TEACHERS' PERCEPTIONS AND EXPERIENCES OF CONTINUING PROFESSIONAL DEVELOPMENT (CPD): OPPORTUNITIES AND NEEDS IN HONG KONG PRIMARY SCHOOLS

WAN, WAI YAN
Cert.Ed. (HKIEd), B.Ed. (1st Hons.) (HKU), M.Ed. (HKU)

Thesis submitted to the University of Nottingham for the degree of Doctor of Education (Lifelong Education)

JUNE 2011

DECLARATION

I declare that this thesis is the product of my own work, which has not, whether in the same or
different form, been presented to this or any other university in support of an application of any degree
other than that for which I am now a candidate.

Signed:	
- J	Wan Wai Yan

June 2011

ABSTRACT

The aim of this study was to explore teachers' perceptions of continuing professional development in Hong Kong, focusing on teachers' perceptions of CPD activities and teacher competencies in the Teacher Competencies Framework (TCF) in the latest government CPD policy, "Towards a Learning Profession: The Teacher Competencies Framework and the Continuing Professional Development of Teachers" (hereafter as "CPD Document 2003), as well as their perceptions about facilitating and inhibiting factors affecting CPD. In order to accomplish these purposes, one central research question was created: What are teachers' perceptions of CPD activities and their professional development needs and what factors affect their CPD participation?

The study was conducted in three primary schools in Hong Kong. This study took a multi-methods approach, i.e. quantitative and qualitative research, in which the data were collected through a self-developed survey questionnaire to teachers, as accompanied by focus group interviews and follow-up individual interviews with teachers.

The major findings of the study were:

- Teachers preferred higher academic study most but they slightly preferred production of publications for their CPD.
- Teachers participated in higher academic study most but participated in production of publication the least.

- Teachers perceived higher academic study and peer class observation as the most effective CPD
 activities but publication is still a lowly recognized CPD activity.
- 4. Four CPD domains of teachers' perceived needs were extracted from the Principal Component Analysis (PCA) factor analysis, comprising: School Development, Teaching and Learning, Student Development, and Professional Relationships and Services. Teachers had the highest CPD needs in the 'Student Development' domain.
- Facilitating factors were categorized under eight themes, namely, school factor, personal factor, financial factor, time, CPD provider, family factor, relationship with others and government factor.
- 6. Inhibiting factors were categorized under six themes, namely, time, heavy workload, financial factor, CPD provider, school factor and personal factor.
- 7. Finally, school factor was found as a determinant factor affecting CPD. It was found as the most influential factor affecting teachers' preference, participation and their perceptions of the effectiveness of CPD activities.

The implications of school-based professional development, government policies and future research related to CPD are discussed at the end of the thesis.

ACKNOWLEDGEMENTS

I wish to express my most sincere and special thanks to a number of people, some of whom I can name, others I cannot, but all of them have, during the course of my study, made significant impact on me.

First of all, I wish to thank my supervisors, Professor Pamela Sammons, Professor Christopher Day and Dr. Qing Gu for their stimulating advice and ideas, accompanied by their continuous encouraging support to my study. They are always inspiring, and every supervisory meeting with them helped me to make great leaps forward. They have also helped me to gain a deeper understanding of research methodology and enriched the analysis of the study.

I would especially thank all the school principals and the teachers for participating in my study, giving responses to my questionnaire surveys, and answering my questions in the interviews. I also wish to thank all my friends and colleagues who read and commented on the early drafts of the various chapters.

I would like to give my great thanks to my family for their patience and endurance during these six years of my study. I absolutely adore my parents, who taught me to be excellent in all things and to launch out into the deep. Enormous thanks to my two supportive sisters, Eunice and Sancia, who are

always understanding and helpful to me during the whole period of my study.

Very special thanks to Patrick, my good friend in my life, who always gives me unconditional encouragement, truly sincere sharing and enormous support. I also would like to say great thanks to Lorelei, who helped me do the Chinese writing. Besides, I am very grateful to my other precious friends who emailed, called, invited me to dinner, or let me visit just to get away from my computer – your love and encouraging words helped me to persevere.

PUBLICATIONS

(see Appendix I: Acknowledgement on Joint Publications)

- Law, E.H.F., Galton, M., and Wan, S.W.Y. (2006). Developing teacher curriculum leadership: Hong Kong perspectives. *Asia-Pacific Journal of Teacher Education*, *35(2)*, 143-159.
- Law, E.H.F., and Wan, S.W.Y. (2006). Developing curriculum leadership in a primary school: a Hong Kong case study. *Curriculum and Teaching*, *21*(2), 61-90.
- Wan, S.W.Y. (2007). Hong Kong primary school teachers' perceived needs in continuing professional development. *The International Journal of Interdisciplinary Social Sciences*, *2*(2), 103-111.
- Wan, S.W.Y., and Lam, P.H.C. (2008). A case study of Hong Kong primary teachers' perceptions of continuing professional development (CPD). *Proceedings of the Asia-Pacific Educational Research Association Conference 2008*. National Institute of Education, Singapore.
- Wan, S.W.Y., and Lam, P.H.C. (2010). Factors affecting teachers' participation in continuing professional development: From Hong Kong primary school teachers' perspectives. *Proceedings of the 2010 AERA Annual Meeting "Understanding Complex Ecologies in a Changing World."*Denver, Colorado, USA.
- Law, E.H.F., Wan, S.W.Y., Galton, M., and Lee, J.C.K. (2010). Managing school based curriculum innovations: a Hong Kong case study. *Curriculum Journal*, *21*(3). 313-332.
- Law, E.H.F., Galton, M., and Wan, S.W.Y. (2010). Distributed curriculum leadership in action: a Hong Kong case study. *Educational Management Administration and Leadership*, *38*(3), May, 286-303.

