' (Teacher 15, 14th May).

Findings show that it is only during the weekly PE departmental meeting that PE teachers are exposed to continuous PE-related content. In the majority of schools, this meeting forms part of each teacher's timetable. Most teachers highlight its importance especially during the first weeks of a scholastic year, when they discuss syllabus content and logistical issues. Across the year then, the agenda is continuously being set by the teachers themselves based on the needs of teachers.

Teacher 10, who teaches in an Independent School where no PE meeting slot is allocated in the teachers' time-table, expresses his concern and would like his school's administration to take it in consideration in the forthcoming scholastic years. Teacher 10 goes on explaining his reasons for wanting this weekly slot, '*my colleague is now in her 35th year of teaching, I am only in my 2nd and the gap between how we teach is enormous.*' This weekly PE meeting could help Teacher 10 bridge the gap between him and his colleague.

A degree of agency in relation to the choice of CPD activity, results in teachers who are more motivated to learn. During these interviews, teachers were also invited to offer suggestions about what they would find valuable in future CPD activities. Nearly all of the teachers interviewed (n = 18), irrespective of which set-up they work in, suggested they want more voice in the choice of content to be tackled during CPD activities. Participants in the national PE-CPD survey were asked to identify areas of potential improvement which they would like to see covered in future CPD activities. Unsurprisingly, since the participant teachers are all PE teachers, the need for more specific sport-related content was mentioned by the majority of teachers. Further training and development vis-à-vis the main points of the NCF including differentiated

teaching, cross-curricular teaching and the LOF, were also suggested, but teachers emphasised that these topics should be specifically related to PE.

For some PE teachers, recent changes led to a lack of stability in PE with content presented to teachers during CPD activities not reaching its aim of equipping teachers in fulfilling the subject aims. Instead, *'these continuous changes are making CPD activities appear irrelevant and above all are demotivating the PE teacher'* (Teacher 2, 25th March 2015). PE teachers are now hoping that with changes even at the helm of the PE Department, a long-term plan for PE will be launched in which both teachers' and students' needs will be addressed. Teacher 4, who at the time of the interview, was a NQT, put forward his expectations in the forthcoming CPD activities. He expects that future CPD activities clear all his doubts and help him settle down in his career.

'I hope that it really will be the way forward. We need to be sure of where we want our subject to be. For example I am currently still unsure of what is expected from us PE teachers: if we are teaching PE or if we are coaching' (Teacher 4, 10th April 2015)

4.3.1.2 Format and delivery of current CPD provision

In the previous section, the presentation of interview data focused predominantly on the issue of the nature and ownership over CPD content. Teachers want to be more involved in the decision-making process, to have more agency, and more options when it comes to the content covered in CPD sessions.

Teachers had positive comments about activities held during school hours and during which issues related to school development are discussed. Instead of listening

to lectures, during these sessions, teachers become the protagonists together with the administration of the school. Teacher 3 and Teacher 9, both teaching in a State School comment about the effectiveness of these sessions where teachers, *'....divide in groups, and discuss issues related to the school. Most of the time, we plan the forthcoming scholastic year'* (Teacher 3, 10th April 2015). These sessions are considered effective even by teachers teaching in Church and Independent Schools, *'we work mostly in small groups in order to plan policies and to suggest ways of implementing them'* (Teacher 5, 21st April, Church School teacher). An Independent School teacher explained that during their CPD activities,

'We open up for discussion where all teachers are invited to put forward their suggestions. Sometimes we are divided in groups and sometimes we work as a whole school. We come up with ideas which we then present to our SMT' (Teacher 15, 14th May 2015, teacher in an Independent School)

Focus now shifts on teachers' opinions about the effectiveness of CPD provisions, in terms of both the format, mode and manner of delivery. The reason for this focus is that teachers across the cohort interview commented directly on the fact that the topic of the content presented during a CPD activity at times directly affects the format and the delivery of the session. For example, when asked whether they preferred formal or informal types of CPD, teacher 16 explained:

'I think it depends on the objective of the CPD activity. If we are discussing issues related to particular students' behaviours, then it has to be informal. But if I am researching different teaching techniques, then it has to be something formal where I get exposed to what is being done in other schools' (Teacher 16, 27th May 2015).

The majority of teachers interviewed said that they prefer informal CPD activities, as these typically fit better into their everyday activities and the daily routine. However, teachers also acknowledged that, at times, formal CPD activities are both necessary and appropriate, and that they can be beneficial especially when there are known experts delivering the sessions.

4.3.1.3 The role of experts in CPD

The role of the expert during a CPD activity is viewed differently by teachers with different years of experience, though there is a general agreement that experts tend to provide CPD sessions related to task-involving skills, which teachers understand and accept. When it comes to how teachers of different years of experience view experts, teacher 4, an NQT, emphasised the value of experts since they have a wealth of experience to share with teachers, especially with new teachers like him: *'I believe in the ability of an expert to share knowledge. The expert definitely has more experience than you.'* Teacher 19 stresses the fact that experts share knowledge which is based on research, *'In a formal activity, experts can contribute a lot because they are very knowledgeable and their work will be based on research.'* On the other hand, a teacher with around 30 years of experience said that at times experts are detached from reality, and present irrelevant content, *'they have no idea whatsoever about PE, and throughout the years, listening to these experts destroyed my initiative'* (Teacher 7, 23rd April 2015).

Without undermining the role of experts in delivering CPD activities, some of the teachers interviewed recognised the fact that certain experts deliver sessions with the

sole aim of promoting their own agendas without even being directly involved in schools. This is a very different form of ego-involving activity, which bears little or no relationship to developing either the teacher or the child who will be subsequently affected. Teacher 9, with over 30 years of teaching experience, comments that, *'Some of the experts you can easily relate to, while others are people who have totally no idea of what is happening in school'* (Teacher 9, 29th April 2015). Teacher 17 was even more cautious in his assessment of this mode of delivery stating that, sometimes, *'us teachers just go there to listen to experts who have no idea of what is happening at school'* (Teacher 17, 29th May 2015). These findings present two different scenarios with more experienced teachers attending sessions where they listen to these experts passively and take nothing on board while NQTs listen to the expert and then try to act upon this knowledge by implementing it in class.

A related factor to these 'mode of delivery' concerns, is the manner in which the content is being delivered by experts, with teachers recognising that this can often be ineffective: *'These sessions too often include over an hour long presentations and then, during the last ten minutes, we are allowed some question time. Ten minutes at about 5pm is not enough at all'* (Teacher 16, 27th May 2015, teacher in a State School). This results in: *'teachers ending up very passive. We just sit down to listen and then occasionally we are divided in groups and we do some discussions'* (Teacher 2, 25th March 2015, teacher in a State School); *'we just listen to lecturers and we have no time to put forward our opinions...some teachers don't even pay attention, frankly'* (Teacher 6, 23rd April, teacher in a Church School). The way of delivery contrasts with the learning preferences of PE teachers which tend to shift more towards the active-physical-sensory end of the learning spectrum.

In a hardly radical suggestion about the nature and place of expertise within CPD delivery, some teachers suggested that CPD providers should just make more use of the range of expertise which teachers obviously have. Teacher 2 recognised that this would even have the additional benefit of managing relatedness issues: *'I would invite more speakers who are people working within the school. They might be teachers themselves who just share their experience'* (Teacher 2, 25th March 2015).

Teachers pointed out that they want to be consulted and appreciate when they are involved in learning opportunities and in the evaluation of their impact. The following section will discuss the relationship between follow-up and effectiveness of CPD activities, and what teachers think about attending a sustained CPD activity.

4.3.1.4 Follow-up and sustained CPD activities

Each of the teachers interviewed, irrespective of their years of experience or the type of school within which they worked, acknowledged the importance of broader professionalization considerations when engaging in CPD activities and not simply focusing on CPD content. Teachers were able to think about more strategic issues vis-à-vis their development. They recognise that it is 'professional development' and not simply 'professional competence' which is at stake in CPD activities, and that the former requires a longer term approach. Amongst the many and varied explanations teachers reported in the interviews, common to each of them was an awareness of how both PE-related content issues but also policy issues impact up their professional status and daily practice. Teachers were at least committed to the notion, in principle, that CPD should aim at maintaining and improving professional standards. To make

this a reality, teachers emphasised that effective CPD must be continuous, not just a one-off activity with no follow-up, refresher or evaluation.

The annual INSET course held by the Education Department, which is mostly attended by teachers working in State Schools is one such activity. This three-day INSET is held either during the second week of July, exactly before the summer recess, or during the third week of September, exactly before the start of a new scholastic year. While recognising the obvious rationale for its placement here, teachers question the effectiveness of holding the main annual CPD activity during the summer months: *'Attending a course in July, during the summer recess, does not motivate me at all. I believe that organising something continuous is more effective'* (Teacher 17, 29th April 2015); *'Not very effective because the INSET is organised after the scholastic year, for a very large group'* (Teacher 19, 9th June 2015). The simple fact of matter here is that the course is completely decontextualized. Having just completed the scholastic year, or having yet to begin, teachers find it difficult to ground the content and subject matter. In fact, with reference to when the INSET is held especially in July, two months away from the new scholastic year, Teacher 20 felt that the timing is totally wrong because, *'Even though one-off formal courses might include valuable information, you have to wait to apply this information in class. One tends to forget or lose interest easily'* (Teacher 20, 15th June 2015).

Another teacher mentioned the compounding fact that State School teachers are only invited to attend one INSET course every two years. Not only is the content being delivered not immediately relevant to teachers but such a system runs the risk of content eventually becoming irrelevant for teachers. The extent of this gap even has teachers acting outside of the boundaries of compulsory activity, as Teacher 9 admits:

'I also believe that all teachers should attend annually, not only by invitation one year or another. In fact, at times, I attended even though I wasn't obliged too because I believed I had some weaknesses which needed to be addressed' (Teacher 9, 29th April 2015)

Continuity of provision is therefore crucial for the teachers involved in this study. Those interviewed who happened to have been teaching for more than five years made particular reference to a sustained CPD activity, which was held between 2008 and 2011, and which, during these years, actually replaced the annual INSET. The form of the activity was a weekly, 1.5 hour sessions held during school hours and during which PE teachers from State Schools used to meet with the EO to discuss, plan and evaluate PE-related issues on a week-to-week basis. The majority of participants, described this longer-term activity as being the most effective PE-CPD they have ever experienced: '*the weekly meetings helped all PE teachers in Malta build a strong rapport since we met every week*' (Teacher 1, 25th March 2015). Teacher 18, who has never received any formal training in teaching PE, found these sessions effective, especially in the way in which they were organised to take advantage of the range of experience and expertise available within schools: '*We used to observe other teachers doing a lesson in a topic in which they are considered experts. Then we practiced activities together*' (Teacher 18, 29th May 2015). Teachers had the opportunity to not only discuss, but also apply what they learnt in class, and then the following week they would give and receive feedback on the basis of how this new knowledge played out during lessons in practice.

A similar CPD activity which was organised specifically for Church Schools' teachers was deemed similarly effective: '*It was a weekly course specifically for Church Schools and we received practical ideas to implement in class through hands-on*

activities' (Teacher 6, 23rd April 2015). The Church School CPD provider recalls these sessions as the best example of professional collaboration amongst PE teachers in Church Schools:

'Professional collaboration was very evident with teachers taking it very seriously, both as givers and as receptors. Teachers became a point of reference to each other and they became comfortable in seeking help. The social aspect of these activities was also beneficial especially for teachers who are the only PE teacher in their respective school' (Head of Department, 17th March 2016)

The popularity of these sessions resulted in other Departments starting to organise similar CPD sessions during school hours for other teachers. This led to problems related to time-tabling and in view of complaints by SMTs, the Education Department terminated these activities.

Teachers said that from their own experience, CPD activities which were effective because they were either continuous or were followed-up were mostly informal type of activities, '*Informal is always important because it can be continuous*' (Teacher 14, 11th May 2015). Other teachers gave examples of how they experienced effective, continuous, informal CPD.

'Informal CPD is the most effective because it can happen anytime especially with people with whom you feel at ease and with whom you share same problems and experiences since you work within the same context' (Teacher 19, 9th June 2015)

'Informal can be present everywhere. At school, I always try and identify the experts....other teachers might be coaches too or athletes themselves. So definitely, I seek to engage in continuous discussions with these teachers in order to gain ideas from them' (Teacher 9, 29th April 2015)

'Informal CPD is something which can leave an immediate impact. Observing good practice is something which you see and know that it works. Then you can apply it, discuss once again, arrange and evaluate' (Teacher 20, 15th June 2015)

This is not to say that there are no continuous activities in place within schools in Malta which facilitate professional exchange and potentially development. The only compulsory PE-CPD activity which PE teachers currently engage in on a continuous basis in State and in some of the Church and Independent Schools is the weekly PE Departmental meeting held within the school. All PE teachers attend this meeting during which PE-related issues are discussed. These include issues such as the use of sports facilities, organisation of sports activities, the need for improved PE equipment and PE-related issues to be included in the SDP. The latter topic is mostly discussed in the weeks before the School Development Day when PE teachers have to formulate their action plan for the forthcoming year. In some Church Schools, these meetings are non-existent due to the fact that in some schools, there is only one PE teacher. The interviewed HoD said that in order to help these teachers eliminate their sense of isolation, collaboration between sports associations and the school is encouraged instead, *'I liaise with local sports associations in order to provide resources to schools and to provide coaches who might assist the teachers'*.

Despite the formal pretence of these departmental meetings, teachers commented that, since they all share the same staff-room, they don't typically await this weekly slot in order to meet and discuss. The staff-room houses a 'hidden curriculum' of PE-CPD across these contexts, and which, at the very least, adds continuity to the matters arising. This process is not unrelated to the departmental meeting. For example, teachers all commented that discussions held during the weekly meeting are simply extended throughout the rest of the week: *'I can say our meeting is continuous since we are in the same staff room thus we spend literally the whole day together'* (Teacher 2, 25th March 2015); *'We are three PE teachers in the same*

staff-room and thus we can discuss daily and not just wait for the weekly slot in our time-tables' (Teacher 17, 29th May 2015); *'We are together most of the time, and thus we discuss continuously not just during that weekly slot'* (Teacher 3, 10th April 2015). Teachers from Church Schools stated that, although they don't have a weekly slot, the fact that they share the same staff-room helps them to discuss matters arising continuously and in a more organic manner. Teachers who have this weekly slot said that when it comes to organising activities or discussing PE budgets, these meetings and their respective follow-up sessions take a more formal stance: *'Follow-up is continuous together with input from the SMT'* (Teacher 9, 29th April 2015); *'We find this weekly slot very useful especially when we are organising an activity'* (Teacher 3, 10th April 2015). Other teachers mention the fact that setting an agenda and minute taking add to the effectiveness of this meeting: *'It is continuous and when minutes are jotted down, it is easier to stick to decisions taken'* (Teacher 8, 27th April 2015).

Teachers put forward suggestions about how a PE-CPD activity can leave an impact. These suggestions show that teachers value CPD and consider it a must in their profession. The next section will analyse how PE teachers define what is CPD and its importance, followed by the reasons which are hindering the teachers' current participation in CPD.

4.3.1.5 Tailoring of PE-CPD activities

In a previous section, where content of current CPD activities was discussed, teachers commented on the fact that activities organised within the school address mostly general school issues, while on the other hand, the annual PE-related INSET course, is not always relevant to all contexts. The recent changes in the PE syllabus

included the introduction of new sport areas and new teaching methods which require particular set-ups for which certain schools are not adequately equipped: *'It might be, that certain content works in a particular context but in others not'* (Teacher 2, 25th March 2015); *'Lots of schools are not equipped to carry out certain activities listed in the syllabus, thus when tried to be applied at school, they become irrelevant'* (Teacher 8, 27th April 2015).

For these CPD activities organised by the Education Department, teachers teaching in Church Schools and in Independent Schools are invited to attend on a voluntary basis. These teachers find these courses irrelevant to their context due to the different number of PE lessons per week and the lack of sports facilities in certain schools which makes it very difficult for teachers to cover the whole PE syllabus.

'Content was irrelevant and not applicable to my school. It was about the syllabus of PE in state schools where they have 3 lessons a week. In my school (a Church School) we only have 2 lessons a week so this syllabus is irrelevant for us' (Teacher 5, 21st April 2015)

'Parents and SMTs pressure Church Schools' teachers to abide by the content mentioned in the national PE curriculum. Unfortunately, certain schools are still very small and lack outdoor facilities and space for PE. In certain schools, PE teachers do not have the space to do basic things like running and gymnastics' (Head of Department, 17th March 2016)

Teachers prefer to engage in CPD activities relevant to their contexts and their own needs. CPD sessions during which teachers were left to choose content, turned out to be very effective. Once more teachers refer to the weekly sessions previously organised by the EO: *'we used to choose the lessons which we wanted to observe'* (Teacher 18, 29th May 2015), *'we were exposed to different PE-related issues and we*

could choose which areas we wanted to refresh' (Teacher 19, 9th June 2015). Another teacher said that now, whenever she finds a relevant course, she does her best to attend: *'I attended even though I wasn't obliged too because I believed I had some weaknesses which needed to be addressed'* (Teacher 9, 29th April 2015). In Independent Schools, it is the norm for teachers to choose whatever CPD activity they are interested in as engagement in regular CPD is a requisite in each teacher's contract.

'As part of our contract in our school, we have to attend at least one INSET course yearly. I try to choose courses which are very relevant and I try to vary them every year so that I avoid repetition of content' (Teacher 15, 14th May 2015)

Apart from being allowed to choose which activity to attend, teachers gave other suggestions on how current CPD activities can be tailored towards the needs of PE teachers. The Church Schools' CPD provider explained the way teachers are involved in the planning phase of CPD activities, *'Every meeting that we do, we conclude it with a feedback questionnaire. The last question always encourages teachers to list what should be the next step and what are their own development needs.'* Good planning is the ideal start for an effective activity which addresses teachers' needs. Teacher 8, a teacher teaching in a State School, suggested that PE-CPD providers should: *'go round the schools during the scholastic year, speak to teachers and get the feel of what is happening in schools. Based on this research, they can then plan the INSET course'* (Teacher 8, 27th April 2015). To address once more the importance of follow-up, teacher 8 suggests that providers should *'keep continuous contact with teachers, maybe even using the social media, where teachers put forward their needs, their difficulties and their suggestions'* (Teacher 8, 27th April 2015).

Even CPD delivery should be tailored to the ways teachers learn. Teachers commented on the fact that since PE is a practical subject, hands-on activities should be included: *'I would do group work, sharing of ideas, interactive sessions. PE teachers are not people who remain focused for a long time if they are passive'* (Teacher 1, 25th March 2015); *'I would include more practical activities. I think PE teachers learn by observing and then having a go themselves'* (Teacher 3, 10th April 2015); *'I would invite some students and teachers observe each other doing lessons with them'* (Teacher 2, 25th March 2015). An NQT who had yet to experience his first PE-CPD activity commented that:

'PE is a practical subject, thus we teachers need to learn through the practical too. It is important that the teacher assumes the role of the student, so that he can be aware of what the students are experiencing throughout a particular activity' (Teacher 4, 10th April 2015)

The number of suggestions given by the participants of this study show that teachers value CPD and consider it a must in their profession. The next section will analyse how PE teachers define what is CPD and its importance, followed by the reasons which are hindering the teachers' current participation in CPD.

4.3.2 Teachers' perceptions about CPD

Another fundamental component of the semi-structured interview protocols was to address teachers' perceptions about CPD. All teachers interviewed considered CPD vital in what feels like a turbulent and continuously changing educational system. CPD often feels less about developing competencies than it does keeping abreast with changes. CPD for teachers is therefore caught between addressing either subject-

related issues or more general issues: *'CPD is a must because sports content changes continuously and as teachers we also need to keep in touch with issues such as curriculum changes and new policies'* (Teacher 3, 10th April 2015). This double-bind of CPD creates tension amongst teachers. In order to develop professionally, teachers need a period of stability during which they focus on their own competencies. Other teachers mentioned that teachers should embark on a learning journey with the aim of *'keeping up the standards and improving at the same time'* (Teacher 14, 11th May 2015). Teacher 4 commented that actual learning won't occur during the CPD activity itself but *'after implementing this new knowledge into practice, learning really occurs'* (Teacher 4, 10th April 2015). In order to reduce this tension, there must be a balance between periods of drastic changes within the educational system and which teachers have to accustom to, and periods where there is the need for a deep change in the teacher's competencies as a professional.

All teachers agree that irrespective of this tension, all CPD must be approached with the ultimate goal in mind related to impact on their knowledge, their performance and their students' performance: *'If a teacher continues to learn, then this turns out to be beneficial also for the students'* (Teacher 11, 11th May 2015). Others consider CPD as something that can happen any time and at any point of one's career. Teacher 15, a male teacher who has been teaching in the same school for 18 years, considers his everyday job as constant professional development, *'every lesson is a learning experience'* (Teacher 15, 14th May 2015). Any situation can result in a learning experience and any person with whom you are in contact with can offer one, *'One must be aware that we can learn from anyone'* (Teacher 20, 15th June 2015).

The importance of engaging in CPD is also highlighted in the latest collective

agreements for teachers. Teachers in Independent Schools have to participate in a minimum of one CPD activity per scholastic year as part of their respective schools' contracts. State Schools' and Church Schools' teachers are also encouraged to attend CPD activities, both compulsory and voluntary. When asked whether they have noticed an improvement in CPD provision in the years following the 2010 collective agreement, the majority of teachers said that nowadays there are more opportunities for teachers' PD, but on a more general level and not PE-related; *'CPD has gained lots of importance and there are more opportunities nowadays, but unfortunately they are more relevant for class based subjects,'* (Teacher 8, 27th April 2015); *'CPD opportunities increased but are more related to teaching methodologies and general pedagogical issues'* (Teacher 9, 29th April 2015). Teachers are here faced with further tension created by the contradictory collective agreements which present CPD activities based on what is wanted by the providers but not on what teachers need. Within the collective agreement for teachers there is no link between CPD and teachers' specific needs. The latest collective agreement treats all teachers the same regarding CPD provision.

Teachers commented that when a CPD activity addresses needs and demands that teachers have in relation to new policies and knowledge dictated by the Education Department, it turns out to be effective. When they seek CPD opportunities that address their professional needs, teachers are faced with numerous barriers which hinder their participation in CPD; *'Unfortunately there is still lots of bureaucracy, apart from that you need to look for opportunities out of your own initiative'* (Teacher 1, 25th March 2015); *'Too much bureaucracy and people who are at the helm of the educational system have no idea whatsoever about PE.'* (Teacher 7, 23rd April 2015).

These barriers show that in Malta, CPD dictated by the providers (top-down) is very effective while when it comes to address teachers' needs (bottom-up), the CPD structure and provision is completely fragmented and therefore ineffective.

CPD providers must feel more the needs of teachers and this by visiting schools often to experience the context first-hand. Teachers are aware of the current situation where there are only two HODs responsible of all State Schools and thus it is the role of the Education Department to invest in more human resources at departmental level. This investment in monitoring will lead to more interaction between providers and teachers throughout the whole scholastic year. For the interviewed teachers, the role of the CPD providers goes beyond monitoring of subject content and syllabi fulfilment. A teacher comments that CPD providers are '*there to help us and guide us, to listen to our problems and maybe to observe good practices which they can then share with all of us*' (Teacher 2, 25th March 2015). When referring to their rare visits at school, teacher 17 says that during these visits, the EO or the HOD '*needs not only to discuss theory but explain good practice*' (Teacher 17, 29th May 2015) thus changing the idea that they '*represent only the syllabus and its content*' (Teacher 18, 29th May 2015). This evaluation of teachers' needs across the whole sector can be then fed into specific PE-CPD design and delivery.

More experienced teachers believe that the presence of CPD providers in schools is an asset to teachers' professional development. This is based on their past experience when there were more Heads of Department regularly visiting schools. A teacher with over 35 years of teaching experience says that in more than one occasion, she asked for the providers' intervention when she had difficulties related to certain subject content: '*I appreciated a particular EO who used to come and even engage*

during lessons. This made him aware of what challenges we were facing' (Teacher 9, 29th April 2015). Other teachers want the CPD providers to be the voice of the teachers. This was mostly pointed out by teachers who are still in their first years of teaching and who have not experienced much interaction with the providers; *'the HODs should be the messengers by making their presence felt in schools, discuss with us and put forward our suggestions and complaints'* (Teacher 3, 10th April 2015) while another teacher sees these providers as the people who can offer stability to PE,

'We need a sense of continuity and it is here that the HODs need to make their presence felt. First of all, HODs remain more in their post than the EO, so it's them who should be the link. We need a long-term programme, so that we have stability' (Teacher 4, 10th April 2015).

The PE EO is currently responsible only for State Schools' teachers with Independent Schools and Church Schools having their own HODs. An NQT in an Independent School comments that it would be beneficial for all if local PE teachers respond to the same Educational Officer,

'I believe the national EO must represent us too and start meeting us teachers from Independent Schools. These meetings should be regular, at least once every two months. After all we are teaching the same subject' (Teacher 10, 7th May 2015)

Teachers believe in the role of the CPD providers and want to be more in contact with them. The interviewed HOD believes that bringing schools closer together should be one of the main aims of CPD providers. Within the Church Schools' set-up, the new Catholic Secretariat supports the idea of bringing schools together and it is now the providers' role to be the link between the different schools. To achieve this, the HOD says that, *'an encouraging SMT is needed to pave the*

way for effective collaboration between schools.'

This continuous contact leads to professional collaboration not only between teachers and the CPD providers but also amongst teachers themselves. The lack of presence of providers within the schools is hindering the development of more collaboration amongst teachers, especially amongst those teaching in different schools. This lack of collaboration must be addressed in order to fulfil the teachers' positive views on the effectiveness of collaboration. Teachers are already experiencing a degree of collaboration amongst themselves within the respective PE departments at school.

4.3.3 Professional collaboration amongst teachers

Within schools, and across the teaching week, teachers experience many different opportunities in which to engage in professional collaboration. Naturally, logistics aid in creating these opportunities due to the fact that all PE teachers within the same school share the same staff-room and thus they meet continuously throughout the school day. While we have already discussed some of the ways in which these informal meetings enable teachers to continue working on the issues tackled during the weekly departmental meeting, the teachers interviewed also described more formal ways in which they collaborate, gave examples of how they share good practice and commented about the benefits of observing good practice.

4.3.3.1 Formal collaboration amongst PE teachers

In descriptions of day-to-day meetings, PE teachers commented that they mostly discuss organisational and logistical issues. Sport, as we have mentioned

in previous section, gives PE teachers a concrete subject matter upon which their interests converge. Sports activities discussed range from those which are internally organised within the school, to national activities which are externally organised and hosted by the Education Department. Participation in these latter opportunities involves substantial cooperative activity, including both the selection of participants and logistical duties. Teacher 1 who teaches in a State School explained that, '*whenever we need to discuss about Sports Day or about outings, we discuss whenever we find the time. We are in the same staff-room so it is easy to meet,*' (Teacher 1, 25th March 2015). Teachers collaborate easily on similar external issues but then do not find it easy to collaborate on issues related to subject and pedagogical content.

'When it comes to organising outings each one of us has a specific role, for example, choosing the venue, preparing forms for students, collecting money. When it comes to organizing an activity such as sports days we collaborate a lot in the organisation' (Teacher 3, 10th April 2015)

Teacher 1 explained that roles in the organisation of activities are divided according to expertise and seniority, depending on what one is responsible of:

'One of the other teachers is an expert on outdoors, so organisation of outdoor activities is definitely in his hands. Regarding for example budgeting of PE department, I take the initiative to deal with the SMT since I am the senior PE teacher within the school' (Teacher 1, 25th March 2015)

Teachers commented also that at the beginning of the scholastic year they collaborate together on dividing the syllabus content in order for lessons to run smoothly without teachers having to share the same sports facilities, equipment and resources. Teacher 4, an NQT, appreciated this type of collaboration which helped

him settle down faster within the school, *'The first thing we did was discuss the syllabus amongst us and divide the areas between the different year groups. We also collaborated in the sharing of facilities and equipment'* (Teacher 4, 10th April 2015).

Given the geographical size of Malta, it should be easy for teachers to collaborate not only with their colleagues within the same school but also with other PE teachers in others schools. When the College System was introduced with the aim of gathering teachers teaching within the same college in one network, different forms of collaboration were encouraged such as the organisation of common activities, sharing of resources and sharing of good practices. State school teachers said that unfortunately this collaborative aim was definitely not reached: *'Throughout these five years I never met the other teachers within my same college with the aim of collaborating with them. I only met them informally during official PE activities such as the intra-schools competitions'* (Teacher 3, 10th April 2015). Neither the Department nor the respective SMTs created any opportunities for teachers to meet and collaborate together even though they belonged to a network which on paper had a common vision and mission. It seems that these networks were just a structure within which other changes were necessary in order to facilitate collaboration. Time-tables were different, number of PE lessons allocated varied from one school to the other, CPD activities within the schools tackled different topics and curriculum changes were very frequent.

'I used to teach in a school with a very large population. I always had a high teaching load which left me few time to try and organise something else apart from lessons. To link time-tables and find common free periods with other PE teachers is impossible' (Teacher 19, 9th June 2015).

'The continuous changes in the educational system made it impossible for teachers to plan ahead. At times changes even happened in the middle of the scholastic year, thus it was not viable for teachers to meet together since we were always waiting for something new to be implemented' (Teacher 2, 25th March 2015)

The College System failed to create the right environment for collaboration between teachers across different schools. The following section analyses ways how PE teachers collaborate together within the class, especially when they share good practice related to PE.

4.3.3.2 Sharing of good practice amongst PE teachers

Certain teachers described how they collaborate together in a way that improves their knowledge and their performance in class. This collaboration occurs within the class as opposed to collaboration that occurs across the whole school and / or different schools. Building on a point made earlier in relation to better utilising teachers as CPD resources, those interviewed all appreciated the fact that amongst PE teachers there are those who are experts in a particular area: *'We do collaborate by sharing experiences. Each one of us has his/her own expertise and we join forces together to help each other'* (Teacher 19, 9th June 2015). Teacher 9 said that throughout her career she searched to learn even by collaborating with teachers who are not PE teachers, but who still have a strong sporting background. She knows her limitations, admits her weaknesses, and, in certain content areas, simply seeks the help and advice of others who are experts:

'At school, I always try and identify the experts. Not only PE teachers are sports-oriented people. Other teachers might be coaches too or athletes themselves. So definitely, I seek to engage in discussions with these teachers in order to gain ideas from them' (Teacher 9, 29th April 2015).

Regarding how they actually work together, PE teachers gave different explanations. Teacher 3, who teaches in a challenging school, mentions co-teaching as a way of collaboration: '*We sometimes co-teach especially when we have classes with a small number of students. We join the class and we do a lesson together*' (Teacher 3, 10th April 2015). This helps this teacher have better control of the class while at the same time the students receive better feedback on their performance. Another example of good practice is a collaboration model implemented in a State School by the PE department. Within this school, the PE teachers were faced with challenging students who were not responding to the PE content presented by teachers. In order to adapt to their students' preferences and to improve their own classroom management skills, the teachers collaborate together to modify the PE programme in a way that matches their students' needs. Within this PE department, teachers are continuously developing their practices and constructing knowledge. This successful model makes use of the specialisations of the various members of the department and makes collaboration a matter of daily practice:

'We send schemes of work to each other and divide lesson planning amongst us. Each one of us has his own expertise; who is good at writing up lessons, others in designing activities. Since I am the senior teacher, I link the final project' (Teacher 20, 15th June)

The two situations above show that when teachers are faced with a common challenge (i.e. difficult student behaviour), collaborating together does help to ease the

tension created by these challenges. In other schools, where teachers are not faced with similar challenges, collaboration is also feasible especially where there is an SMT that encourages and sets-up a structure which facilitates collaboration. In an Independent School, teachers teaching same age groups have parallel time-tables, which facilitate co-teaching: *'Co-teaching allows us to develop common schemes of work and lesson plans'* (Teacher 14, 11th May).

In order for collaboration to be effective, all teachers within the department need to feel willing to do so. Teacher 7, who has taught for about 30 years in the same school, has throughout the years looked for knowledge from other teachers but has never engaged in real collaboration: *'I talk with other teachers to get ideas but I won't call that collaboration'* (Teacher 7, 23rd April 2015). Teacher 7's attitude might be a reflection of the isolation and privacy which at times is associated with the teaching profession.

The HoD for Church Schools confirms this idea of individuality especially in older teachers, who resist change and refuse collaboration. This is resulting in teachers, *'teaching always the same content without realising that their students might be interested and are good in other areas too'* (Head of Department, 17th March 2016). Collaborating with others might help teachers construct new knowledge for the benefit of them becoming more professional and having more responsive students in class.

In the case of Teacher 10, it is the age difference between him and his colleague which is hindering collaboration. Teacher 10 is only in his second year of teaching and forms part of a department made up of only two PE teachers. His teaching methods are very different from his colleague's way of teaching, who has been in the same school for over 25 years: *'We don't discuss lessons because my colleague is now in*

her 35th year of teaching, and the gap between how we teach is enormous' (Teacher 10, 7th May 2015). Working with a more experienced colleague should be an asset to one's learning but it seems that in the case of teacher 10, this is not happening. At least, within this same school, it is compulsory for teachers to observe other teachers in class and Teacher 10 sees this as a compensation for the lack of collaboration with his own colleague. This brings us to another effective form of professional collaboration; observing good practice.

4.3.3.3 Observing and implementing good practice

The majority of participants mentioned the effectiveness of observing good practice in order to acquire new subject-related knowledge, to be exposed to different teaching methods and to improve classroom practices. In one Independent School, for example, observation is compulsory for all teachers and forms part of their working contract: *'In my school, peer observation is compulsory for all teachers, irrespective of amount of teaching years. We are assigned to different teachers and we observe how they manage their classes and what teaching methods they apply'* (Teacher 10, 7th May 2015). Through these observations, Teacher 10 is acquiring skills which help him develop professional competencies. Similar observations help reduce the initial shock which new teachers experience when starting to teach. Even more experienced teachers commented on how observations help them improve their practice. A HoD in an Independent School, although he has been teaching for more than fifteen years, explains that mutual observations with his colleague are still the best way for him to improve his knowledge, skills and competencies: *'I don't observe other teachers but with my colleague for these last fifteen years, yes, we do observe each other and*

discuss' (Teacher 15, 14th May 2015).

Observing and implementing good practice does not mean admitting and addressing your weaknesses in a particular area. Teachers recall previous effective observation sessions which formed part of PD activities: *'We used to attend PD sessions where one of us would demonstrate, because I believe that experts are amongst us teachers, and not just someone from within the department'* (Teacher 1, 25th March 2015). Teachers now observe each other on their own initiative but State Schools' teachers especially, would like observations to become a structured PD activity; *'I also believe that we teachers should observe more each other'* (Teacher 18, 29th May 2015); *'Listening to other teachers' experiences of how they teach similar content but in a different way, can be very valuable'* (Teacher 19, 9th June 2015).