LIST OF CONTENTS

Table of Contents

CONTENTS	PAGE
DECLARATION	ii
ABSTRACT	lii
ACKNOWLEDGEMENTS	V
PUBLICATIONS	vii
LIST OF CONTENTS LIST OF TABLES	viii xiii
LIST OF TABLES LIST OF FIGURES	XV
CHAPTER ONE: INTRODUCTION	1
Introduction	1
Continuing Professional Development (CPD) and Teachers	2
Changing roles of teachers	2
CPD and educational change	3
Teachers' Continuing Professional Development in Hong Kong: The Policy Context	4
1980s: Laissez-faire CPD policy	4
1990s: Transition to systematic CPD planning?	5
2000 and onwards: Towards a more systematic CPD policy	6
Challenges to Primary School Teachers in Hong Kong Educational Context	9
Stress at work	9
Teacher professionalism in Hong Kong	10
The Research Role of the researcher	11 11
Research objectives and questions	11
Significance of the Research	12
Summary	13
CHAPTER TWO: LITERATURE REVIEW	14
Introduction	14
Continuing Professional Development (CPD): Its Meanings and Functions What is meant by CPD?	14 14
What is meant by Cr D: What are the functions of teachers' CPD?	16
CPD and in-service education	18
Approaches to CPD	19
Adult learning: A basis for CPD	19
Traditional approaches versus alternative approaches	21
Alternative approaches to CPD	22
Effective CPD	24
Catering for the needs of teachers and schools / organizations	24
Goal setting and understanding prior knowledge and experiences	26 26
Situated learning and professional learning communities Giving support to teachers	26 29
Teachers' Perceptions and Experiences of CPD: An International	30
Perspective	00

CONTENTS	PAGE
Teachers' perceptions of effective CPD	30
Perceptions of CPD activities	31
Needs of CPD	31
Roles of leadership contributing to successful CPD	33
Tensions and goals towards CPD	35
Hong Kong Teachers' Perceptions and Experiences of CPD	36
Hong Kong teachers' CPD activities: Towards a collaborative model Meeting Hong Kong teachers' CPD needs	36 39
Towards a Learning Profession: Hong Kong Teachers' Views upon the CPD	40
Document 2003	40
From INSET to CPD	40
Chan et al. (2005)'s study	41
ACTEQ Study 2005 (ACTEQ, 2006)	42
ACTEQ Study 2007 (ACTEQ, 2009)	42
Summary	44
CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY	46
Introduction	46
Philosophical Stance: Research Paradigm	46
Ontology and Epistemology	47
Positivist paradigm	47
Interpretive paradigm	49 50
Research Methodology: Quantitative and Qualitative Approaches	50
Combined use of quantitative and qualitative approaches: why? Multi-methods approach	50 51
Research Design	52
Multi-methods sequential design	52
Triangulation	53
Questionnaire survey	54
Focus group interview	57
Individual semi-structured interview	60
Participants	61
Data Collection	64
CPD Questionnaire Survey	64
Focus group interview	64
Individual semi-structured interview	65 65
Data Analysis CPD Questionnaire Survey	65 65
Focus group interview and semi-structured interview	66
Ethical Issues	67
Access	67
Informed consent, confidentiality and trustworthiness	68
Summary	69

CONTENTS	PAGE
CHAPTER FOUR: WHAT ARE TEACHERS' PERCEPTIONS OF CPD? Introduction	70 70
Demographic characteristics in the CPD Questionnaire Survey	70
Meanings of CPD	71
CPD as a ladder to career development	71
CPD as a continuous cycle to update and deepen professional knowledge and skills	72
CPD as a way for collective wisdom	75
Traditional Versus Alternative Approaches to CPD	75
Traditional or alternative?	75
Higher academic study	78
Peer class observation	80
Offshore study visits	80
Publications	82
What are (not) Effective CPD Activities to Teachers?	83
What are effective? What are not? Job-related school works	83 85
	ან 88
Peer learning opportunities Immediate effectiveness on teaching and learning	91
Any relationship between demographic characteristics and teachers' perceptions of CPD activities?	92
Age and teachers' perceptions of CPD activities	92
Years of teaching experience and teachers' perceptions of CPD activities	94
School and teachers' perceptions of CPD activities	96
Summary	96
CHAPTER FIVE: WHAT ARE TEACHERS' CPD NEEDS? Introduction	98 98
Teacher Competencies Framework (TCF): Teachers' Perceptions and the CPD Document 2003 (ACTEQ, 2003)	98
Principal Component Analysis (PCA) of teachers' perceptions of professional development needs with reference to Teacher	98
Competencies Framework (TCF) in the CPD Document 2003	
Comparison between teachers' perceptions and the Teacher Competencies Framework (TCF) in CPD Document 2003 (ACTEQ, 2003)	100
CPD Needs: Which Is Urgent? Which Is Not?	103
Student development	103
Professional relationships and services	107
Teaching and learning	109
School development	113
Summary	114