Teachers said that they go beyond observing their own colleagues. Prospective teachers who are doing their teaching placements in schools can also offer a learning experience to teachers: *'I learn a lot from prospective teachers. I find their lessons very innovative, filled with new exercises which I then try out with my students'* (Teacher 17, 29th May 2015). Teacher 20, a teacher in a State School, explains how a prospective teacher helped him understand better and apply the TGfU approach, and considers this as one of the most effective learning experiences he had during his career.

'I observed him dividing the area in grids, allowing students to play the game, then stopping to explain. I used to observe him and discuss with him after his lessons' (Teacher 20, 15th June 2015)

The Church Schools' HoD considers prospective teachers in schools as a valuable learning experience for teachers already in service.

'I encourage teachers to make also use of the student teachers who do their teaching practice at school. Student teachers apply in their lessons new ideas, new methodologies which could result in a good learning experience for teachers' (Head of Department, 17th March 2016)

Even coaches can be of an asset to teachers teaching sports content. Although there has always been the conflict between 'PE' and 'coaching', teachers appreciate the fact that coaches are experts in their own area and have lots of knowledge to offer. This is already being done effectively in Church Schools after the CPD provider took the initiative of setting-up collaboration between sports associations and schools in order to make up for the lack of space, equipment and sport-related expertise in Church Schools. Teacher 17, who teaches in a State School, suggests that '*.....local sports associations should send coaches in schools to do demonstration lessons with the students, for which teachers are present to observe*' (Teacher 17, 29th May 2015).

These situations of observing good practice create opportunities for teachers to watch, evaluate and learn. Since these observations are non-evaluative and not punitive, teachers find them as an ideal way to develop professionally. Current directives issued by the Malta Union of Teachers do not allow lesson observations by HoDs. Only members of the SMT are allowed to observe a teacher in class for evaluative purposes, but only when there are reports of misconduct and inappropriate practice.

In this section, learning from other teachers and coaches has been described by the majority of interviewed teachers as being one important source of knowledge. The teaching career starts from the teaching course at University and is on-going within the different contexts a teacher practices. Participants in this study mentioned other

important sources of learning which they experienced throughout the years and are still experiencing during their day-to-day practice. The following sections present ways how teachers have learnt from their own personal experiences in class and also from the feedback they received from their own students. Suggested ways of how teachers use self-evaluation and reflection to enhance their learning will be presented.

4.3.4 Sources of knowledge

4.3.4.1 Personal dispositions towards learning

PE teachers interviewed explained that learning occurred in various ways throughout the different stages of their career. Some of the teachers were exposed to physical activity related learning even before deciding to become PE teachers. They were either athletes or coaches. Teacher 2 said that due to his early experience in coaching, following a course in teaching Physical Education was a natural choice: *'When I was 16 I started coaching football in a nursery, then at 18 I started my PE teaching course at University. This course made me more convinced that becoming a PE teacher was the right choice for me'* (Teacher 2, 25th March 2015). Teachers who at the time of the interview were at their early stages of their career, mentioned the four years at University as an important source of learning: *'My best source of knowledge was surely my teaching practice period during my university course. It is the first hands-on experience you get of teaching'* (Teacher 10, 7th May 2015). What teachers consider is a challenge to address, is the gap of an induction phase between university years and the actual workplace. Teacher 4 recalls the support he received from tutors during his university years and suggests that this type of mentoring should be carried

out during the first years of one's teaching career: *'Unfortunately once you step in real school life, you realise that reality is very different'* (Teacher 4, 10th April 2015).

Once teachers start working in schools, it is their responsibility to keep searching for knowledge. Many teachers commented that they engage in personal research to address certain weaknesses. Teacher 3 was challenged by her students when she tried to introduce hockey to them: *'I was so hesitant that I embarked on personal research to see how to deal with it smoothly'* (Teacher 3, 10th April 2015). On the same lines, we find NQT teacher 4, who has already identified research as a potential tool to increase his knowledge: *'I do personal research but I believe that after implementing this research into practice, learning really occurs'* (Teacher 4, 10th April 2015).

Having personal dispositions to learn helps to leave an impact on both the teachers' and the students' performance. A teacher who has been teaching for over 30 years in a Church School comments how in her first years as a teacher, her motivation to learn resulted in the fact that she used to take her own initiative and give suggestions related to the organisation of CPD activities for PE teachers:

'I remember years ago, when I used to encourage the Education Department to organise practical sessions at my school so that I could learn more and other teachers could come over to observe. This made me an all-rounder, always experimenting new methods' (Teacher 7, 23rd April 2015)

Teacher 7 and other more experienced ones consider the lack and type of PE-CPD opportunities as one of the major current barriers that is hindering their own learning. Teachers say that in an era of new teaching methods which must match

students' abilities, the need for CPD is greater. To make up for this lack of opportunities, teachers are finding themselves embarking on a learning journey in their own class where they are learning continuously from the feedback given by students. Adapting one's teaching to match the students' abilities is another form of learning put forward by the participants of this study.

4.3.4.2 Learning from own students

Changes in the local educational system continuously occur in accordance with changes in the global context, including the emphasis on inclusion and the influence of technology. PE has been affected too and CPD providers comment that locally, changes vis-à-vis PE have been quite positive. The main changes occurred as a result of the ways students prefer to learn nowadays. Teachers who have been teaching for over fifteen years noticed this change in their students and this has kept them aware of the need to adapt their own methodology too. A teacher with 18 years of teaching experience within the same Independent School considers the approach and feedback given by his students throughout the years as his main source of learning:

'My knowledge changed due to different students year after year. The way I deal with different students also changed. I use different strategies with different students. I transfer and adapt these strategies from year to year, student to student' (Teacher 15, 14th May 2015)

The same thought is shared by teacher 2 who in contrast to teacher 15, during his ten years of teaching, has experienced different teaching contexts which made him aware of different sources of learning.

'Working in challenging schools helped me a lot in learning how to adapt. When I started teaching, I learnt through discussion with other teachers who introduced me to reality. Then during the years, I learnt how to adapt according to the different students' (Teacher 2, 25th March 2015)

The way students changed during these last few years has effected the way PE is taught. Students nowadays want to participate actively in the lesson and the new TGfU approach set a new platform for how PE is being taught. Teacher 20 gives a detailed description of the process he went through when implementing this new teaching method which he considers as a major breakthrough in his career:

'I remember when I switched from a skill-based approach to the TGfU method. I remember the previous EO explaining this method and then I saw it in practice while observing a pre-service teacher at my school. That change in method was a great change for me and I experienced a better performance even in my students' (Teacher 20, 15th June 2015)

Observing a positive attitude from students during a lesson is a good indicator for teachers to identify which approaches work best with their students. In order to identify these approaches, some teachers said that they evaluate their lessons. Teacher 5, who was only in her second year of teaching, considers her first year as a teacher as a learning experience during which she learnt evaluation and adaptation skills: *'During my first year, I lacked experience and thus it was all by trial and error. Through my one year experience, I learnt how to evaluate and also adapt'* (Teacher 5, 21st April 2015). Another teacher evaluates each lesson and her students' response in order to keep on learning and improving her performance as a teacher: *'Every lesson is a learning experience. After each lesson I evaluate my own performance and ask for feedback from my students'* (Teacher 12, 8th May 2015).

The majority of teachers interviewed acknowledged the importance they give to students' feedback. Teachers consider feedback as a way to measure whether new knowledge implemented in class has left an impact or not on their students' performance. An increase on their own knowledge and an improvement on their performance in class, are two other signs resulting from effective CPD.

4.3.5 Impact of effective PE – CPD

The majority of teachers who participated in the National PE survey and also those interviewed, mentioned exposure to new teaching methods as the PE-CPD experience which left most impact, both on their own knowledge and performance and also on their students' attitude towards PE. Teachers became more confident in teaching new content, in preparing differentiated lesson plans and in developing a more professional attitude. Teacher 13, attributes this to the way the previous PE EO tackled CPD for PE teachers: *'Our previous EO radically changed the subject and left an impact on us all. He gave the subject a new status and I believe that us PE teachers have become more professional thanks to his influence'* (Teacher 13, 11th May 2015). The CPD providers' main aim is that the opportunities they present to their teachers result in being effective, *'I want teachers to feel they have the skill and confidence needed to teach areas that previously they were sceptic about,'* (Head of Department, 17th March 2016). Teachers share this same thought, *'It's useless that a teacher increases his knowledge but then there is no transference to his students'* (Teacher 4, 10th April 2015). Teacher 19, who is in her seventh year of teaching explained the

process of how her participation in CPD activities left an impact both on her and then also on her students:

'I increased my knowledge and I became more aware of certain sports which I was not that familiar with. I started teaching different activities and implementing what I learnt during these activities in class. When a teacher feels at ease teaching a particular activity, students will be aware and thus they will be motivated to take part in the lesson' (Teacher 19, 9th June 2015)

Tackling successfully different learning difficulties within the same class was another common response given by teachers related to impact of effective PE-CPD. For teachers, students' satisfaction during a lesson is the best way to demonstrate that there has been an impact of new knowledge or new methods being applied: *'For me watching students exhausted at the end of the lesson, and enthusiastic about what they did, means it was a good lesson'* (Teacher 15, 14th May 2015); *'It is a satisfaction seeing students improve and perform newly acquired skills'* (Teacher 9, 29th April 2015). Enjoyment and acquisition of new skills were other points mentioned by teachers in relation to impact of effective CPD on students.

4.4 Conclusion

This chapter reported the findings and main issues raised by participants in both phases of this study. The first part of the chapter elicited the main findings from the National PE-CPD survey which include quantified data about the current PE-CPD provision for Maltese teachers. Other data together with the teachers' opinions collected from the semi-structured interviews were reported under the headings related to the features which make up effective CPD. All research participants identified imperfections in the existing PE-CPD provision. These imperfections are related both

to the quality and the quantity of existing CPD. The findings also illustrate the similarities in the way teachers perceive effective CPD, irrespective in which context they teach. The following chapter provides a deeper understanding of the key issues raised by participants and identifies ways how these issues can be implemented effectively in the Maltese PE-CPD scenario.

CHAPTER 5: DISCUSSION

5.1 Introduction

In the previous chapter, findings related to the current situation of PE-CPD in Malta were presented. These findings can be summarized as follows: statistical data about the provision of PE-CPD in Malta; opinions and views of teachers regarding their ideas of what is effective CPD and opinions about what underpins providers' practices. In this chapter, these findings will first be discussed in the context of the available evidence on PE-CPD. Subsequently, a discussion on how these findings are consistent with the Maltese context will be presented.

The findings resulting from this study overall reaffirm and are consistent with many of the things that have been published in CPD-related literature. Maltese teachers acknowledge the importance of engaging in CPD and prefer similar CPD activities as their international colleagues. Regarding preferences for CPD activities, Maltese teachers agree that they find mostly effective, CPD activities which match their own and their students' needs. These connections between the Maltese context and the international PE-CPD scenario will be established in the first part of this chapter. Explanations on how and why the Maltese context differs from the international one will follow. The findings led to the identification of gaps within the Maltese PE-CPD scenario such as the lack of equilibrium between CPD that addresses professional development and that which addresses personal development as well as issues related to how and when does CPD match the teachers' needs. Based on these issues and in the light of the current initiatives being implemented in the Maltese educational system, the second part of the chapter presents ideas on what different stakeholders

can do and how in order to provide an effective PE-CPD provision.

5.2 The importance of teachers engaging in CPD

Maltese teachers recognise engagement in CPD activities as an integral part of a teacher's professional development. Like all other professionals, Maltese teachers believe that throughout their career, a commitment towards engaging in CPD must be shown. As Boud and Hager (2012) comment, teachers need to work not only on developing and improving their own practice but also must be aware of changes which are happening within the educational context and get support on how to adapt to these changes. Stakeholders within the Maltese educational system have experienced radical changes throughout these last years including the shift from segregated schools to mainstream ones and the implementation of a co-educational set-up. These and other changes have increased the need for CPD.

All teachers in Malta are entitled to the same CPD provision. Findings from this study confirm that current provision for Maltese teachers is very similar to the CPD activities offered in other contexts. Compulsory CPD activities organised within the school or organised by the Education Department are the most attended activities since these form part of a teacher's teaching contract and workload. The local situation is similar to what happens in other EU countries where CPD is aligned to the school's development plan (Caena, 2011). In Malta, teachers take part in teacher networks within the school during which they identify a priority area for the school on which to work on throughout the scholastic year. PE teachers consider this participation as ideal in making them active participants in the school's development even though content tackled during these teachers' networks is rarely relevant to PE. Compulsory PE-

related CPD activities and sport-related voluntary courses are also frequently attended by Maltese PE teachers.

Maltese teachers pointed out that these formal types of CPD are effective when new policies or new subject content is being introduced. There is still a debate on how and whether the impact of these activities is measured since at the end of these activities only a certificate of attendance is presented. This rewards only the physical presence of the learner and does not measure whether there was any improvement on the teachers' and students' performance (Hunzicker, 2011; Friedman and Phillips, 2004). For Maltese teachers, the continuous change in students' learning preferences is considered as one of their main development needs. When one takes in consideration the fact that providers design and plan current CPD provision with the aims of the National Curriculum Framework in mind (Galea, 2016), Maltese teachers expect that CPD addresses the curriculum's main aim; that of placing the student at the centre of the educational system. In spite of this, CPD provision is still not providing adequate support which teachers need in order to overcome these needs. The main aim of CPD activity should be to improve the professional service given to students by teachers (Fullan and Hargreaves, 2014) and for Maltese teachers, this can only be achieved by providing CPD that matches teacher learning with student learning preferences.

5.3 Effectiveness of CPD

The international consensus about the importance of engaging in CPD has led to a new area of research which tackles the effectiveness of CPD. The effectiveness of

CPD can be measured against both the quantity and the quality aspect of the provision. Maltese teachers share the same perception of their international colleagues in describing current CPD provision for teachers as inadequate in both quantity and quality (Borko, 2004). The quantity and quality of current CPD activities will be discussed separately in relation to the features of effective CPD listed in international literature (Garet et al, 2001; Desimone, 2002; Penuel et al, 2007).

5.3.1 Quantity of CPD

The *amount* of CPD opportunities available for teachers in State and Church Schools is bound by collective agreements, which the government, together with the Malta Union of Teachers, agrees upon. Teachers in both these types of schools are bound to attend compulsory activities organised by the school and following an agenda set by the Education Department. Independent Schools are not bound by these external influences, but instead the Board of Directors in each school drafts and implements its own CPD policy after internal consultation with all stakeholders. The way Independent Schools function allows teachers to suggest CPD agendas and also to choose which CPD activity they want to engage in.

Since there are no external influences, teachers in Independent Schools feel a sense of CPD ownership (Cordingley et al, 2005) because they choose activities which help them build upon their existing knowledge, both in relation to professional and personal development needs. Instead of following imposed activities, teachers look for activities which can be easily tailored to their own needs, to the school's and to the

students' needs. This positive attitude towards CPD participation is further encouraged by the constant support Independent Schools' teachers receive from their SMTs both in the form of financial aid and in replacements at school. With Independent Schools functioning in the same way as business entities who aim towards giving a professional service to their clients, investment in the staff's professional development is a priority. This results in an effective CPD participation with the knowledge constructed by teachers immediately inputted in their practice and positive outcomes can be observed in Maltese Independent Schools. Teachers in Independent Schools are more inclined to include a varied PE content since they know that they will find the necessary support from the SMT to provide the necessary sports facilities to accommodate this new content. In turn, students are more motivated to take an active part in PE.

The immediate use of knowledge by teachers in Independent schools contrasts with what happens to knowledge that State and Church Schools' PE teachers acquire during their annual INSET course. State and Church Schools' teachers criticise the timing of this INSET course which takes place either in July or in September, with both months being outside the normal cycle activities within which teachers practice. Its timing is causing lots of knowledge to be lost since teachers won't be implementing it immediately. Teachers will be too detached from the context or else will have more important development needs which differ from those presented from the providers. This loss of knowledge confirms the criticism brought by teachers in this study when they comment that CPD providers are giving more preference to convenience considerations (e.g. bringing all teachers together at the same time, in the same place) than to efficacy and relevance (e.g. course held when teachers are detached from the

school context, instead of during term-time). This attitude is hindering the pragmatic approach (Harrison, 2013) which Maltese teachers show towards CPD by expecting that CPD is there to help them seek concrete ideas to put in practice and observe its impact immediately. The INSET fulfils the collective agreement in that it brings teachers together to develop professionally, but misses on the effectiveness of providing knowledge which is sustained and immediately used. Sustainability and relevance are other two features related to the quality of CPD provision which will be discussed in the next section

5.3.2 Quality of CPD

Literature related to PE teachers' and coaches' CPD shows that the impact of current CPD is relatively low due to the formal and decontextualized way knowledge is presented (Nelson et al., 2006). Maltese teachers value the provision of CPD opportunities all the more if and when the experts guide them and work with them in smaller cohorts in order to construct knowledge. The more the knowledge matches the teachers' context, the more effective the CPD activity will result. Maltese PE teachers need continuous support to face challenges they experience during their everyday practice.

Equipping PE teachers and coaches with predetermined strategies to use in class (Nelson et al., 2006) is not enough especially if no further information is given on when, how and why this knowledge should be applied. Maltese PE teachers feel that during PE-CPD activities, they are passively on the receiving end of what Cushion et

al. (2003) describe as the presentation of a tool-box of professional knowledge. Participants of this study recalled in particular when CPD dealt with the introduction of new teaching methods meant to match the learning preferences of students and the recent implementation of the co-educational system in Maltese schools. Teachers acknowledged the importance of sessions during which theoretical evidence based on international studies was presented (*tool-box of knowledge*) but wished they were given the opportunity to put in practice and personally experience the impact of these new teaching methods. Instead, they were left to put these methods into practice weeks after the CPD activity took place and without any follow-up.