CONTENTS	PAGE
CHAPTER SIX: FACTORS AFFECTING TEACHERS' PARTICIPATION IN CPD	116
Introduction	116
Factors Affecting Teachers' Participation in CPD: What Matters?	116
What factors facilitate and hinder teachers' participation in CPD?	116
Differences and similarities of the factors affecting teachers'	118
participation in schools	
Workload matters? Time matters? School matters?	119
Personal factor matters?	127
Financial factor	128
CPD provider	128
What else matters? Family? Relationship with others? Anyone else?	130
Summary	132
CHAPTER SEVEN: DISCUSSION	133
Introduction	133
Discussion	133
Discrepancies between the government CPD policy and teachers' perceptions	133
CPD: external or school based?	135
Whose CPD needs? Government? Schools? Teachers?	136
Factors affecting CPD: School? Heavy workload? Time?	137
Other studies related to age and years of teaching experience	140
Teacher collaboration and school as learning community	141
Student development: The core of CPD	144
Higher academic study vs. student learning?	145
Teachers as action researchers: Rhetoric or reality?	145 147
Summary	147
CHAPTER EIGHT: CONCLUSION AND IMPLICATIONS	148
Introduction	148
Key Findings	148
Implications for Policy and Practice	151
For the Government	151
For school principals and school middle managers	153
For CPD coordinators	154 155
For further study Limitations	155 156
Significance of the Study	156
Conclusion: My Personal Insights	156
Constant my r orderial moighte	100
BIBLIOGRAPHY	158

	CONTENTS	PAGE
APPENDICES		183
Appendix I:	Acknowledgements on Joint Publications	183
Appendix II:	An Overview of the Generic Teacher Competencies Framework in the CPD Document 2003 (ACTEQ, 2003)	184
Appendix IIIa:	CPD Questionnaire Survey (English version) 1	
Appendix IIIb:	CPD Questionnaire Survey (Chinese version)	198
Appendix IV:	Focus Group Interview Guide	211
Appendix V:	Individual Semi-structured Interview Guide	214
Appendix VI:	Participant Information (Focus Group Interviews)	217
Appendix VII:	Letter to Principals	221
Appendix VIII:	Participant Consent Form	222
Appendix IX:	Chi-square Test Results of Relationship between	223
	Demographic Characteristics and Teachers' Perceptions of	
	Factors Affecting CPD Participation	

List of Tables

	TABLES	Page
Table 2.1.3:	Summary of differences between CPD and in-service education (adapted from Chan and Lee, 2008)	19
Table 2.2.1:	Carl Rogers's distinction between two kinds of learning (Rogers, 1983, cited in Rogers and Horrocks, 2010:138)	20
Table 2.2.2:	Levels of professional development activities (Rogan and Grayson, 2003)	22
Table 3.3.3a:	CPD activities listed in the CPD Document 2003 (ACTEQ, 2003)	56
Table 3.3.3b:	Teacher Competencies Framework (TCF) in the CPD Document 2003 (ACTEQ, 2003)	59
Table 4.1.1:	Number of respondents in each school	70
Table 4.3.1a:	Overall teachers' preferences of CPD activities (N=87)	77
Table 4.3.1b:	Frequency of teacher participation in CPD activities (N=87)	77
Table 4.3.2a:	Comparison amongst teachers' preferences of CPD activities in three schools	79
Table 4.3.2b:	Comparison amongst teachers' CPD participation in CPD activities in three schools	79
Table 4.4.1a:	Overall teachers' perceived effectiveness of CPD activities (N=87)	84
Table 4.4.1b:	Comparison among teachers' perceptions of effectiveness of CPD activities in the three schools	85
Table 4.5.1a:	Overall mean scores of the indicators of teacher preference, participation and perceived effectiveness of CPD activities by age	93
Table 4.5.1b:	ANOVA on overall mean scores of the indicators of teacher preference, participation and perceived effectiveness by age	93
Table 4.5.2a:	Overall mean scores of the indicators of teacher preference,	94
	participation and perceived effectiveness of CPD activities by years of teaching experience	
Table 4.5.2.b:	ANOVA on overall mean scores of the indicators of teacher	95
	preference, participation and perceived effectiveness by years of teaching experience	
Table 4.5.3a:	Overall mean scores of the indicators of teacher preference,	96
	participation and perceived effectiveness of CPD activities	
	by school	
Table 4.5.3.b:	ANOVA on overall mean scores of the indicators of teacher preference, participation and perceived effectiveness by school	96
Table 5.1.1:	Components retained with Eigenvalues and variance	100
Table 5.1.2:	Rotated component matrix(a): factoring on items for teachers' perceived needs in CPD strands	102
Table 5.2.1:	Overall mean scores of CPD domains of teachers' perceived needs items by schools	106

	TABLES	Page
Table 6.1.1a:	Examples of statements related to facilitating factors affecting teachers' CPD participation in the CPD Questionnaire Survey	117
Table 6.1.1b:	Examples of statements related to inhibiting factors affecting teachers' CPD participation	118
Table 6.1.2a:	Frequency of respondents to perceived factors facilitating CPD	119
Table 6.1.2b:	Frequency of respondents to perceived factors inhibiting CPD	119
Table 6.1.3a:	Frequency of responses to perceived factors facilitating CPD	126
Table 6.1.3b:	Frequency of responses to perceived factors inhibiting CPD	126
Table VI-a:	Gender distribution	217
Table VI-b:	Age distribution	217
Table VI-c:	Respondents' highest academic qualifications	217
Table VI-d:	Overall distribution of teaching experiences	218
	<u> </u>	218
Table VI-e:	Overall distribution of teaching rank	
Table IX-a:	Chi-Square test for testing relationship between gender and	223
T. I. I. IV. I	teachers' perceived facilitating factors affecting CPD	000
Table IX-b:	Chi-Square test for testing relationship between age and	223
	teachers' perceived facilitating factors affecting CPD	
Table IX-c:	Chi-Square test for testing relationship between the highest academic qualifications and teachers' perceived facilitating factors affecting CPD	224
Table IX-d:	Chi-Square test for testing relationship between years of teaching experience and teachers' perceived facilitating factors affecting CPD	224
Table IX-e:	Chi-Square test for testing relationship between teaching rank and teachers' perceived facilitating factors affecting CPD	224
Table IX-f:	Chi-Square test for testing relationship between school and teachers' perceived facilitating factors affecting CPD	225
Table IX-g:	Chi-Square test for testing relationship between gender and teachers' perceived inhibiting factors affecting CPD	225
Table IX-h:	Chi-Square test for testing relationship between age and teachers' perceived inhibiting factors affecting CPD	225
Table IX-i:	Chi-Square test for testing relationship between the highest academic qualifications and teachers' Perceived inhibiting factors affecting CPD	226
Table IX-j:	Chi-Square test for testing relationship between years of teaching experience and teachers' perceived inhibiting factors affecting CPD	226
Table IX-k:	Chi-Square test for testing relationship between teaching rank and teachers' perceived inhibiting factors affecting CPD	226
Table IX-I:	Chi-Square test for testing relationship between school and teachers' perceived inhibiting factors affecting CPD	227

List of Figures

FIGURES		
Figure 3.3.1:	Sequential multi-methods design	53
Figure 5.1.1:	Scree plot from Principal Components Factor Analysis	99
Figure 6.1.1:	Teachers' perceived factors affecting their CPD participation	117

CHAPTER ONE

INTRODUCTION

Introduction

Schools nowadays are facing complex and dynamic changes and challenges (Herrity and Morales, 2004). Continuing Professional Development (CPD) is important to teachers' personal lives and career development. Much emphasis has to be put on the nature of CPD as a 'continuing' process for improvement in the knowledge and skills gained. As an ongoing process of any kind of education, training, learning and support activities engaged in by teachers alone or with others (Bolam, 1993; Day, 1999), CPD enhances their knowledge and skills and enables them to consider their attitudes and approaches to the education of children, and to improve the quality of learning and teaching. In short, CPD focuses on fostering individual competence to enhance practice and facilitate dynamic changes in education (Blandford, 2000).

The focus of this research is primary school teachers' perceptions and experiences of CPD in Hong Kong. It is a study of how teachers perceive continuing professional development (CPD) and view their CPD experiences. The aim of the study is to explore teachers' perceptions and experiences about continuing professional development (CPD).

Understanding teachers' perceptions and views of CPD may be helpful to facilitate and improve CPD processes for teachers. This study identifies teachers' preferences, participation and perceived effectiveness of CPD activities. This study also explores teachers' perceptions about the development of professional competencies as listed in the Teacher Competencies Framework (TCF) that was recommended by the Advisory Committee on Teacher Education and Qualifications (ACTEQ) in the latest CPD document called *Towards a Learning Profession: The Teacher Competencies Framework and the Continuing Professional Development of Teachers* (hereafter CPD Document 2003) in 2003 (see Appendix II: An Overview of the Generic Teacher Competencies Framework) (ACTEQ, 2003). It is focused on researching teachers' perceptions of professional development needs in the four CPD domains, namely, Teaching and Learning, Student Development, School Development and Professional

Relationships and Services. This study further explores what factors affect their participation in CPD activities. It concentrates on the factors that facilitate and inhibit their participation in CPD activities.

This study uses a multi-method approach, i.e. quantitative and qualitative methods, including a self-developed questionnaire survey, two focus group interviews after the survey, as well as follow-up individual interviews with teachers involved in the focus group interviews. The study was conducted in three primary schools in Hong Kong. The questionnaire survey was conducted in April 2006 and data analysis was completed in June 2006. As followed by data analysis of the survey results, two focus group interviews with teachers were conducted in July 2006 and data analysis of the focus group interview data was carried out from August till October 2006. Further data collection was done with the use of individual interviews with teachers who were involved in the two focus group interviews. The individual interviews were carried out in August and September 2010 and data analysis was completed by December 2010.

This chapter introduces an overview of the thesis. First, it states the background and context of the problem. This includes an examination of changing roles of teachers and the need for continuing professional development, an overview of the Hong Kong CPD policy context and the educational context. The research aims and significance of this study are then discussed, followed by a presentation of the main research questions and specific research questions. A brief outline of the thesis is also presented at the end of this chapter.

Continuing Professional Development (CPD) and Teachers

Changing roles of teachers

Facing educational reforms in a more complex world, the roles of teachers have become more diversified and their work does not cover learning and teaching only, instead, they may cover school management, administration, guidance and counseling. Due to greater demands on teachers' requirements, many academics have called for a reform of professional development as a precursor to educational reform (Fullan, 2002; Glickman, 2002; Guskey, 1995, 2002; Hargreaves, 2003; Sparks, 2002; Sparks and Hirsh, 1997). Guskey (1995:1) notes that 'every modern proposal to reform, restructure, or

transform schools emphasizes professional development as a primary vehicle in efforts to bring about needed change'. At the same time, there has been a new paradigm shift of the role of teachers from being followers to leaders. The terms 'teachers as leaders' (Cranton, 2000) or 'teacher leadership' (Frost and Durrant, 2002; Lieberman, 1987) or 'distributed leadership' (Harris and Muijs, 2005) have appeared very often in the recent literature of educational leadership and management which put more emphasis on the empowerment of teachers. Butler *et al.* (2004:435) clarified two major expectations are put onto the teachers, stating that:

'On one hand, teachers are asked to revise practices to match shifts in societal structure, values, or resources, for example, to integrate emerging technologies into classrooms (Rennie, 2001) or to include students with disabilities in neighborhood schools (Vaughn and Schumm, 1995). On the other hand, teachers are expected to realign practices in light of evolving learning theories (e.g. behavioral, constructivist, sociocultural).'