PE-CPD provision for Maltese teacher does not conform to Knowles' model of adult learning which shows that adults learn mostly when they are actively involved in the learning process (1996, 2014). Instead, PE teachers' learning preferences and needs are not being taken in consideration; and the providers are ironically placing teachers in a sedentary and passive context and expecting them to learn about the active context in which they work. Maltese CPD providers must shift from an outward facing collective bargaining mechanism to a more inward one where a teacher's personal and professional development must be analyzed first at class and school level; and subsequently at system level (Smylie *et al.*, 2004). This mechanism must match the teachers' own learning preferences. Similar statements from this study reaffirm what is published in international research regarding ways how teachers nowadays prefer to learn, with the shift being more towards situations where learning is taking place informally with teachers being full participants.

5.4 Teachers' learning preferences

In this study, PE teachers made it quite clear that their preference was to construct knowledge either through routinely interacting with their colleagues or by themselves through different forms of personal reflection. This study places personal reflection at the top of the most preferred CPD activity for Maltese PE teachers. Teachers who are still in their first years attribute the development of their reflection skills to their pre-service years. This conforms to what Bergman (2015) explains, in that NQTs who reflect are able to compare preconceived notions with what actually happens within the school context, and eventually adapt accordingly. For Maltese NQTs, developing their own reflective skills helped them diminish the initial shock when faced with the reality of the classroom for the first time. Learning to reflect, places the teacher on an ongoing learning journey seen through different lenses (McLeod, 2015). Students together with their learning demands change year after year and Maltese teachers are also faced with the challenge of frequent changes in the PE content. For many of this study's participants each lesson, each individual student and each scholastic year offers a learning experience and this enhances the teacher's move from novice level to expert (Sawyer, 2006) in the absence of a structure within schools which helps this move.

Maltese teachers acknowledge the effectiveness of reflection because it constructs knowledge which can be of immediate use, and learning is versatile; based on the teachers' own personal and / or professional needs. Through reflection, teachers feel that they own knowledge and can then re-construct it as they deem appropriate. One lesson can offer a much deeper and wider learning experience, than

a whole structured CPD activity. One participant explained that within one lesson a teacher has the opportunity to reflect on curriculum matters, on pedagogical and methodological issues and also on ways how to interpret students' behaviour. Etherington (2004) takes reflection a step further than the classroom and describes it as the ability to stand back, observe different perspectives, compare and evaluate. This contrasts with the myth that describes teachers as being lone crusaders in class (Iyer, 2013), and instead places the teacher as a member of a learning community (i.e. the school and the whole educational system).

Findings from this study, show that Maltese PE teachers value professional collaboration mostly in the form of observation of good practice during which the observer and the teacher work together. While on teaching placements during their pre-service years, Maltese teachers said that the tension they felt due to being observed for performance evaluation, did not help them reap the intended benefits of these placements. Instead, during a recent PE-CPD activity, which was ongoing for three consecutive scholastic years, teachers were encouraged to observe each other delivering lessons and give feedback. This exchange of ideas led to the desired professional growth with teachers acquiring new skills during the actual activity and then modelling them within their own context. An analysis of the impact of this activity on PE in Malta, showed that new areas were introduced in the PE syllabus with teachers developing more confidence in presenting this content to the students. CPD providers confirmed that this activity promoted trust which resulted in teachers motivated to push one another professionally. Currently, since there are no on-going national PE-CPD activities, it is within the PE department in each school that this

culture of professional collaboration can be nurtured.

The PE department within each school has one shared vision; that of providing all students, irrespective of ability, with the best possible PE experience. To fulfil this vision, members of the department must show mutual trust and support (Watson, 2014) so that the actual teaching becomes a public and shared activity. PE departments within Maltese schools are far from developing this sort of collaboration focused on learning (Bolam *et al.*, 2005). The content which is discussed during departmental meetings is not leading to actual PE-related learning, but instead it focuses mostly on logistics of the department and organisation of sports events. Participants in this study confirmed that PE teachers extend these discussions throughout the whole teaching week. It is during these discussions that new skills and new knowledge are transmitted amongst members, in an unconscious way (Cotton *et al.*, 2013). The way these unexpected and unpremeditated issues are managed by teachers outside the niche of the meeting can be described as 'the hidden curriculum' (Kirk, 1992). How much value is given to this 'hidden curriculum' depends on the dispositions of the individual teachers within the department; and the encouragement given by the SMT that could transform the PE department into a dynamic group of professional learners (Bain, 1985).

Professional collaboration amongst teachers is the key to student gains (Darling-Hammond, 2012). In the absence of a structured PE-CPD policy, Maltese teachers revert to other forms of CPD, which provide them with relevant and contextualised knowledge. In the light of two major changes within the Maltese

educational system in the nearby future, i.e. a mentoring scheme and the new LOF, suggestions of how findings from this study can be applied effectively in the Maltese CPD scenario are presented in the next section. Suggestions will address all major stakeholders in the Maltese educational system, including teachers, students, the schools' administration and the Education Department.

5.5 Application of findings in local context

The previous section presented the Maltese situation vis-à-vis PE-CPD with teachers highlighting the benefits of professional collaboration. The importance given to professional collaboration leads to the next section that aims at reducing the gap between research and practice, through an analysis of how these findings can support and encourage more professional collaboration across different professional contexts within the Maltese educational system.

PE teachers and CPD providers who participated in this study named three main issues in the current Maltese educational context: the shift towards co-educational schools, the need for differentiated teaching to match the different learning abilities in class and the implementation of the new LOF. All stakeholders in education must work together to go through challenges, adapt to the new reforms and develop approaches accordingly. This professional collaboration will have all stakeholders working on different tasks in different teams, but motivated to fulfil one common aim (Wenger-Trayner and Wenger-Trayner, 2015). The main aim of the Maltese educational system is clearly indicated in the latest NCF (2012): that all students have a right to a quality and holistic education in order to succeed.

The following sections will give practical suggestions on how the different stakeholders, in particular those involved in the PE sector in Malta, (*i.e. the Directorate of Education as the main policy maker, the SMTs, the CPD providers and teachers*) can work together to fulfil this national aim through the development of a working culture that encourages professional collaboration (Forte and Flores, 2014). In order to strengthen the arguments in favour of professional collaboration, examples of concrete benefits for the different professional contexts within the Maltese educational system will follow.

5.5.1 The Directorate of Education – the policy makers

The document 'Schools' Networks – For All Children to Succeed' (2005) placed the Directorate of Education as the main policy maker in education in Malta in a period of radical change in the local educational system: the shift from a hierarchical structure to a more decentralised educational system. The Directorate of Education embarked on finding effective ways how policy makers communicate directly with teachers within the workplace. Compulsory meetings during or after school hours dealt with the implementation and subsequently the evaluation of these policies and fulfilled the collective agreement's section about CPD provision for teachers. These meetings fulfil the teachers' duty of engaging in CPD activities but the delivery of these sessions results in only a transmission of knowledge from expert to teachers (Kennedy, 2005). Teachers are placed in a passive role, listening to the policy makers, with no measurable impact resulting on teachers. Needs related to issues which emerge internally within a teacher's own classroom are not taken in consideration by providers, and this places teachers at the short end of the CPD compromise.

In order for policies to be implemented effectively within the schools, Maltese teachers want to feel participant. In some schools there are numerous functioning teachers' networks that discuss these policies and put forward suggestions to the SMTs. What Maltese teachers question is what happens to this feedback, what type of follow-up occurs and how much of the teachers' contribution is taken notice of. The forthcoming implementation of a mentoring scheme can be an effective way of how feedback by teachers reaches the policy makers. Pre-service teachers and NQTs, through mentoring, can not only acquire information about policy content but also acquire the necessary skills to learn how to adapt policies to one's own context. The mentors can also benefit from their interaction with mentees if the latter are given the opportunity to put in practice their own skills. The feedback provided through this mutual collaboration should then be presented to the Directorate to follow-up.

Obtaining feedback which reflects the teachers' opinions, can ease the whole process of policy-making for the Directorate. The same can be adopted to CPD provision which is now the responsibility of the newly set-up Institute for Education (2015) within the Directorate. The Institute should embark on an on-going consultation process in order to have a clear idea of the development needs of teachers. The Board of Directors of this Institute could make use of regular meetings with mentors and HoDs whom Maltese teachers consider as the link persons between them and the Directorate. It is through continuous contact with teachers during the year, that the Institute of Education together with the respective CPD providers, will become aware of the challenges which Maltese teachers are facing in schools, support them

accordingly while at the same time identifying the areas of development which teachers need further training in.

5.5.2 The PE-CPD providers – challenges and suggestions

The main PE-specific CPD providers in Malta are the PE EO and the HoDs. Findings from this study confirm that PE teachers consider these providers as the people able to understand and give answers to their everyday needs. Apart from possessing qualities related to the teaching profession (i.e. knowledge of PE content, awareness of new teaching methods and assessment procedures), the EO and HODs have closer contact with teachers than people within the Directorate. The PE-CPD providers fulfil the role of what Williams (2013) describes as *boundary spanners*, because they not only have access to information and control over its sharing, but also have the faculty of engaging with stakeholders outside the school. In order to be aware of the teachers' development needs and challenges, CPD providers must be present in schools.

Lack of human resources within the Education Department led to a lack of providers' presence in Maltese schools during these last years. It was difficult for the EO and the HoDs to go round all the schools and maintain contact with teachers. To overcome the lack of human resources, using social media or making better use of the online platforms used by Maltese teachers, can facilitate the development of a PE specific network. These networks are similar to the online communities which are very much in use amongst secondary school teachers both in the US and in The

Netherlands (Matzat, 2013). In Malta, the low number of PE secondary school teachers can be described as being logistically manageable to go a step forward and create what Matzat (2013) presents as a more effective blended community where teachers not only discuss and share experiences online, but have regular meetings face-to-face together. In order to overcome logistical hurdles which might arise with the school's SMTs (i.e. class replacements and time-tabling issues), PE-CPD providers could make good use of the knowledge which senior teachers within each school possess. Apart from a good knowledge of content, senior teachers know well the dynamics of the context in which they work and could be the messengers for the rest of the PE department.

Long-term investment in monitoring by the authorities can lead to an enough number of HODs who can monitor all ten Colleges in Malta. It is not enough to invest in teaching and physical resources, without having the adequate tools to monitor whether these are functioning up to standard. To acknowledge this request, the Government would have to be convinced that this will lead to an improvement in teaching and learning.

If all stakeholders, especially the school's SMT, encourage this collaboration between CPD providers and PE teachers, more teachers will feel comfortable to share their needs and receive necessary feedback. This will help eliminate the lack of trust and doubt which some teachers might have towards this sense of belonging to a department (Kling and Courtright, 2003) and towards providers who might seem detached from the everyday life in schools. It is the role of the providers and the SMTs to help promote and encourage ongoing collaboration aimed at increasing professional development.

5.5.3 The Senior Management Team (SMT) and collaboration within the school

The published description of the SMTs' role in local schools depicts the members of the SMT as professional leaders who implement and develop the aims of the National Curriculum Framework through a whole-school commitment approach (Ministry of Education, Youth and Employment, 2007). In principle, SMT members are encouraged to be instructional leaders (Hoerr, 2008) who build within their schools an effective channel of communication. In practice however, reality is quite different with Maltese teachers, especially those teaching in State Schools, having mixed opinions regarding how their SMTs view and value professional collaboration in spite of the current discourse about decentralised schools. There still exists a certain degree of bureaucracy especially in relation to policy implementation on which State Schools' SMTs have still no full control.

Making better use of the SDP which SMTs are responsible of developing every scholastic year, could help eradicate this bureaucracy. Teachers commented that working together in focus groups in order to compile this SDP is a fruitful learning experience but their work is not followed-up effectively. They agree about having an internal examination in order to measure the impact of this professional collaboration but question the validity of an annual, paper questionnaire currently used by SMTs to measure this impact. Teachers comment that internal evaluation must be done continuously throughout the scholastic year and not be just a one-off exercise done with the sole purpose of fulfilling obligations.

In some Maltese schools, SDP focus groups meet once a week. This good practice should be extended to all schools so that week after week feedback is received and teachers can evaluate whether or not the outcomes they suggested are being fulfilled. Teachers should also get the necessary training related to the SDP, in the same way as members of the SMT attend similar training every year. This will help develop a uniformity amongst schools in the way they promote professional collaboration.

The uniformity amongst schools in how SMTs promote collaboration, can lead to greater flexibility and decentralisation in how SMTs work in developing a professional community within their respective schools. With the NCF (2012) encouraging more than ever the need of having autonomous schools, SMTs must provide the opportunity for teachers to work together towards common, reachable and measurable aims. Apart from planning, implementing and reviewing the SDP, another way of encouraging professional collaboration is by strengthening the function of the different subject departments found in each secondary school.

5.5.4 The PE Department – the niche for professional collaboration

The PE departments within each Maltese school are considered by the participant teachers as a source of effective learning and the closest form of professional collaboration they engage in. This is mostly due to logistics which make it easy for teachers to meet together. Teachers share the same staff-room, share breaks and free periods and there is a weekly allocated departmental meeting in their time-table. Content discussed during these meetings is mostly related to everyday

routine and mundane aspects of school life. There is a lack of vision and direction towards which the members of the PE department should work in order to move together from a logistical collaboration to a more strategic one.

The Maltese PE curriculum's main aim states that the purpose of PE is to make the learners physically and health literate so that they can sustain active and healthy lifestyles (Government of Malta, 2014). This aim is linked to lifelong engagement in physical activity and its benefits, which in a way, devalues the subject, whereas there are no immediate targets which PE teachers and their students have to reach. Instead, Maltese PE teachers feel that they are pressured to work towards a target, imposed by national health strategies, which aim at strengthening prevention and promoting health by focusing on lifestyle choices. In order to truly engage in professional collaboration, PE teachers have to find situational issues about which they genuinely care, and consequently use their meetings to interact, and learn together and from each other (Wenger et al., 2002).

The new LOF which will be implemented in Maltese schools in the coming scholastic years, can offer a tangible opportunity for PE teachers to engage in professional collaboration. The LOF encourages schools and teachers to be more autonomous in choosing curricular content based on their students' needs and abilities (Ministry for Education and Employment, 2015). This new challenge can pave the way for the development of a strategic direction for PE teachers, not only in relation to the chosen content but also in relation to the pedagogy and methodology that ensures a fit for purpose assessment. Throughout the process of implementing the PE LOF within the school, the PE teachers should invest in the expertise which each member of the department possesses. Together, with everyone's input, the PE teachers can

evaluate the school's context, the students' learning preferences and plan accordingly so that the outcomes of this framework are fulfilled.

Valuing one's expertise and sharing good practice will facilitate collaboration. Members of the PE department should learn not only from the experts amongst themselves, but also from new members who join the department along the year. NQTs and prospective teachers during teaching placements, have skills to offer to the department and it is the role of the more experienced teachers to value the expertise of these novices. In the following section, the inclusion and the input of these NQTs and of student teachers within the community of practitioners, and the impact this sense of belonging will have on their learning, will be discussed.

5.5.5 NQTs and pre-service teachers: on the receiving or on the giving end of professional collaboration?

In Malta, the recent division of secondary schools and the increase in the number of weekly PE lessons, has increased the demand for new PE teachers. NQTs joining the teaching workforce are experiencing a changing profession. In spite of the findings of this study which confirm that in relation to subject content and innovative teaching methods, the ITT course is considered an effective learning experience, NQTs described their first year as an initial shock. The inadequate teaching placements in schools (i.e. 12 weeks spread over two years) are not fulfilling the aim of introducing pre-service teachers to the reality of school life.

NQTs come in the schools with new skills and ideas which should not create tension with what is already happening in the school. Experienced teachers in this

study take Fuller et al.'s (2005) side in stating that NQTs are not a threat to the other teachers, but an asset to professional collaboration. In order to avoid risking losing this new knowledge, established teachers and NQTs should interact collectively, and not create a hierarchy. The established teachers should collaborate with NQTs on developing ways how this new knowledge becomes relevant and appropriate for delivery within the school context. Collaboration must be both within the class, and also extended to issues across the school. The case study explained in Box 1 shows how similar good practice is already being applied in Maltese schools. Experienced teachers, throughout their weekly meetings and on-going discussions during the week, are not only helping NQTs settle at school but are also experiencing a reengagement and upskilling of their own knowledge in relation to the NQTs new knowledge.

Box 1: A PE department in a challenging secondary school in Malta embarked on a collaborative project since it was evident that the teachers needed support and direction on how to adapt the PE content for the different abilities of their students. Each member, led by the most experienced teacher as the facilitator, assumed a role according to one's own expertise and preference. Each teacher had a task to complete, share, implement and evaluate with the others. This collaboration left an impact, in that teachers became more confident in differentiating content and applying classroom management skills according to the students in front of them. Every new teacher that joins the department and prospective teachers doing their pre-service training are encouraged to take up a role too.

These good practices will now be strengthened with the launching of the new MTL and the implementation of the mentoring scheme for NQTs and pre-service teachers. Findings from this study confirm that established teachers, on various occasions learnt by observing pre-service teachers at work and subsequently tried their innovative methods on their own students. Till now, teachers did this out of their

own initiative. The mentoring scheme will now present a more structured system that can be effective if both mentor and mentee are ready to learn from each other. While observing the prospective teacher at work, established teachers will get acquainted with new methods. On the other hand, the prospective teachers will feel participative of the school life by observing the established teacher, not only during lessons but also during departmental and whole staff meetings.