Teachers are often called upon to restructure their professional practices, across community and institutional, formal and informal, and pre-school, school-age, and post-secondary education (e.g. Boudah *et al.*, 2001; Pugach, 1999; Scott and Weeks, 1996; Stein *et al.*, 1999; Wesley and Buysee, 2001). Hence, as CPD becomes more important to support teachers in dealing with the changing world, it is essential to understand teachers' perceptions and needs about their experiences in participating in CPD.

CPD and educational change

As schools have entered into the new millennium, teachers are facing complex and dynamic changes and challenges (Herrity and Morales, 2004). Schools and school leaders are experiencing a growing pressure to deliver high quality education (Clement and Vandenberghe, 2003:123). Teachers are subject to considerable and continuous changes in their lives in the process of educational change or innovation. CPD is regarded as 'an integral part of school development' (Lee and Shiu, 2008:5) and it is widely accepted that CPD and successful educational change or innovation are always intimately linked (Huberman and Miles, 1984; Fullan, 1991, 1993). There thus exists agreement that teachers should be encouraged and supported within the school context to develop professionally in order to deliver quality education (Day, 2000; Villegas-Reimers, 2003). On this point, CPD is regarded as a 'publicly implied, accountable part of every teacher's regular working life' (Day, 1993: 87), as teachers are increasingly

experiencing significant accountability demands to 'deliver' improvements in student learning (Education Queensland, 1997; OFSTED, 1998). Day (1993:87) claims that,

'In a developing and therefore changing society, children and their parents are entitled to teaching which takes account of this. Teachers, too, are entitled to support for their professional development where it relates to system needs—particularly the continued and enhanced quality of education for the student.'

The changes in classroom practices demanded by the educational reforms ultimately rely on teachers (Fullan and Miles, 1992; Spillane, 1999). CPD plays an important role in helping teachers to manage current demands of the on-going and dynamic changes for enhancing the quality of learning and teaching (Fullan, 1995; 2006; Hopkins and Harris, 2000). As 'the core of any innovation is the ongoing and constant process of change' (Curtis and Cheng, 2001:139), such an 'ongoing' change process requires a great deal of learning on the part of teachers, and support and guidance are required for facilitating such learning of teachers (Putman and Borko, 1997; Ball and Cohen, 1999; Wilson and Berne, 1999). This learning of teachers should thus be regarded as ongoing and the importance of CPD should not be understated (Blandford, 2000).

Teachers' Continuing Professional Development in Hong Kong: The Policy Context

1980s: Laissez-faire CPD policy

There have been continuous changes to CPD policy in Hong Kong. There had begun systematic planning in CPD policy in Hong Kong in 1980s and 1990s (Education Department, 1981; Ho and Yip, 2003). Education in Hong Kong has developed rapidly since the 70s in parallel with the economic boom. During this period, the concept of CPD was bounded to in-service training (INSET) courses or one-off seminars or workshops. To support such development, the government invested in initial teacher education and imposed professional training and graduate qualifications as prerequisites for entering the profession (Ng, 2003). Since the 90s, in Hong Kong, to improve teachers' qualifications and expertise, Bachelor of Education programmes for primary teachers, in-service training courses provided by the newly-established Hong Kong Institute of Education and some other universities have been launched.

As CPD policies in Hong Kong become increasingly market-oriented and teachers' work in Hong Kong is monitored by the emerging schooling market, teachers' CPD has been generally regarded as equally important as initial teacher education (Lai and Lo, 2007; Tang and Choi, 2009). There had been high demands for a comprehensive system of CPD since 1982 (Hong Kong Government, 1982; Education Commission 1992, 1997; ACTEQ 1998). The government, however, had not formulated any coherent policy or established any mechanisms to ensure that CPD was provided in a systematic manner and the government adopted a laissez-faire approach to CPD (Ng, 2003). Participation in CPD was voluntary and it is peripheral to teachers while the CPD policy mainly took a deficit approach in which an expert or consultant delivers knowledge and information to teachers who are assumed to be lacking sufficient knowledge and skills and need to get help from outside experts to teach them new ways of teaching students (Little, 1987).

1990s: Transition to systematic CPD planning?

In line with the globalizing education reforms (Day, 2000; Loverder, 2005; Lai and Lo, 2007), the Hong Kong government has put more emphasis on teachers' CPD since the 1990s. The Hong Kong government policy about school administration, *School Management Initiative* (Education and Manpower Branch and Education Department, 1991) began to be concerned about teachers' professional development. This document first announced that schools were encouraged to organize staff development days for teachers and the principal should be concerned with his own professional development and his staff's professional development. There were also no requirements that were imposed on teachers to engage in CPD until 1992 (Ng, 2003). Since then teachers who are to be promoted to senior posts are required to attend refresher or special training. But, in cases where no promotion is involved, certified teachers may choose not to attend any further training. However, the government had not formulated any central policy or prescribed any development plans on how and in what areas teachers should be trained on an ongoing basis throughout their professional lives. In 1997, the other important government educational policy document in Hong Kong, *Education Commission Report No.7 (ECR7)* (Education Commission, 1997:37), affirmed the important role of the school in promoting teachers' CPD, stating that:

'... every school should examine its own needs for teacher development, ranging from 'first-aid' induction-type support for new teachers to longer-term needs such as improving the competence of language teachers, and planning for succession to senior teacher and principal posts; and ... schools should include in the school development plan a training schedule for principals and teachers ...'

However, there was still no structural and systematic planning of CPD for teachers in the 1990s.

2000 and onwards: Towards a more systematic CPD policy

In recent years, the government began to recognize that schools should be given more responsibility for planning and organizing programmes to develop their own teachers in order to meet their own school development needs based on the overall school development and planning and be assessed by systemic evaluations such as the External School Review (see Education Bureau, 2009) for the quality of education (Lai and Lo, 2007). The teachers are accountable for the school development and student learning as they are responsible for providing quality education to the students whose academic standards can be achieved and educational needs can be met (Darling-Hammond, 2004). They are required to more frequently take part in professional development activities such as seminars and workshops (Lai and Lo, 2007). The Hong Kong Curriculum Development Council (CDC) conducted a review of the school curriculum during 1999 and 2000. The review aimed at achieving the aims of education for the 21st Century as stated in the Education Commission Report (ECR) on Learning for Life, Learning through Life -Reform Proposal for the Education System in Hong Kong which was launched in September 2000. The reform initiates new modes of learning and teaching and assessment. The curriculum reform 'Learning to Learn' was then announced (Education Commission, 2000; Curriculum Development Council, 2001). The Hong Kong government have been put higher demands on the shoulders of teachers as professionals. This new curriculum reform called upon developing students as lifelong learners. In 2003, there was a turning point to CPD policy in Hong Kong. The Advisory Committee on Teacher Education and Qualifications (ACTEQ) initiated the Towards a Learning Profession: The Teacher Competencies Framework and the Continuing Professional Development of Teachers (ACTEQ, 2003). The underlying argument of this document is in line with what Fullan (1991:123) defines CPD as 'the cornerstone for meaning, improvement and reform as 'professional development and school development are inextricably linked.' Teachers facing educational reforms are supported by this new CPD

policy in which teachers' knowledge and skills in different domains are more emphasized in the Teacher Competences Framework (TCF) in order to develop teachers' capacities in their teaching context and fulfill the higher requirements in the new government educational reforms.

Instead of being unstructured in nature, the new CPD policy (hereafter CPD Document 2003) (ACTEQ, 2003) is more systematic and a new CPD framework, Teacher Competences Framework (TCF), which is competency-based and structural according to domains and hours, provides a map of generic teacher competencies for both teachers and those facilitators of teachers' learning and development (see Appendix I: An Overview of the Generic Teacher Competencies Framework). As stated by the ACTEQ (2003:24), 'The basic premise of the framework is the personal growth and development of teachers'. This framework includes four domains: 1. Teaching and Learning Domain; 2. Student Development Domain; 3. School Development Domain; and 4. Professional Relationships and Services Domain. Each domain contains four components.

- The Teaching and Learning Domain consists of subject matter knowledge; curriculum and pedagogical content knowledge; teaching strategies and skills, use of language and multimedia; and assessment and evaluation.
- The Student Development Domain contains students' diverse needs in school; rapport with students; pastoral care for students; and students' different learning experiences.
- The School Development Domain is composed of school's vision and mission, culture and ethos; policies, procedures and practices; home-school collaboration; and responsiveness to societal values and changes.
- The Professional Relationships and Services Domain includes collaborative relationships within the school; teachers' professional development; involvement in policies related to education; and education-related community services and voluntary work.

The new CPD policy is underpinned by six core values. They include: 1. belief that all students can learn; 2. love and care for students; 3. respect for diversity; 4. commitment and dedication to the

profession; 5. collaboration, sharing and team spirit; and 6. passion for continuous learning and excellence (ACTEQ, 2003).

Besides, all serving teachers are required to undertake at least 50 hours of structural CPD activities and/or other modes of CPD activities every year in a three-year cycle, starting from 2004. The Education Bureau (formerly Education Manpower Bureau) of the Hong Kong government stated that requirements on the hours spent on CPD activities were flexible according to the schools' discretion. Schools and teachers have autonomy to design and formulate their school-based CPD plan, including what CPD activities to be counted as CPD hours in order to suit the professional development needs of teachers.

Although CPD is increasingly regarded as 'an important means of contributing to the creation of more effective schools and as integral to learning organizations' (O'Brien and MacBeath, 1999:71), the CPD Document 2003 has been subject to public criticisms at the time of the current study (Ming Pao Daily, 31st January 2005). First, this CPD Document 2003 seems to be linked with the popular educational jargons such as lifelong learning, quality education, school effectiveness, school development and improvement. For example, the ACTEQ (2003:1) claims that continuing professional development of teachers is crucial to preparing the citizens as 'lifelong learners' where "[e]very teacher should be a continuous learner in order to advance the quality of our education system and the quality of students' learning." However, the TCF as listed in the CPD Document 2003 seems to be sophisticated and complicated for teachers who have to cope with new curriculum reforms on one hand, and deal with the CPD government policy on the other hand. Second, teachers' autonomy is neglected in the process of formulating and implementing the CPD Document 2003 (Lai, 2005). Lai (2005) argues that teachers' professional development has been increasingly controlled by the bureaucracy as the strategies for professional development are characterized by systemic requirements of teachers' qualification standards, specialist subject knowledge and continuing professional development.

Given this context of changing CPD policy in Hong Kong over the past years, with the introduction of the CPD Document 2003 (ACTEQ, 2003), this study responds to the call for a better understanding

about teachers' views upon the CPD Document 2003 and thus help for better facilitation of the process of professional development planning and enhancement of the effectiveness of the promotion of CPD activities and competencies development to the teachers in a practical sense.

Challenges to Primary School Teachers in Hong Kong Educational Context

Stress at work

It is commonly heard that primary school teachers face tremendous stress due to educational reforms, new educational policies, and public assessment like the Territory-wide System Assessment (TSA) and Hong Kong Attainment Test (HKAT) (Chan, 2002; Legislative Council of Hong Kong Special Administrative Region, 2006; Luk-Fong, 2009; Sum, 2009). The work stress problem of teachers in Hong Kong has again drawn much more attention due to a higher rate of teacher suicides (Lo, 2003). Jin *et al.* (2008) identified that Hong Kong teachers were at a high stress level and there were six distinct teacher stress sources, including students, others, curriculum, non-teaching duties, teaching workload, and recognition. The heavy workload experienced by the Hong Kong teachers that is directly related to the daily teaching routine tends to be the most detrimental to their health conditions (Jin *et al.*, 2008).