5.6 School-based mentoring in local secondary schools

The implementation of the new mentoring scheme for pre-service teachers in Maltese schools reflects the understanding of the benefits of professional collaboration by stakeholders in the Maltese educational system. Throughout these last years, new teachers have felt a sense of non-continuation between pre-service education and in-service reality. The mentoring scheme aims at helping pre-service teachers, enter the teaching profession already knowledgeable about the demands of belonging to a community of practitioners and thus aim at retaining teachers in the profession (Box 2).

Box 2: Prospective teachers following a teaching degree will now be assigned to a mentor who will collaborate with them throughout all the various stages of their teaching placement; from the initial planning related to content till the final self-evaluation phase of their performance in class (Caruana, 2015). This form of structured mentoring aims at facilitating the NQTs smooth transition from University into local schools through support in the development of both their personal and professional qualities, given by teachers who will receive the necessary training to be mentors (Informal conversation with Dr. S. Caruana – Dean of the Faculty of Education, July 2015)

Through mentoring, professional collaboration will be enhanced. The mentor and the mentee will focus on specific and relevant ideas while collaborating on practices that are on-going and specific to the context. Collaboration won't be limited to weekly meetings but can occur within the classroom, during the actual teaching. The mentor and the mentee can observe each other while implementing new knowledge and practices. Follow-up can be immediate with both teachers actively participating in measuring the impact and suggesting alternatives. Once new knowledge is accepted or rejected and reconstructed, learning will occur. This new knowledge can then eventually be shared amongst all teachers, eventually leading to the development of a community of practitioners within the school.

5.7 Conclusion

A common element found in all studies about CPD for teachers the importance of CPD engagement, especially due to the continuous changes in education and the teachers' own performance management (Evans, 2011). The local educational system is currently going through a shift towards a student-centred type of education with the NCF encouraging the autonomy of teachers in choosing the content and the pedagogy which match their students' abilities. These new challenges are increasing the need of local teachers to engage in CPD activities. Participants of this study commented about both the lack of quantity and quality of current CPD provision which resembles mostly the traditional model of CPD. These activities are failing to leave an impact because they do not reflect the dynamic nature of contemporary practice (Armour *et al.*, 2015). Teachers want to be active participants in the whole CPD process: the planning, the

delivery, the implementation in class and the evaluation of impact. Based on their previous experiences and identifying the weaknesses they are now facing due to the current challenges, local teachers believe that professional collaboration is needed.

Developing a community of practitioners working towards one common aim, related to teachers' own context and relevant to their students' needs, is an ideal way of promoting effective professional collaboration. On the threshold of the newly implemented mentoring scheme, it is now the responsibility of all major stakeholders in the Maltese educational system to be consistent in their input and reciprocal support towards professional collaboration. This research shows the importance of having all stakeholders work towards one main aim; that of addressing the relationship between teachers and students through the understanding of current preferred ways of learning of both students and teachers.

CHAPTER 6: CONCLUSION

6.1: Implications of study

This study was undertaken during a period of substantial change within the Maltese educational system. Teachers now practise on a day-to-day basis in the context of broader implementation of the NCF and its support branch, the LOF. A mentoring scheme is also in the process of being introduced in Maltese schools aimed at supporting pre-service teachers during their teaching placements and NQTs in their induction phase. Suffice to say, professional practice and development are contemporary issues in Maltese education.

These challenges are also being experienced by Maltese PE teachers, the practices of which are taking on international best practice components. PE is increasingly being understood as a means of developing not only skills and knowledge related to physical activity and fundamental movement but also attitudes and values which 'promote and enhance the holistic well-being of the students throughout school life and as lifelong learners' (Ministry of Education and Employment, 2012: 35; cf. Armour, 2015; Armour et al., 2015). This step-change in the nature and scope of their subject-matter has meant that PE teachers increasingly need to be engaged in related continuous professional development activities. However, the international research base still confirms that current PE-CPD provision is still largely geared towards the teaching of sport-related content and not on the health-related, lifelong aspect of PE (Alfrey, Cale and Webb, 2012). *Where* PE teachers need development is therefore not currently being reflected in *what* they get out of professional education and training. This raises the question about whether the provision of PE-CPD for teachers is not

only inadequate in terms of the quantity of delivery but also in terms of the quality of opportunity, both of which combined to and influence CPD effectiveness.

This study was undertaken at a time when research about PE-CPD in Malta is lacking and with the obvious question arising as to whether current CPD provision is fulfilling its aims of supporting teachers to adapt their existing teaching and learning strategies. This in order to meet the needs of their learners, and to contribute positively to national priorities areas which align to adolescent activity, health and wellbeing (Ministry of Education and Employment, 2012). The primary aim of this study was to provide a critical overview of this context by analysing what the current CPD provision is like for PE teachers in Malta, and to assess teachers' and CPD providers' perceptions about its effectiveness.

6.2 Main findings from the study

Findings from this study align closely with the international literature on PE-CPD, both in relation to the activities in which PE teachers engage and in relation to their perceptions about what they understand by 'effective' CPD (Desimone, 2011; Armour *et al.*, 2015). Maltese teachers engage mostly in compulsory activities, as specified in their collective agreements, which follow the traditional, i.e. 'formal' CPD approach (Kennedy, 2005). While PE teachers acknowledge the importance of these type of activities – especially at times of broader structural change, or in relation to external environmental conditions which impact on their practice – the content presented does not always match the needs of the teacher at that particular time. Teachers' preferences were for CPD activities which are embedded or which occur within context

of their workplaces, where they are active participants. This is not to say that teachers' preferences were for 'informal' CPD as a rule for development activities. Rather, teachers indicated that simply having CPD which is aligned to their SDP would be more beneficial. These types of CPD is continuous, relevant and engages them actively. It can be 'formal' or 'informal'. The most important point here seems to be that they are tailored (Day, 1999; Armour and Makopoulou, 2012).

In addition to issues with tailoring, PE teachers question the context within which existing CPD activities take place. Findings which indicate that 'timing' is a major concern for PE teachers reinforce this thought. PE teachers attend an annual INSET course as their main PE-related CPD activity; however, it seems quite obvious that organising a 3-day course outside of term-time, during a period where teachers are detached from the school context - both physically and mentally - results in knowledge being lost before it is even given a chance to be implemented. On top of this, the findings of this study confirm that there remains a fundamental tension between actual CPD provision and the ideals which are set out in the NCF. CPD activities which are taken out of context, and which feel like they are simply being delivered as a feature of collective bargaining agreements, are not likely to support the vision of autonomous teachers who engage in continuous professional development (Ministry for Education and Employment, 2012).

6.3 Achieving effective professional collaboration

The learning preferences of teachers also need to be taken into account. For Maltese PE teachers, these preferences more often tend to emphasise interaction with

colleagues in a context which promotes and supports professional collaboration. Personal reflection is also emphasised. Reflecting upon one's own performance provides a basis for professional development based on information which can be immediately useful within the classroom. Professional knowledge of this kind can therefore be relevant to both the teacher and their students, as it is constructed in the context and according to the needs of the students in class. Teachers described interactive lessons of this kind as having provided a wide-ranging learning experience, and we see here in this research the relevance of a teacher's current cohort of students also contributing to their professional development. The students in front of us in the classroom not only highlight gaps in our knowledge, but they can provide us with knowledge too.

The interactions noted between NQTs and more experienced teachers in the findings chapter is another context within which this occurs. NQTs get to learn from experienced teachers within the school, while more experienced teachers acknowledge that NQTs come within the school with fresh ideas based on the most up-to-date research. NQTs should be given the space to cascade this knowledge to the already practising teachers who then mutually help each other to adapt this new knowledge to the students' needs.

Maltese teachers, therefore, value highly professional collaboration of all kinds and varieties. As a way of learning from others, teachers emphasised the value of observing good practice within one's own context. Observing good practice should be a fundamental component within the newly implemented mentoring scheme. Research shows that observation is an effective way of improving teaching and learning (Darling-Hammond and Richardson, 2009), and teachers already value the

benefits of observation. The mentoring scheme should lead the way to the development of a supportive CPD structure which encourages and promotes peer observations amongst Maltese PE teachers.

Despite these clear opportunities, challenges remain. Maltese teachers are currently faced with (i) the shift towards co-educational schools which is in process, and ongoing; (ii) the need to be upskilled in relation to differentiated teaching, which will enable them to match/meet increasingly diverse cohorts of students' needs; and, on top of this, (iii) the implementation of the new LOF. PE teachers need to feel the presence of the EO and the HODs within their schools in order to help them bridge the gap between what is expected from them by the Education Department and the daily situation they face in schools. These PE-CPD providers are a channel of communication between the dictates of the external environment (i.e. the NCF and the LOF) and the actual translation of these into work practices for teachers. A recent barrier was the lack of human resources available in order to manage all schools. The Education Department must now seriously reconsider priorities of investment and start investing more in monitoring and human resources.

For effective collaboration within the school, SMTs need to adopt an instructional leadership style, which encourages collaboration and creates opportunities for teachers to work together. This can be achieved by strengthening the function of SDP focus groups in schools, leading to teachers developing a greater sense of ownership by actually implementing their own suggestions and measuring their impact. The newly implemented mentoring scheme and the set-up of the Institute for Education are two structures that can lead the way forward towards professional

collaboration and support SMTs and CPD providers in creating the right CPD provision for teachers.

6.4 Concluding comments

Given the relative lack of empirical evidence in this context, the present study might be regarded as a first step in the field of PE-CPD research amongst Maltese PE teachers. The findings here illustrate the challenges which PE teachers are facing in relation to CPD during a period of what feels like continuous change across the Maltese educational system. In the midst of these changes, innovative measures related to CPD are being implemented. Teachers recognise this, but some uncertainty remains. The effectiveness of these measures will have on PE teachers' professional knowledge and on the performance of their students is something to be robustly measured and evaluated. The *perceived* effectiveness of PE-CPD in Malta has been assessed in this research; the effectiveness of PE-CPD in Malta remains to be researched in terms of *actual* impact. This and other questions can be profitably explored in future studies. This will enable educational authorities and provides to create and commit to a long-term, evidence-based, and robust PE-CPD model. This research has provided a place to start – i.e. from the perceptions and preferences of the teachers themselves and with due consideration to the current contribution and input of all of the many stakeholders which play a role in effective education.

Appendices

APPENDIX 1: INTERVIEW WITH TEACHERS

General information about the participant

- a. Biographical details – years of experience, qualifications
- b. What made you want to become a PE teacher?
- c. What do you consider is the most important aspect of PE? What is your philosophy as PE teacher?

Sources of knowledge

- a. Describe your best PE lesson ever. Why do you consider it to be the best?
- b. Based on the key elements of this lesson – where did you learn about that?
- c. Did your knowledge change over the years?
- d. If yes, what or who helped you change?
- e. If not, what are the barriers that hindered change? Or you didn't think it necessary to change?

CPD Experiences

- a. What in your opinion is CPD?
- b. In what ways did the CPD experiences you participated in have an impact on your knowledge, practices and students' performance?
- c. Do you consider formal or informal CPD experiences to be the most effective?

The annual INSET course

- a. In what ways has the annual INSET course helped you?
- b. Is the content and type of activities organised during this INSET course relevant for you?
- c. If you were the provider, what would you change? How and what content would you deliver in the coming INSET course (July 2015)

PD sessions at school – 3 afternoons per scholastic year

- a. Have you ever found these PD sessions effective? In what ways?
- b. What type of activities do you engage in during these sessions?
- c. Do they address specific PE teachers' needs?
- d. In what ways does the school encourage / hinder teachers in pursuing PD activities outside school?

The weekly scheduled PE meeting

- a. Describe the atmosphere during the weekly meeting. Formal / Informal?
- b. Within your PE department, in what ways do you collaborate with each other?
- c. What type of follow-up is there?

The Role of the EO and the HOD (state schools only)

- a. Are you aware of what are the role descriptions of both the EO and the HOD?
- b. Do you meet regularly? If yes, in what ways and in which context?
 1. In what ways do you collaborate with the other PE teachers teaching within your same college?
 2. Are you aware of what the collective agreement for teachers signed in 2010 states about PD?

APPENDIX 2: LETTER TO THE HEAD OF SCHOOL

An analysis of the professional development of Physical Education teachers in Malta

Anna Maria Gatt

[REDACTED]
[REDACTED]
Email: [REDACTED]

Phone: [REDACTED]

Dear Head of School,

I, the undersigned, am currently reading for a Master's Degree in Research at the University of Birmingham specialising in PE and Sport Pedagogy. For my study, under the supervision of Dr. Kyriaki Makopoulou, I need to interview a group of PE teachers about the opportunities regarding professional development for PE teachers in Malta. The interview will be semi-structured and held at a convenient time for the teachers chosen. The members of your staff who have provisionally accepted are N.N. and N.N.

All ethical procedures have been approved by the University of Birmingham Ethical Review Committee. All information provided will be treated in strict confidence and any records kept will be anonymous (i.e. codes will be allocated to all research participants and the setting in which they work). Please find attached Participant Information Sheet which I will be giving to each participating teacher. Once practitioners have read this information and asked any questions they may have, they will be asked to complete an Informed Consent Form (enclosed). Participants may withdraw at any stage of the study. In such case, all data will be deleted.

I hope you will give permission to your teachers to participate in this research, by filling in the form attached to this letter. If you have any queries concerning the information presented here please do not hesitate to contact me on [REDACTED] or via email [REDACTED]

Yours sincerely,

Anna Maria Gatt

PERMISSION FORM – HEADS OF SCHOOL

**An analysis of the professional development of Physical Education teachers in
Malta**

The purpose and details of this study have been explained to me. I understand that this study is designed to further scientific knowledge and that all procedures have been approved by the University of Birmingham Ethical Review Committee.

I have read and understood the participant information sheets, the letter directed to myself, and this consent form. I have had an opportunity to ask questions about the participants' involvement in the study. I understand that early year practitioners are under no obligation to take part in the study and that they have the right to withdraw from this study by the end of May 2015 for any reason without being required to explain their reasons for withdrawing. In order to withdraw, they need to contact the researcher. I understand that all the information provided will be treated in strict confidence and will be kept anonymous and confidential.

I give permission to the researchers to use my school as a research site.

School Name _____
Your name _____
Signature _____
Signature of researcher _____
Date _____

APPENDIX 3: PARTICIPANT INFORMATION SHEET (INTERVIEWS)

An analysis of the professional development of Physical Education teachers in Malta

Anna Maria Gatt

What is the purpose of the study?

The proposed study seeks to examine the nature and perceived effectiveness of the existing CPD provision for PE teachers teaching in Malta. More specifically the objectives of this study are to understand the range of CPD forms / activities secondary PE teachers in Malta engage in and what they find effective/ineffective and to examine the assumptions, philosophies and practices of CPD providers within the area of PE in Malta and to explore their views about effective/ineffective CPD.

What will I be asked to do?

You have been chosen to take part in a semi-structured interview. The researcher will meet you in a short face-to-face interview, at a place and time convenient to you. During this interview, you will discuss with the researcher your various CPD experiences and whether these had an impact on your practices or not.

Once I take part, can I change my mind?

Yes. If you wish to withdraw from the study, please contact the researcher by the end of March 2015 so your responses are located and removed. You can withdraw for any reason and you will not be asked to explain your reasons for withdrawing.

Will my taking part in this study be kept confidential?

Yes. All procedures have been approved by the University of Birmingham Ethical Review Committee. All information provided will be treated in strict confidence. All identifying information will be changed and your confidentiality is assured, as pseudonyms are to be used and linked to your data (complying with the University's Data Protection Policy and the University's Records Management Policy). Research data related to future publications might be available for discussion with other researchers, but any identifiable information will not be disclosed at any given point.

If I have some more questions who should I contact?

You are free to contact me at any stage of the project by [REDACTED]
[REDACTED]

Participant Consent form

The purpose and details of this study have been explained to me. I understand that this study is designed to further scientific knowledge and that all procedures have been approved by the University of Birmingham Ethical Review Committee.

I have read and understood the information sheet and this consent form.

I have had an opportunity to ask questions about my participation in the study.

I understand that I am under no obligation to take part in the study – my participation is voluntary.

I understand that I have the right to withdraw from this study by informing the principal investigator by the end of March 2015. I can withdraw for any reason. I will not be required to explain my reasons for withdrawing.

I understand that all the information I provide will be treated in strict confidence and will be kept anonymous and confidential.

I agree to participate in this study.

Your Name _____

Your Signature _____

Signature of investigator _____

Date _____

APPENDIX 4

PE-CPD* provision: the situation in Malta

****Continuing Professional Development (CPD) is defined as all types of professional learning activities (e.g. attending courses, discussing with colleagues, reading research) teachers engage in to enhance their knowledge, improve their practices, and support pupils to learn and progress.***

A research team at the University of Birmingham (Anna Maria Gatt, Supervisor: Dr. Kyriaki Makopoulou) is investigating what opportunities PE teachers in Malta have to engage in Continual Professional Development (CPD). To this end, we have designed a short, survey to:

- explore what CPD opportunities PE teachers engage in (both in and outside their schools) and understand the frequency of their participation;
- understand the nature of CPD impact on their practices and as well as pupil learning (CPD effectiveness); and
- explore what can be done to improve the quality and effectiveness of the available CPD provision.

Please fill in all the questions presented in this questionnaire. All procedures have been approved by the University of Birmingham Ethical Review Committee and all information provided will be treated in strict confidence. The questionnaire is anonymous, thus your confidentiality is assured.