Cheng (2009) has given a detailed analysis about Hong Kong's educational reforms in the last decade. In his analysis, high workload and large class size are common problems while the workload of Hong Kong teachers was found to be very high, more than 30 lessons (normally 40 minutes each) each week and the number of students in each ordinary class was often in a range of 35-40. The teachers in Asia generally are greater than those in Europe, North America and Australia (Cheng, 2009). Hong Kong teachers had nearly double teaching load and took care of 20-30 per cent more students than teachers in China and Taipei (Ng and Koa, 2003). Cheng (2009) named this problem of the high workload and large class size as the structural part of the 'bottle-neck'. This hinders the change of learning and teaching for quality education as this problem severely limits Hong Kong teachers' teaching approaches and strategies that tended to be teacher-centred and didactic teaching while lacking time in caring for students' individual differences and learning needs.

Another work stress study by Chan *et al.* (2010) indicated that the stress sources of primary school teachers in Hong Kong were significantly more likely than secondary school teachers originated from pursuing further education, career instability, implementation of Language Proficiency Requirement, getting along and working relationships with colleagues, and salary cut as sources of work stress. This study also showed that teachers of primary schools had significantly higher perceived stress level than those of secondary schools. Facing high stress at work, CPD is hence seemed as an extra burden on the shoulders of primary school teachers and its effectiveness depends on school-based CPD policies and administrative arrangement.

Teacher professionalism in Hong Kong

Professionalism of Hong Kong primary school teachers has been discussed over the past decades (Lai, 2005; Lai and Lo, 2007). Professionalism has three key dimensions: professional knowledge, teacher's responsibility and authority over the development of students and their work and teacher autonomy (Furlong, 2001). Lai and Lo (2007) argue that teacher professionalism in Hong Kong remain problematic. Teachers are deskilled by the intensifying work and subject to challenges in different aspects such as greater emphasis on IT in education, innovative approaches in teaching and learning and accountability for educational quality. Teachers are also subject to the emerging schooling market. So Hong Kong teachers' work is thus a kind of 'confined professionalism' only (Lai and Lo, 2007).

With the release of the CPD Document 2003, 'a high degree of teacher professionalism' seems to be advocated (ACTEQ, 2009:1). However, teachers' choices of CPD activities are often aimed at meeting policy requirements for their job security due to reduction in the class number and cutting the number of primary schools by the government (Chan *et al.*, 2010), rather than personal choices based on one's own preferences. Teachers' motivation to attend professional development appears to be a key factor in change (Smith and Gillespie, 2007). However, it seems that teachers' internal motivation to participate in CPD is comparatively not strong. In turn, the change on teachers' learning or change in mindsets may be limited and hence their effectiveness is uncertain (Smith *et al.*, 2003).

Nevertheless, the CPD Document 2003 is still 'potentially a significant step forward in the professionalization of teaching in Hong Kong' (Morris, 2004:116). This study thus aims at exploring primary school teachers' views of this new CPD policy and understanding their experiences in CPD participation, so as to give further insights for planning a more suitable school-based policy in response to teachers' needs.

The Research

Role of the researcher

Being a curriculum leader and professional development coordinator in a primary school in Hong Kong, I aim to help teachers to develop into lifelong learners and provide them with the essentials of designing and implementing professional development plans. I have strong interest in CPD and this study serves as a great opportunity for me to reflect on my current practice as curriculum coordinator and this study certainly can develop my professional practice in the field of education. In line with the aim, I recognize that identifying perceptions and needs of teachers should not be neglected in the process of enhancing and encouraging CPD. In practical terms, this study thus helped to guide me to understand the teachers' needs and beliefs in their CPD in order to maximize the effectiveness of promoting CPD in the school that I am working in. In other words, this study enables me to understand and plan teacher professional development more strategically and systematically according to the teachers' needs and interests.

Research objectives and questions

At the time of the study, as very few existing research does not explore on teachers' views and experiences in participating in CPD activities that are suggested in the CPD Document 2003 (e.g. Wong, 2006), it is critical that teachers' views and perceptions upon teachers' CPD are investigated and explored. The investigation in this research analyses outlines the perceptions of the primary school teachers of their CPD. To guide the research, the specific research objectives are as follows:

- 1. To identify teachers' preferences of continuing professional development activities;
- 2. To identify teachers' patterns of participation of continuing professional development activities;

- 3. To identify teachers' perceived effectiveness of continuing professional development activities;
- 4. To identify teachers' professional development needs of developing professional competencies that are listed in the Teacher Competences Framework (TCF) in the CPD Document 2003; and
- 5. To investigate factors that facilitate or inhibit continuing professional development among teachers.

In this study, the central research question is: What are teachers' perceptions of CPD activities and their professional development needs and what factors affect their CPD participation?, that is accompanied by the following four sub-questions to guide the study:

- 1. Do teachers' preference, participation and perceived effectiveness vary in different CPD activities?
- 2. What factors influence their perceptions?
- 3. What are teachers' professional development needs?
- 4. What are teachers' perceived factors that facilitate or inhibit teachers' participation in CPD?