The study is being carried out by Anna Maria Gatt under the supervision of Dr. Kyriaki Makopoulou from the University of Birmingham. This study is part in fulfilment of an MSc by Research in Physical Education and Sport Pedagogy.

July 2015

PART ONE – YOU AND YOUR SCHOOL

1. What is your age? _____

2. What is your gender? Male _____ Female _____

3. Please indicate the highest qualification you have obtained (Please tick only *one* of the following)

PhD _____
Master's degree _____
Bachelor's degree (and qualified teaching status) _____
Teaching Qualification MATC _____
MCAST Sports Diploma _____
Other _____

4. How many years have you been teaching? _____

5. In which type of school are you currently teaching?

State School _____
Church School _____
Independent School _____

6. Which PE content do you teach?

PHE _____
PE Option _____
Both _____
Other (*please specify*) _____

7. What is the approximate number of hours you spend in contact with your students weekly? _____

8. What is approximately your school's population? _____

9. The average number of students on roll in each class _____

PART TWO –CPD PARTICIPATION

1. Over the last two years (or over the last year in case of NQTs), how often did you engage in the following CPD activities? (you can tick more than one option)

CPD activity you engaged in.....	Never	Once every two years	Once a year	Once a term	Once a month	Once a week or more
Meetings during school hours within the school (e.g. SDP sessions)	1	2	3	4	5	6
Meetings after school hours within the school (e.g. PD sessions)	1	2	3	4	5	6
Seminars offered by the Education Department after school	1	2	3	4	5	6
Annual 3-day INSET course	1	2	3	4	5	6
PE Department meetings within the school	1	2	3	4	5	6
Conferences organised by the University of Malta	1	2	3	4	5	6
Sport-related courses organised for PE teachers	1	2	3	4	5	6
Coaching courses (attendance is recognised)	1	2	3	4	5	6
Coaching courses with accreditation (e.g. UEFA licence, IAAF level courses)	1	2	3	4	5	6

Qualification programmes (<i>please specify</i>) _____	1	2	3	4	5	6
Teacher networks or SDP groups	1	2	3	4	5	6
Informal dialogues with colleagues with the aim to improve teaching and learning	1	2	3	4	5	6
Observation of peers to improve teaching and learning	1	2	3	4	5	6
Joint teaching with the aim to improve teaching and learning	1	2	3	4	5	6
Received mentoring or mentored other teachers	1	2	3	4	5	6
Reading literature to improve own knowledge	1	2	3	4	5	6
Reflection upon my own practice to improve teaching and learning	1	2	3	4	5	6
Other (please specify) _____	1	2	3	4	5	6

2a. Would you like to participate in more CPD activities?

Yes _____ No _____

2b. In your view, what are the barriers that might hinder further participation in CPD activities? (e.g., family commitments, expensive registration fees)

PART THREE – VIEWS ON CPD EFFECTIVENESS

1. In your view, to what extent has engagement in the following CPD activities had a positive impact on your practice (**from 0 – no impact at all to 10 – substantial impact**). Please provide an overall judgement about each CPD type in which you engaged over the last two years (or the last year if you are an NQT). **If you didn't engage in any of these activities, choose the N/A option.**

Meetings during school hours within the school (e.g. SDP sessions)	N/A	0	1	2	3	4	5	6	7	8	9	10
Meetings after school hours within the school (e.g. PD sessions)	N/A	0	1	2	3	4	5	6	7	8	9	10
Seminars offered by the Education Department after school	N/A	0	1	2	3	4	5	6	7	8	9	10
Annual 3-day INSET course	N/A	0	1	2	3	4	5	6	7	8	9	10
PE Department meetings within the school	N/A	0	1	2	3	4	5	6	7	8	9	10
Conferences organised by the University of Malta	N/A	0	1	2	3	4	5	6	7	8	9	10
Sport-related courses organised for PE teachers	N/A	0	1	2	3	4	5	6	7	8	9	10
Coaching courses (attendance is recognised)	N/A	0	1	2	3	4	5	6	7	8	9	10
Coaching courses with accreditation	N/A	0	1	2	3	4	5	6	7	8	9	10
Qualification programmes (please specify) _____	N/A	0	1	2	3	4	5	6	7	8	9	10
Teacher networks (e.g., SDP groups)	N/A	0	1	2	3	4	5	6	7	8	9	10
Informal dialogues with colleagues with the aim to improve teaching and learning	N/A	0	1	2	3	4	5	6	7	8	9	10
Observation of peers to improve teaching and learning	N/A	0	1	2	3	4	5	6	7	8	9	1
Joint teaching with the aim to improve teaching and learning	N/A	0	1	2	3	4	5	6	7	8	9	10
Received mentoring or mentored other teachers	N/A	0	1	2	3	4	5	6	7	8	9	10

Reading literature to improve own knowledge	N/A	0	1	2	3	4	5	6	7	8	9	10
Reflection upon my own practice to improve teaching and learning	N/A	0	1	2	3	4	5	6	7	8	9	10

2. How satisfied are you currently with the quality of PE-CPD activities offered throughout the year by the Education Department and your school. Kindly take in consideration the CPD opportunities offered free of charge by the Education Department and your school, and NOT those activities which you voluntary take part in. Rate your level of satisfaction: 0 – not satisfied at all to 10 – highly satisfied.

Out-of-school (e.g. INSET courses)	0	1	2	3	4	5	6	7	8	9	10
Within the school (e.g. PD sessions, SDP meetings)	0	1	2	3	4	5	6	7	8	9	10
Within the school's PE department (e.g. weekly P.E. meeting)	0	1	2	3	4	5	6	7	8	9	10

PART FOUR – EFFECTIVE CPD EXPERIENCE

1. Over the course of your career, can you identify the most effective PE-CPD activity you engaged in?

2. When was this activity held? (write down year and duration of activity)

3. Why did you participate in this CPD activity?

4. Please offer an example to illustrate the impact of this CPD opportunity on your practice (e.g., use of different teaching method)

5. Please offer an example to illustrate the impact of this CPD opportunity on your students (e.g. students more interested, increased participation)

6. Why do you believe the activity you mentioned in question 1 had an impact on your practice? Please note the extent you agree or disagree with the following statements.

This PE-CPD activity had an impact on my practice because....	Totally in disagreement										Totally in agreement
I increased my knowledge on the topic covered during the activity	0	1	2	3	4	5	6	7	8	9	10
The provider / expert was knowledgeable	0	1	2	3	4	5	6	7	8	9	10
The delivery was engaging and stimulating	0	1	2	3	4	5	6	7	8	9	10
I had opportunities to put forward my ideas	0	1	2	3	4	5	6	7	8	9	10
I had opportunities to observe good practice	0	1	2	3	4	5	6	7	8	9	10
I had opportunities to share knowledge and ideas with other teachers	0	1	2	3	4	5	6	7	8	9	10
Good balance of theory and practice was achieved	0	1	2	3	4	5	6	7	8	9	10
The content was innovative (new knowledge / ideas)	0	1	2	3	4	5	6	7	8	9	10
The content was relevant to my needs	0	1	2	3	4	5	6	7	8	9	10
I had opportunities to build upon and expand my existing knowledge	0	1	2	3	4	5	6	7	8	9	10
The ideas shared / presented were realistic and applicable	0	1	2	3	4	5	6	7	8	9	10

PART FIVE – YOUR INSIGHTS

1. Are you given enough opportunities by the Education Department to participate in CPD?

Yes _____ No _____

2. Are you given enough opportunities by the school to participate in CPD?

Yes _____ No _____

3. What can your school do to provide more effective PE-CPD opportunities? (e.g. financial help, reduced workloads)

4. What can the PE Department do to provide more effective PE-CPD opportunities? (e.g. more foreign experts, developing new courses)

5. Which are the areas of greater development demand (e.g. different teaching methods, specific sport content) which you would like to cover in future CPD activities? (*write down as many areas as you want*)

APPENDIX 5: INTERVIEW WITH PE HEAD OF DEPARTMENT

PART 1

- Where is the profession of a PE teacher standing right now? What are your views? And how do others view the PE teacher's profession?
- What has worked well during these last few years?
- What are the challenges facing PE teachers today?
- In your role as HOD, in what ways have you had to represent teachers vis-à-vis these challenges?
- What exists in the current PE-CPD provision to help teachers overcome some of these challenges?
- What opportunities are currently available? What is your role in this process? What is the role of the schools and of individual teachers?
- Is there a consultation process when planning a PE-CPD activity?
- When planning a PE-CPD activity, do you take in consideration the preferred ways of learning of teachers?
- When organising a PE-CPD activity, what type of impact do you want it to leave on both teachers and students? In what ways do you evaluate this impact?
- What are the barriers which you as a CPD provider face when trying to implement new CPD policies?
- How do you measure the effectiveness of the CPD provision?

PART 2

- Collaboration between teachers is one of the preferred ways of learning by teachers. What are the provisions which encourage this collaboration?
- During your visits in schools, have you observed or received any feedback regarding collaboration within schools?
- What are the challenges that hinder collaboration between teachers?
- What good practices have you observed during your visits in schools?
- Can you give me any examples of changes you intend to implement over the coming years?

APPENDIX 6: PARTICIPANT INFORMATION SHEET (HOD INTERVIEW)

An analysis of the professional development of Physical Education teachers in Malta

Anna Maria Gatt

What is the purpose of the study?

The proposed study seeks to examine the nature and perceived effectiveness of the existing CPD provision for PE teachers teaching in Malta. More specifically the objectives of this study are to understand the range of CPD forms / activities secondary PE teachers in Malta engage in and what they find effective/ineffective and to examine the assumptions, philosophies and practices of CPD providers within the area of PE in Malta and to explore their views about effective/ineffective CPD.

What will I be asked to do?

You have been chosen to take part in a semi-structured interview. The researcher will meet you in a short face-to-face interview, at a place and time convenient to you. During this interview, you will discuss with the researcher your philosophies and practices related to the CPD area.

Once I take part, can I change my mind?

Yes. If you wish to withdraw from the study, please contact the researcher by the end of July 2015 so your responses are located and removed. You can withdraw for any reason and you will not be asked to explain your reasons for withdrawing.

Will my taking part in this study be kept confidential?

Yes. All procedures have been approved by the University of Birmingham Ethical Review Committee. All information provided will be treated in strict confidence. All identifying information will be changed and your confidentiality is assured, as pseudonyms are to be used and linked to your data (complying with the University's Data Protection Policy and the University's Records Management Policy). Research data related to future publications might be available for discussion with other researchers, but any identifiable information will not be disclosed at any given point.

If I have some more questions who should I contact?

You are free to contact me at any stage of the project by _____

Participant Consent form

**An analysis of the professional development of Physical Education teachers in
Malta**

The purpose and details of this study have been explained to me. I understand that this study is designed to further scientific knowledge and that all procedures have been approved by the University of Birmingham Ethical Review Committee.

I have read and understood the information sheet and this consent form.

I have had an opportunity to ask questions about my participation in the study.

I understand that I am under no obligation to take part in the study – my participation is voluntary.

I understand that I have the right to withdraw from this study by informing the principal investigator by the end of July 2015. I can withdraw for any reason. I will not be required to explain my reasons for withdrawing.

I understand that all the information I provide will be treated in strict confidence and will be kept anonymous and confidential.

I agree to participate in this study.

Your Name _____

Your Signature _____

Signature of investigator _____

Date _____

LIST OF REFERENCES

Acker, S. (2000), 'In/out/side: Positioning the researcher in feminist qualitative research', *Resources for Feminist Research*, 28 (1/2), 189.

Adey, P., Hewitt, G., Hewitt, J., & Landau, N. (2004). Elaborating the Model. *The Professional Development of Teachers: Practice and Theory*, 155-173.

Aelterman, N., Vansteenkiste, M., Van Keer, H., De Meyer, J., Van den Berghe, L., and Haerens, L. (2013), 'Development and evaluation of a training on need-supportive teaching in physical education: Qualitative and quantitative findings', *Teaching and Teacher Education*, 29, 64-75.

Alfrey, L., Cale, L. and A. Webb, L. (2012), 'Physical education teachers' continuing professional development in health-related exercise', *Physical Education and Sport Pedagogy*, 17(5), 477-491.

Armour, K. (2006). Physical education teachers as career-long learners: A compelling research agenda. *Physical Education and Sport Pedagogy*, 11(3), 203-207.

Armour, K. (2015) The case for 'physical activity education' through the life-course. *Journal of Sport Pedagogy and Research*, 1(8), 4-8

Armour, K. and Chambers, F.C. (2014) 'Sport & Exercise Pedagogy: The case for a new integrative sub-discipline in the field of Sport & Exercise Sciences/Kinesiology/Human Movement Sciences', *Sport, Education and Society*, 19(7), 855-868

Armour, K. and Harris, J. (2013) 'Making the case for developing new PE-for-health pedagogies', *Quest*, 65(2), 201-219.

Armour, K. M., and Jones, R. L. (1998), *Physical education teachers' lives and careers: PE, sport, and educational status*. London: Falmer Press

Armour, K.M. and Makopoulou, K. (2008) *Independent evaluation of the national PE-CPD programme: Final report*. Loughborough: Loughborough University.

Armour, K. M., and Makopoulou, K. (2012), 'Great expectations: Teacher learning in a national professional development programme', *Teaching and Teacher Education*, 28(3), 336–346.

Armour, K. M., and Yelling, M. R. (2004). Continuing professional development for experienced physical education teachers: Towards effective provision. *Sport, education and society*, 9(1), 95-114.

Armour, K. M., Makopoulou, K., and Chambers, F. (2008). Progression in PE teachers' career-long professional learning: Practical and conceptual concerns. In *Annual Meeting of the American Educational Research Association*, New York.

Armour, K., Quennerstedt, M., Chambers, F. and Makopoulou, K. (2015), 'What is 'effective' CPD for contemporary physical education teachers? A Deweyan framework', *Sport, Education and Society*, 1-13

Asselin, M. E. (2003), 'Insider research: Issues to consider when doing qualitative research in your own setting', *Journal for Nurses in Staff Development*, 19(2), 99-103.

Attard Tonna, M. (2015), Conversation with Anna Maria Gatt, 16 July.

Attard Tonna, M. and Calleja, C. (2009) 'Teacher Professional Development and Social Networking: A Case Study of A Professional Learning Experience', in *Proceedings of the 5th EUE-Net Conference on Entrepreneurship and Career Development* (p. 3).

Bailey, R. (2006). Physical education and sport in schools: A review of benefits and outcomes. *Journal of school health*, 76(8), 397-401.

Bain, L. L. (1985) 'The hidden curriculum re-examined', *Quest*, 37(2), 145-153.

Bakker, A. B., Demerouti, E. and Lieke, L. (2012), 'Work engagement, performance, and active learning: The role of conscientiousness', *Journal of Vocational Behaviour*, 80(2), 555-564.

Ball, A. (2012) To know is not enough: knowledge, power and the zone of generativity. *Educational Researcher*, 41(8), 283-293.

Barber, M., & Mourshed, M. (2009). Shaping the future: How good education systems can become great in the decade ahead. McKinsey and Company. Available from: www.mckinsey.com/locations/southeastasia/knowledge/Education_Roundtable.pdf (Accessed: 7 September 2016)

Barnes, S.B. (2004) 'Issues of Attribution and Identification in Online Social Research', in M.D. Johns, S-L.S. Chen and G.J. Hall (eds) *Online Social Research*, pp. 203–22. New York: Peter Lang

Barron, B. (2000). 'Achieving coordination in collaborative problem-solving group', *The Journal of the Learning Sciences*, 9, 403-436.

Bechtel, P. A., and O'Sullivan, M. (2006). 'Effective professional development—What we now know', *Journal of Teaching in Physical Education*, 25, pp. 363 – 378.

Bell, J. (2007). The trouble with questionnaires. *Research methods in educational leadership and management*, 2, 224-236.

Bell, B. S. and Kozlowski, S. W. (2008), 'Active learning: effects of core training design elements on self-regulatory processes, learning, and adaptability', *Journal of Applied psychology*, 93(2), 296

Bendikson, L., Robinson, V., & Hattie, J. (2012). Principal instructional leadership and secondary school performance. *SET: Research information for teachers*, (1), 2.

Bennett, C. (1975) 'Up the hierarchy', *Journal of Extension* 13(2), pp. 7-12.

Bennett, J., Braund, M. and Lubben, F. (2010). 'The impact of targeted CPD on teachers' professional attitudes and classroom practice.' Paper presented at the *International Seminar Professional Reflections*, National Science Learning Centre, York, February [online], Available: <https://www.sciencelearningcentres.org.uk/impact-andresearch/research/researchseminars/NSLC%20UYSEG%20seminar%20Bennett.pdf> (Accessed: 3 May 2015).

Bergman, D. (2015), 'Comparing the Effects of Classroom Audio-Recording and Video-Recording on Preservice Teachers' Reflection of Practice', *The Teacher Educator*, 50(2), 127-144.

Bezzina, C. (2006), 'Views from the trenches: Beginning teachers' perceptions about their professional development', *Journal of In-Service Education*, 32(4), 411-430.

Billett, S. and Choy, S. (2011) 'Cooperative and work-integrated education as a pedagogy for lifelong learning', *International handbook for cooperative and work-integrated education*, 25-30.

Birks, M. and Mills, J. (2015). *Grounded theory: A practical guide*. Sage. 2nd edition

Birman, B. F., Desimone, L., Porter, A. C., and Garet, M. S. (2000) 'Designing professional development that works', *Educational leadership*, 57(8), 28-33.

Black, P. & William, D. (1998) *Inside the black box: raising standards through classroom assessment*. London: King's College London, School of Education.

Bolam, R., McMahon, A., Stoll, L., Thomas, S. and Wallace, M. (2005) *Creating and sustaining effective professional learning communities*. London: Department for Education and Skills.

Bolden, B., Christou, T., DeLuca, C., Klinger, D., Kutsyuruba, B., Pyper, J., and Wade-Woolley, L. (2014). Professional learning cultures: An evaluation of collaborative inquiry in Ontario elementary schools.

Borg, M.G. and Giordmaina, J. (2012) *Towards a Quality Education for All – The College System Examining the Situation*. Report presented to the Malta Union of Teachers on 11 June, unpublished. Available at: <https://mut.org.mt/information/research/> (Accessed: 14 June 2016)

Borko, H. (2004), 'Professional development and teacher learning: Mapping the terrain', *Educational researcher*, 33(8), 3-15.

Boud, D., and Hager, P. (2012) 'Re-thinking continuing professional development through changing metaphors and location in professional practices', *Studies in Continuing Education*, 34(1), 17-30.

Broad, J. H. (2015), 'So many worlds, so much to do: Identifying barriers to engagement with continued professional development for teachers in the further education and training sector', *London Review of Education*, 13(1), 16-30.

Buhagiar M. and Attard Tonna, M. (2015) *School-based Mentoring in Initial Teacher Education*. Msida: Faculty of Education, University of Malta

Burn, K., and Mutton, T. (2015). A review of 'research-informed clinical practice' in Initial Teacher Education. *Oxford Review of Education*, 41(2), 217-233.

Butt, G., and Macnab, N. (2013), 'Making connections between the appraisal, performance management and professional development of dentists and teachers: right, what are the problems we've got and how could we sort this out?', *Professional development in education*, 39(5), 841-861.

Caena, F. (2011). Literature review Quality in Teachers' continuing professional development. *Education and training*, 2020.

Calleja, J. and Grima, G. (2012) 'Learning together, inspiring success' in Ministry of Education and Employment, A National Curriculum Framework for All, Floriana, Malta: Ministry for Education and Employment, pp. ix-x.

Cale, L., Harris, J., & Chen, M. H. (2014). Monitoring health, activity and fitness in physical education: its current and future state of health. *Sport, Education and Society*, 19(4), 376-397.

Carroll, T. G., Fulton, K., and Doerr, H. (2010). Team Up for 21st Century Teaching and Learning: What Research and Practice Reveal about Professional Learning. Condensed Excerpts. *National Commission on Teaching and America's Future*.

Caruana, S. (2015), Conversation with Anna Maria Gatt, 2 July.

Caselli, S. (2010), 'Governance and strategy within the financial system: tradition and innovation', *Journal of Management & Governance*, 14(3), 241-271

Casey, A. (2013), 'Practitioner research A means of coping with the systemic demands for continual professional development?', *European Physical Education Review*, 19(1), 76-90

Chapman, D.J. (2016), *Teacher Perspectives on Co-teaching in a Content Classroom with English Language Support*. School of Education Student Capstones and Dissertations. Paper 4102. Available at: http://digitalcommons.hamline.edu/cgi/viewcontent.cgi?article=5101&context=hse_all Accessed: 11 September 2016.

Cherry, K. (2016), *What Is a Cross-Sectional Study? The Advantages and Challenges of Cross-Sectional Studies*. Available at: <https://www.verywell.com/what-is-a-cross-sectional-study-2794978> [Accessed: 10 September 2016]

Cohen, D. K. and Hill, H. C. (2000), 'Instructional policy and classroom performance: the mathematics reform in California', *Teachers College Record*, 102 (2), pp. 294±343.

Cohen, L., Manion, L., and Morrison, K. (2007). *Research methods in education*. New York: Routledge.

Colley, H., Hodkinson, P., & Malcolm, J. (2002). Non-formal learning: mapping the conceptual terrain, a consultation report.

Collin, K., Van der Heijden, B., and Lewis, P. (2012), 'Continuing professional development,' *International journal of training and development*, 16(3), 155-163

Conway, P. F., Murphy, R., Rath, A. and Hall, K. (2009), 'Learning to teach and its implications for the continuum of teacher education: A nine-country cross-national study', *Report Commissioned by the Teaching Council: Ireland*.

Corbin, J. and Strauss, A. (2008) *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. 3rd edn. California: Sage Publications Inc.

Cordingley, P., Bell, M., Thomason, S., and Firth, A. (2005), 'The impact of collaborative continuing professional development (CPD) on classroom teaching and learning', *Review: How do collaborative and sustained CPD and sustained but not collaborative CPD affect teaching and learning*.

Cotton, D., Winter, J. and Bailey, I. (2013), 'Researching the hidden curriculum: intentional and unintended messages', *Journal of geography in higher education*, 37(2), 192-203.

Craft, A. (2002). *Continuing professional development: A practical guide for teachers and schools*. Routledge.

Cushion, C.J., Armour, K.M. and Jones, R.L. (2003) 'Coach Education and Continuing Professional Development: Experience and Learning to Coach', *Quest*, (55), 215-230.

Dall'Alba, G. (2009). Learning professional ways of being: Ambiguities of becoming. *Educational Philosophy and Theory*, 41(1), 34-45.

Darling-Hammond, L. & Richardson, N. (2009). Research Review. Teacher Learning: What Matters? How teachers learn, February 2009, 66 (5), 46-53.

Darling-Hammond, L. (2012). *Powerful teacher education: Lessons from exemplary programs*. California: John Wiley and Sons.

Day, C., & Leith, R. (2007). The continuing professional development of teachers: Issues of coherence, cohesion and effectiveness. In *International handbook of school effectiveness and improvement* (pp. 707-726). Springer Netherlands.

Day, C. (1999). *Developing teachers: The challenges of lifelong learning*. London: Falmer Press.

Day, C. and Sachs, J. (2004) 'Professionalism, performativity and empowerment: discourses in the politics, policies and purposes of continuing professional development' in Day, C. and Sachs, J. (eds.), *International handbook on the continuing professional development of teachers* (pp. 3e10). Maidenhead, UK: Open University Press

Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational researcher*, 38(3), 181-199.

Desimone, L. M. (2011), 'A primer on effective professional development', *Phi Delta Kappan*, 92(6), 68–71.

Desimone, L. M. and Le Floch, K. C. (2004), 'Are we asking the right questions? Using cognitive interviews to improve surveys in education research', *Educational evaluation and policy analysis*, 26(1), 1-22.

Desimone, L. M., and Garet, M. S. (2015). Best practices in teachers' professional development in the United States. *Psychology, Society and Education*, 7(3), 252-263.

De Vries, S., Van de Grift, W. J., and Jansen, E. P. (2014). How teachers' beliefs about learning and teaching relate to their continuing professional development. *Teachers and Teaching*, 20(3), 338-357.

Dewey, J. (1916/1951). *Democracy and education*. New York: The Macmillan Company.

Dewey, J. (1958) *Experience and Nature* (2nd Edn.) New York: Dover.

Dewey, J. (2011) *Democracy and education* (New Ed.). LaVergne, TN: Simon & Brown.

Dewey, J. (2015) *Experience and education* (New Ed.). New York: Free Press.

Di Nauta, P., Merola, B., Caputo, F. and Evangelista, F. (2015), 'Reflections on the role of university to face the challenges of knowledge society for the local economic development,' *Journal of the Knowledge Economy*, 1-19

Duranti, A. (2006), 'Transcripts, like shadows on a wall', *Mind, Culture & Activity*, 13(4), 301-310.

Dwyer, S. C. and Buckle, J. L. (2009), 'The space between: On being an insider-outsider in qualitative research', *International journal of qualitative methods*, 8(1), 54-63.

Eckman, S., Kreuter, F., Kirchner, A., Jäckle, A., Tourangeau, R., & Presser, S. (2014), 'Assessing the mechanisms of misreporting to filter questions in surveys', *Public Opinion Quarterly*, 78(3), 721-733.

Education Act, Chapter 327 of the Laws of Malta.

Elliot, D. L., and Campbell, T. (2015). 'Really on the ball': exploring the implications of teachers' PE-CPD experience. *Sport, Education and Society*, 20(3), 381-397.

Ennis, C. D. (2015). Knowledge, transfer, and innovation in physical literacy curricula. *Journal of sport and health science*, 4(2), 119-124.

Eraut, M. (2004), 'Informal learning in the workplace', *Studies in continuing education*, 26(2), 247-273.

Eraut, M. (2007), 'Learning from other people in the workplace', *Oxford review of education*, 33(4), 403-422.

Etherington, K. (2004). *Becoming a reflexive researcher: Using ourselves in research*. London: Jessica Kingsley Publishers.

European Commission/EACEA/Eurydice, (2012) *Key Data on Teachers and School Leaders in Europe. Eurydice Report*. Luxembourg: Publications Office of the European Union.

European Commission/EACEA/Eurydice, (2013) *Key Data on Teachers and School Leaders in Europe. Eurydice Report*. Luxembourg: Publications Office of the European Union.

European Commission (2016) *Education and Training: Supporting Education and Training in Europe and Beyond*. Available at: http://ec.europa.eu/education/policy/strategic-framework/index_en.htm (Accessed: 4 May 2016)

Evans, L. (2008), 'S/he who pays the piper calls the tune: a critical perspective on CPD for the research profession', In *3rd ILL/CRPE Research Conference Professional Lifelong Learning: Critical Perspectives* University of Leeds: Leeds (Vol. 24).

Evans, L. (2011), 'The shape of teacher professionalism in England: Professional standards, performance management, professional development and the changes proposed in the 2010 White Paper', *British educational research journal*, 37(5), 851-870.

Felstead, A., Fuller, A., Unwin, L., Ashton, D., Butler, P., and Lee, T. (2005), 'Surveying the scene: learning metaphors, survey design and the workplace context', *Journal of education and work*, 18(4), 359-383.

Fisher, A., & Carlyon, T. (2015). School leaders growing leadership from within: A framework for the development of school leaders. *Waikato Journal of Education*, 20(2).

Flores, M.A. (2015), 'Teacher learning and learning from teaching', *Teachers and Teaching*, 21(1), 1-3.

Forte, A. and Flores, M. A. (2014), 'Teacher collaboration and professional development in the workplace: A study of Portuguese teachers', *European Journal of Teacher Education*, 37, 91–105.

Fox, A. R. and Wilson, E. G. (2015), 'Networking and the development of professionals: Beginning teachers building social capital', *Teaching and Teacher Education*, 47, 93-107.

Fraser, C., Kennedy, A., Reid, L. and Mckinney, S. (2007), 'Teachers' continuing professional development: contested concepts, understandings and models', *Journal of in-service education*, 33(2), 153-169.

Friedman, A. and Phillips, M. (2001) 'Leaping the CPD hurdle: a study of the barriers and drivers to participation in Continuing Professional Development', *British Educational Research Association Annual Conference*. University of Leeds, 13 – 15 September 2001. Bristol: Professional Associations Research Network, Management Research Centre. Available at: <http://www.leeds.ac.uk/educol/documents/00001892.htm> (Accessed: 6 May 2016)

Friedman, A. and Phillips, M. (2004) 'Continuing professional development: Developing a vision,' *Journal of education and work*, 17(3), 361-376.

Frost, D. (2012). From professional development to system change: teacher leadership and innovation. *Professional Development in Education*, 38(2), 205-227.

Fullan, M. (2010). *The moral imperative realized*. Thousand Oaks, CA: Corwin Press.

Fullan, M. and Hargreaves, A. (Eds.). (2014). *Change wars*. Bloomington, IN: Solution Tree Press.

Fuller, A. and Unwin, L. (2003), 'Learning as apprentices in the contemporary UK workplace: creating and managing expansive and restrictive participation', *Journal of Education and work*, 16(4), 407-426.

Fuller, A., Hodkinson, H., Hodkinson, P. and 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.

Galea, N. (2016), Conversation with Anna Maria Gatt, 21 April 2016.

Garet, M.S., A.C. Porter, L. Desimone, B.F. Birman, & K.S. Yoon. (2001) 'What makes professional development effective? Results from a national sample of teachers', *American Educational Research Journal*, 38(4), 915–45

Gately, S. and Gately, F. (2001), 'Understanding co-teaching components', *Teaching Exceptional Children*, 33(4), 40–47.

Goodall, J., Day, C., Lindsay, G., Muijs, D., and Harris, A. (2005). *Evaluating the impact of continuing professional development (CPD)* (No. Reference: RR659). London: Department for Education and Skills.

Gorard, S., Fevre, R., and Rees, G. (1999), 'The apparent decline of informal learning', *Oxford Review of Education*, 25(4), 437-454.

Gorard, S. and Makopoulou, K. (2012) 'Is mixed methods the natural approach to research?' *Research methods in physical education and youth sport*, 106-119.

Government of Malta (2013) *PE Curriculum: The Primary Years*. Available at: https://curriculum.gov.mt/en/Curriculum/Years-1-to-6/Documents/pr_syllabi/primary_pe_curriculum.pdf (Accessed: 4 October 2015).

Government of Malta (2014) *PE Curriculum: The Secondary Years*. Available at: <https://curriculum.gov.mt/en/Curriculum/Pages/default.aspx> (Accessed: 8 October 2015).

Government of Malta (2015) *Public Service Management Code*. Available at: <https://opm.gov.mt/en/PAHRO/ERM/Pages/PSMC/PSMC.aspx> (Accessed: 14 June 2016)

Grohmann, A., and Kauffeld, S. (2013). Evaluating training programs: Development and correlates of the questionnaire for professional training evaluation. *International Journal of Training and Development*, 17(2), 135-155.

Gudmundsdottir, G. B. and Brock-Utne, B. (2010), 'An exploration of the importance of piloting and access as action research', *Educational Action Research*, 18(3), 359-372.

Guskey, T. R. (2000). *Evaluating professional development*. Thousand Oaks, Ca, Corwin Press

Hadar, L. L. and Brody, D. L. (2013), 'The interaction between group processes and personal professional trajectories in a professional development community for teacher educators', *Journal of Teacher Education*, 64(2), 145-161.

Hahs-Vaughn, D., Zygoris-Coe, V., & Fiedler, R. (2007). A hybrid evaluation model for evaluating online professional development 1. *Technology, Pedagogy and Education*, 16(1), 5-20.

Harrison, C. (2013), 'Collaborative action research as a tool for generating formative feedback on teachers' classroom assessment practice: the KREST project', *Teachers and Teaching*, 19(2), 202-213.

Hart, F. R. (1987), 'Teachers observing teachers', In *Teaching at an urban university*, ed. J. H. Broderick, pp.15–24. Boston: Centre for the Improvement of Teaching, University of Massachusetts at Boston.

Hassan, E. (2005), 'Recall Bias can be a Threat to Retrospective and Prospective Research Designs', *The Internet Journal of Epidemiology*, (3) 2.

Hobson, A., Maxwell, B., Stevens, A., Doyle, K. and Malderez, A. (2015) 'Mentoring and coaching for teachers in the further education and skills sector in England'. Available at: <http://www.gatsby.org.uk/uploads/education/reports/pdf/mentoring-and-coaching-in-fe.pdf>. Accessed: 4 September 2016.

Hoerr, T.R. (2008), 'What is instructional leadership?' *Educational Leadership January*: 84–85.

Honigsfeld, A. and Dove, M. G. (2010) *Collaboration and co-teaching: Strategies for English learners*. Thousand Oaks, Calif: Corwin Press.

Hiver, P. (2013) 'The interplay of possible language teacher selves in professional development choices', *Language Teaching Research*, 17(2), 210-227

Hodkinson, P., and Hodkinson, H. (2003) 'Individuals, communities of practice and the policy context: School teachers' learning in their workplace', *Studies in continuing education*, 25(1), 3-21.

Hoyle, E. (2012) 'and deprofessionalization in education', *World yearbook of education 1980: The professional development of teachers*, 42.

Hunzicker, J. (2010). *Characteristics of Effective Professional Development: A Checklist*. Available at: <http://files.eric.ed.gov/fulltext/ED510366.pdf> (Accessed: 3 September 2016)

Hunzicker, J. (2011) 'Effective professional development for teachers: A checklist', *Professional development in education*, 37(2), 177-179.
Ingvarson, L., Meiers, M. and Beavis, A. (2005), 'Factors affecting the impact of professional development programs on teachers' knowledge, practice, student outcomes & efficacy.

Institute for Education (Establishment) Order. Legal Notice 140 of 2015.

Iyer, Ramajanaki Doraiswamy, (2013), 'Servant Leadership in Teaching', *International Journal of Human Resource Studies* 3.1: 100.

Jacob, S. A. and Furgerson, S. P. (2012), 'Writing interview protocols and conducting interviews: Tips for students new to the field of qualitative research', *The Qualitative Report*, 17(42), 1-10

Johnson, S. M., Kraft, M. A. and Papay, J. P. (2012), 'How context matters in high-need schools: The effects of teachers' working conditions on their professional satisfaction and their students' achievement', *Teachers College Record*, 114(10), 1-39.

Johnson, R. and Waterfield, J. (2004), 'Making words count: the value of qualitative research', *Physiotherapy Research International*, 9(3), 121-131.

Johnson, R. B., Onwuegbuzie, A. J., and Turner, L. A. (2007), 'Toward a definition of mixed methods research', *Journal of mixed methods research*, 1(2), 112-133.

Kennedy, A. (2005). 'Models of continuing professional development: a framework for analyses', *Journal of in-service education*, 31(2), 235-250.

Kennedy, A. (2014). 'Understanding continuing professional development: the need for theory to impact on policy and practice', *Professional development in education*, 40(5), 688-697.

King, F. (2014), 'Evaluating the impact of teacher professional development: an evidence-based framework', *Professional development in education*, 40(1), 89-111.

Kirk, D. (1992), 'Physical education, discourse, and ideology: Bringing the hidden curriculum into view', *Quest*, 44(1), 35-56.

Kirkpatrick, D.L. and Kirkpatrick, J.D. (2006) *Evaluating Training Programmes: The Four Levels* (3rd edn.) San Francisco, CA: Benett-Koehler Publishers Inc.

Kling, R. and Courtright, C. (2003), 'Group behavior and learning in electronic forums: a sociotechnical approach', *The Information Society*, 19, 221-235.

Knight, P. (2002). 'A systematic approach to professional development: Learning as practice', *Teaching and Teacher Education*, 18, 229–241.

Knowles, M., Holton, E. and Swanson, R. (2015) *The Adult Learner* (8th edn.) New York: Routledge

Kohut, G. F., Burnap, C. and Yon, M. G. (2007), 'Peer observation of teaching: Perceptions of the observer and the observed', *College Teaching*, 55(1), 19-25.

Kolb, S. M. (2012), 'Grounded theory and the constant comparative method: Valid research strategies for educators', *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(1), 83.

Kolsaker, A. (2008) 'Academic professionalism in the managerialist era: A study of English universities', *Studies in Higher Education*, 33(5), 513-525.

Lee, W. O. (2014), 'Lifelong learning and learning to learn: an enabler of new voices for the new times', *International Review of Education*, 60, pp. 463–479

Leithwood, K., and Azah, V. N. (2016). Characteristics of effective leadership networks. *Journal of Educational Administration*, 54(4).

Levin, K.A. (2006), 'Study design III: Cross-sectional studies', *Evid. Based Dent* (7) 24-5

Little, J. W. (2012), 'Professional community and professional development in the learning-centred school,' *Teacher learning that matters: International perspectives*, 22-46.

Livingston, K. (2012). Approaches to professional development of teachers in Scotland: pedagogical innovation or financial necessity? *Educational Research*, 54(2), 161-172.

Loucks-Horsley, S., Stiles, K.E., Mundry, S., Love, N. and Hewson, P.W. (2010) *Designing Professional Development for Teachers of Science and Mathematics*. 3rd edn. Thousand Oaks, CA: Corwin.

Main, K. and Pendergast, D. (2015), 'Core Features of Effective Continuing Professional Development for the Middle Years: A Tool for Reflection', *RMLE Online*, 38(10), 1-18.

Makopoulou, K. and Armour, K. (2011) 'Teachers' professional learning in a European learning society: the case of physical education', *Physical Education & Sport Pedagogy*, 16(4), 417-433.

Malcolm, J., Hodkinson, P. and Colley, H. (2003). The interrelationships between informal and formal learning. *Journal of workplace learning*, 15(7/8), 313-318.

Marsick, V. J., and Watkins, K. (2015). *Informal and Incidental Learning in the Workplace* (Routledge Revivals). Routledge

Mason, J. (2002). *Qualitative researching* (2nd edn.). London: Sage.

Matzat, U. (2013), 'Do blended virtual learning communities enhance teachers' professional development more than purely virtual ones? A large scale empirical comparison,' *Computers & Education*, 60(1), 40-51.

McLeod, N. (2015), 'Reflecting on reflection: improving teachers' readiness to facilitate participatory learning with young children', *Professional Development in Education*, 41(2), 254-272.

McMurray, S., O'Neill, S., and Thompson, R. (2016) 'An innovative model for professional development', *Journal of Research in Special Educational Needs*, 16(S1), 145-149.

McNiff, J. (2013) *Action Research: Principles and Practice*. 3rd edn. New York: Routledge.

Meirink, J. A., Meijer, P. C., Verloop, N. and Bergen, T. C. M. (2009), 'How do teachers learn in the workplace? An examination of teacher learning activities', *European Journal of Teacher Education*, 32, 209–224.

Ministry of Education (2000) *Creating the Future Together - National Minimum Curriculum*. Floriana, Malta: Ministry of Education.

Ministry for Education, Youth and Employment (2004) *Knowing Our School*, Floriana, Malta: Department of Operations.

Ministry for Education, Youth and Employment (2005) *For All Children to Succeed: A New Network Organisation for Quality Education in Malta*, Floriana, Malta: Department of Operations.

Ministry of Education, Youth and Employment (2007) *Job Descriptions Handbook*. Floriana, Malta: Ministry of Education, Youth and Employment.

Ministry for Education and Employment (2012) *A National Curriculum Framework for All*. Available at: <http://curriculum.gov.mt/en/resources/the-ncf/pages/default.aspx> (Accessed: 15 March 2015).

Ministry for Education and Employment (2013) *TIMSS 2011 Malta Report*. Available at: <https://researchanddevelopment.gov.mt/en/Documents/TIMSS%202011%20Malta%20Report.pdf> (Accessed: 4 February 2016).

Ministry for Education and Employment (2014) *Framework for the Educational Strategy for Malta 2014 – 2024*. Available at: <https://education.gov.mt/strategy/Documents/BOOKLET%20ESM%202014-2024%20ENG%2019-02.pdf>. Accessed: 14 July 2016.

Ministry for Education and Employment (2015) *Learning Outcomes Framework*. Available at: <http://www.schoolslearningoutcomes.edu.mt/en/> (Accessed: 19 November 2015).

Ministry for Education and Employment (2015) *Master in Teaching and Learning as the new route into Initial Teacher Education* [Press Release]. 15 July. Available at: <https://www.gov.mt/en/Government/Press%20Releases/Pages/2014/July/15/pr141609.aspx> (Accessed: 17 August 2016).

Muijs, D. and Lindsay, G. (2008), 'Where are we at? An empirical study of levels and methods of evaluating continuing professional development', *British educational research journal*, 34(2), 195-211.

Nabeel Al-Yateem RN, M. S. N. (2012), 'The effect of interview recording on quality of data obtained: a methodological reflection', *Nurse researcher*, 19(4), 31.

National Statistics Office, (2014), *Census of Population and Housing: Final Report 2011*. Valletta Malta: NSO

Nelson, L., Cushion, C., and Potrac, P. (2006), 'Formal, non-formal and informal coach learning: A holistic conceptualisation', *International Journal of Sports Science and Coaching*, 1(3), 247-259.

Netolicky, D. M. (2016). Rethinking professional learning for teachers and school leaders. *Journal of Professional Capital and Community*, 1(4).

Newham, J. (2014) *Private Schools for Expats in Malta*. Available at: <http://www.expatriefinding.com/country/malta/education/private-schools-for-expats-in-malta.html> (Accessed: 5 September, 2016).

Nicolaidou, M. and Petridou, A. (2011). Evaluation of CPD programmes: challenges and implications for leader and leadership development. *School effectiveness and school improvement*, 22(1), 51-85.

OECD (2010), *TALIS 2008 Technical Report*, OECD Publishing, Paris.

OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing

OECD (2016), *TALIS - The OECD Teaching and Learning International Survey*. Available at: <https://www.oecd.org/edu/school/talis.htm> (Accessed: 10 July 2016)

Opfer, V. D., & Pedder, D. (2010), 'Benefits, status and effectiveness of continuous professional development for teachers in England', *The curriculum journal*, 21(4), 413-431.

Opfer, V. D. and Pedder, D. (2011), 'Conceptualizing teacher professional learning', *Review of educational research*, 81(3), 376-407.

O'Sullivan, M. (2007), 'Creating and sustaining communities of practice among physical education professionals', *New Zealand physical educator*, 40(1), 10.

O'Sullivan, M., and Deglau, D. (2006). Principles of professional development. *Journal of teaching in physical education*, 25(4), 441-449.

Paretti, M. C. (2008) 'Teaching communication in capstone design: The role of the instructor in situated learning', *Journal of Engineering Education*, 97(4), 491.

Pearson, S., Scott, P., & Sugden, D. (2011). Applying metaphors for learning to continuing professional development (CPD), in the context of a course for Special Educational Needs Coordinators (SENCOs). *Journal of Research in Special Educational Needs*, 11(1), 42-54.

Pedder, D., and Opfer, V. D. (2013). Professional learning orientations: patterns of dissonance and alignment between teachers' values and practices. *Research Papers in Education*, 28(5), 539-570.

Pedder, D., Opfer, V.D., McCormick, R. and Storey, A. (2010), 'Schools and Continuing Professional Development in England - State of the Nation' research study: policy context, aims and design', *Curriculum Journal*, 21: 4, 365 — 394.

Penney, D. and Jess, M. (2004) 'Physical education and physically active lives: A lifelong approach to curriculum development', *Sport, Education and Society*, 9(2), 269–87.

Penuel, W. R., Fishman, B. J., Yamaguchi, R., and Gallagher, L. P. (2007), 'What makes professional development effective? Strategies that foster curriculum implementation', *American Educational Research Journal*, 44(4), 921-958

Polkinghorne, D. E. (2005), 'Language and meaning: Data collection in qualitative research', *Journal of counseling psychology*, 52(2), 137

Popkewitz, Thomas S. (2011) *Paradigm and ideology in educational research: The social functions of the intellectual. Vol. 191*. New York: Routledge.

Postholm, M. B. (2012). 'Teachers' professional development: a theoretical review', *Educational Research*, 54(4), 405-429.

Postholm, M. B., and Wæge, K. (2016), 'Teachers' learning in school-based development', *Educational Research*, 58(1), 24-38.

Poulos, J., Culberston, N., Piazza, P., & D'Entremont, C. (2014). Making space: The value of teacher collaboration. *The Education Digest*, 80(2), 28.

Priestley, M., Edwards, R., Priestley, A., and Miller, K. (2012), 'Teacher agency in curriculum making: Agents of change and spaces for manoeuvre', *Curriculum Inquiry*, 42(2), 191-214.

Rabionet, S. E. (2011) 'How I learned to design and conduct semi-structured interviews: An ongoing and continuous journey', *The Qualitative Report*, 16(2), 563.

Ribbins, P. (2007). Interviews in educational research: Conversations with a purpose. *Research methods in educational leadership and management*, 2, 207-223.

Riegler, A. (2012). 'Constructivism' In *Paradigms in theory construction* (pp. 235-255) New York: Springer.

Robinson, V., Lloyd, C., & Rowe, K. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. *Educational Administration Quarterly* 44(5), 635–674

Roesken-Winter, B., Schüler, S., Stahnke, R., & Blömeke, S. (2015). Effective CPD on a large scale: examining the development of multipliers. *ZDM*, 47(1), 13-25.

Saldaña, J. (2012). *The Coding Manual for Qualitative Researchers*. 2nd edn. London: Sage Publications Ltd.

Sawyer, R. K. (2006), 'Introduction: The new science of learning', In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (pp. 1–18). New York, NY: Cambridge University Press

Sedgwick, P. (2014), *Cross sectional studies: advantages and disadvantages* BMJ

Available at:

<https://fhs.mcmaster.ca/anesthesiaresearch/documents/Sedgwick2014Crosssectionalstudies-advantagesanddisadvantages.pdf> [Accessed: 14 September 2016]

Senge, P. (1992), *The fifth discipline: the art and practice of the learning organization*. London: Century Business.

Senge, P. (2006), *The fifth discipline: the art and practice of the learning organization* (Rev. Ed.). London: Century Business

Senge, P. and Kim, D. H. (2013), 'From Fragmentation to Integration: Building Learning Communities', *Reflections*, 12(4), 3–11

Shanks, R., Robson, D. and Gray, D. (2012), 'New teachers' individual learning dispositions: a Scottish case study', *International Journal of Training and Development*, 16(3), 183-199.

Simmering, M. J., Colquitt, J. A., Noe, R. A. and Porter, C. O. (2003). 'Conscientiousness, autonomy fit, and development: a longitudinal study', *Journal of Applied Psychology*, 88(5), 954.

Smylie, M. A., Miretzky, D. and Konkol, P. (2004), 'Rethinking teacher workforce development: A strategic human resource management perspective', *Yearbook of the National Society for the Study of Education*, 103(1), 34-69.

Steffens, K. (2015), 'Competences, learning theories and MOOCs: recent developments in lifelong learning,' *European Journal of Education*, 50(1), 41-59.

Stéger, C. (2014). Review and Analysis of the EU Teacher-related Policies and Activities. *European Journal of Education*, 49(3), 332-347.

Stoll, L., Harris, A. and Handscomb, G. (2012), 'Great professional development which leads to great pedagogy: nine claims from research', *Nottingham, UK: National College for School Leadership*.

Sugrue, C. (2004), 'Rhetorics and realities of CPD across Europe: From cacophony towards coherence', *International handbook on the continuing professional development of teachers*, 67-93.

Sugrue, C., and Mertkan, S. (2016). Professional responsibility, accountability and performativity among teachers: the leavening influence of CPD?. *Teachers and Teaching*, 1-20.

Symonds, J. E. and Gorard, S. (2010) 'Death of mixed methods? Or the rebirth of research as a craft' *Evaluation & Research in Education*, 23(2), 121-136.

Taris, T. W., Kompier, M. A., De Lange, A. H., Schaufeli, W. B., and Schreurs, P. J. (2003), 'Learning new behaviour patterns: A longitudinal test of Karasek's active learning hypothesis among Dutch teachers', *Work & Stress*, 17(1), 1-20.

Teddlie, C. and Yu, F. (2007), 'Mixed methods sampling a typology with examples', *Journal of mixed methods research*, 1(1), 77-100.

Thomas, J. R., Silverman, S. and Nelson, J. (2015) *Research Methods in Physical Activity*. 7th edn. Illinois: Human Kinetics.

Timperley, H., Wilson, H.B. and Fung, I. (2007), *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration Wellington*, New Zealand: Ministry of Education.

Timperley, H. and Alton-Lee, A. (2008) 'Reframing teacher professional learning: An alternative policy approach to strengthening valued outcomes for diverse learners', in: Kelly, G.; Luke, A.; Green, J. (eds.) *Disciplines, knowledge and pedagogy. Review of Research in Education*, 32, Washington DC: Sage Publications.

Tomlinson, C. A. (2014). *Differentiated classroom: Responding to the needs of all learners* (2nd Ed.). Alexandria, VA: ASCD.

University of Malta (2015) *MATSEC Examinations Board*. Available at: <https://www.um.edu.mt/matsec> (Accessed: 2 February 2016)

Van den Bergh, L., Ros, A., & Beijaard, D. (2015). Teacher learning in the context of a continuing professional development programme: A case study. *Teaching and teacher Education*, 47, 142-150.

Van den Bossche, P., Gijssels, W. H., Segers, M., & Kirschner, P. A. (2006). Social and cognitive factors driving teamwork in collaborative learning environments team learning beliefs and behaviors. *Small group research*, 37(5), 490-521.

Venkatesh, V., Brown, S. A., and Bala, H. (2013), 'Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems', *MIS quarterly*, 37(1), 21-54.

Vescio, V., Ross, D., and Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and teacher education*, 24(1), 80-91.

Waddington, P.A.J. and Bull, R. (2007), 'Cognitive Interviewing as a Research Technique'. *Social Research Update* (50). Available at: <http://sru.soc.surrey.ac.uk/SRU50.html> (Accessed: 21 December 2015)

Watson, C. (2014), 'Effective professional learning communities? The possibilities for teachers as agents of change in schools,' *British educational research journal*, 40(1), 18-29.

Watson, C. and Michael, M.K. (2016), 'Translation of policy and shifting demands of teacher professionalism: from CPD to professional learning', *Journal of Educational Policy*, 31(3), 259 – 274.

Wayne, A. J., K. Yoon, P. S. Cronen and M.S. Garet. (2008), 'Experimenting with teacher professional development: Motives and methods', *Educational Researcher* 37(8):469–47.

Webster-Wright, A. (2006), *Understanding Continuing Professional Learning*, PhD Thesis, School of Education: University of Queensland.

Wenger, E., McDermott, R. and Snyder, W.M. (2002) *Cultivating Communities of Practice*. Boston, MA: Harvard Business School Press.

Wenger-Trayner, E., and Wenger-Trayner, B. (2015), 'Introduction to communities of practice', *A Brief Overview of the Concept and Its Uses*. Web, 18.

Werquin, P. (2012). The missing link to connect education and employment: recognition of non-formal and informal learning outcomes. *Journal of Education and Work*, 25(3), 259-278.

Weston, D. (2015). 'Too much CPD is 'one size fits no-one' – we have to do something about it', *TES*, Available at: <https://www.tes.com/news/school-news/breaking-views/too-much-cpd-%E2%80%99one-size-fits-no-one%E2%80%99-%E2%80%93-we-have-to-do-something-about-it> (Accessed: 3 September 2016)

Whatmore, S.J. (2013) 'Earthly powers and affective environments: An ontological politics of flood risk. *Theory, Culture & Society*, 30(7/8), 33-50.

Wheatley, K.F. (2002), 'The potential benefits of teacher efficacy doubts for educational reform', *Teaching and Teacher Education* (18) 5–22.

Williams, A. (2014), 'How to write and analyse a questionnaire', *Journal of Orthodontics* (30) 3: 245 – 252.

Williams, P. (2013), 'We are all boundary spanners now?' *International Journal of Public Sector Management*, 26(1), 17-32.

Yoon, K. S., Duncan, T., Lee, S. W. Y., Scarloss, B. and Shapley, K. L. (2007), 'Reviewing the Evidence on How Teacher Professional Development Affects Student Achievement. Issues & Answers', *Regional Educational Laboratory Southwest (NJ1)*.