Significance of the Research

My interest and motivation to conduct this study are in twofold: First, with the new educational reform and the new teacher professional development framework in the CPD Document 2003 (ACTEQ, 2003), this study aims to contribute to the literature in the field of CPD in primary school in the Hong Kong context. School leaders may take into account these authentic perceptions to increase the possibility of facilitating effective CPD for teachers who are regarded as 'the most significant change agent' (Villegas-Reimers, 2003). As the perceptions of the values of and need for CPD and participation in CPD are often varied among different teachers (Day *et al.*, 2007), these perceptions and needs of CPD may affect the effectiveness of professional development planning (Wheeler, 2001; Chan, 2004; Komba and Nkumbi, 2008). It is noted that CPD will only have a positive impact when it is carefully designed to meet the contextual needs of the teachers involved and contains built-in monitoring and sustainable components through examination their needs and perceptions (Wheeler, 2001). Indeed, CPD cannot take place separately from the reality and its impact relies heavily on the way how it is regarded and used by the school as a whole (Anderson, 2001). Hence, teachers' perceptions and needs should be understood more clearly in the process of professional development planning.

Second, it is anticipated that the findings and analyses from the study will be useful in understanding teachers' views and experiences about CPD activities, exploring the differences existing in teachers' perceived professional development needs in CPD domains, as well as understanding factors that affect teachers' participation in CPD. This study can help further explore the suitability and adequacy of Teacher Competencies Framework (TCF) suggested by the ACTEQ (2003) by examining similar patterns that existed in the CPD domains of perceived professional development needs through the use of factor analyses in the study.

Summary

This study helps to contribute to the literature of the perceptions and needs analysis of teachers' CPD specifically in Hong Kong primary schools. It helps to provide other education practitioners in the field of Hong Kong primary school teachers' CPD with relevant and useful information on the CPD Document 2003 (ACTEQ, 2003). It is also hoped that this study is useful in guiding me as a CPD coordinator to improve the current CPD practice and make further development in the planning and management of CPD in my own school context.

There are eight chapters in this thesis. This chapter and Chapter Two presents the background of the study, the rationales behind CPD and its models as well as its development and empirical studies concerning CPD conducted in Hong Kong and internationally. Chapter Three will be a discussion of the philosophical and theoretical understanding of the study, research design, methods and data collection procedures. Chapter Four to Chapter Six will focus on the presentation of the findings based on the data from the questionnaire, focus group interviews and follow-up individual interviews. Chapter Seven will elucidate and synthesize the key findings of the study with the highlights about the school factor that plays an influential role in affecting teachers' CPD experiences. Chapter Eight will then make a final discussion about the implications about future development in CPD policy and school based CPD planning and development, as well as further areas of research on teachers' CPD.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter explores the concepts and functions about continuing professional development (CPD) and presents the trend of CPD approaches in the changing educational world. Then there will be a review of the important elements of effective CPD. Teachers' perceptions and experiences of CPD are then reviewed from an international perspective. There will also be a review of Hong Kong teachers' perceptions and experiences in CPD as followed by a review of three studies concerning teachers' views upon the CPD Document 2003.

Continuing Professional Development (CPD): Its Meanings and Functions

What is meant by CPD?

The definition of CPD is rather confusing and complicated. There is no unique definition upon teachers' CPD and its definition is varied from different educational traditions and contexts. Taylor (1975) initially identified two aspects of the professional development of teachers, which were: staff development and further professional study. Staff development was regarded as rooted in the needs of the institution. Further professional study referred to being orientated to the needs of individual teachers. However, Day (1999) gives a more useful definition about professional development, stating that:

'professional development consists of all natural learning experiences and those conscious and planned activities which are intended to be of direct or indirect benefit to the individual, group or school and which contribute to the quality of education in the classroom.' (p.4)

Day's definition is more holistic in the way that professional development covers all kinds of learning experiences, both planned and unplanned, from individuals to institutions levels to achieve the core aim of education. Goodall *et al.* (2005:26) further elaborate that:

'The concept [of CPD] is often left ill-defined being in many cases conflated with the related concepts of in-service training and on the job learning. Both are more limited than CPD, as CPD can encompass a wide variety of approaches and teaching and learning styles in a variety of

settings (inside or outside of the workplace). It is distinguishable from the broader concept of lifelong learning, which can include all sorts of learning. It is seen primarily as being related to people's professional identities and roles and the goals of the organization they are working for (Galloway, 2000).'

Interestingly, the term continuing professional development (CPD) is more commonly found in the recent literature after 2000. It has been widely used for ongoing education and training for the professions (Earley and Bubb, 2004). Waters (1998) further explains CPD as 'the development that can occur when teachers are construed first and foremost as people, and is predicted on the premise that people are always much more than the roles they play' (p.30). Similar to Day's definition, teachers' CPD is generally described as a process embracing all activities that enhance professional career growth (Rogan and Grayson, 2003) or as formal and informal experiences throughout the teacher's career (Hargreaves and Fullan, 1992). In fact, the term 'continuing' has been used to highlight the professional development as being ongoing, lifelong oriented in the process of 'ongoing' change process (Curtis and Cheng, 2001). Joyce (1981) emphasizes that the need 'to rebuild the school into a lifelong learning laboratory' is not only for children but also for teachers. Most of the literature claims that the pace of social, economic and technological change is the source of change in which all of the people must now become lifelong learners because initial training for teachers is not sufficient enough for them to deal with a lifetime of practice in times of dynamic change (DfEE, 1998) and teachers as professionals must engage in CPD across different phases of professional lives to fulfill different needs and goals in their careers (Harrison, 2003; Day, et al., 2007; Day and Gu, 2010).

Three principles of professional development can be summarized in the previous literatures. They include: 1. learning is fundamentally situated in the context of authentic experiences (Brown *et al.*, 1989; Lave, 1996). 2. the personal history, beliefs and dispositions of each person brings to the action learning has an influence on professional development (Hoban and Erickson, 2004). 3. the realization that an individual's learning almost always has an important sociocultural aspect and it is necessary to identify and recognize the nature of these social influences on the design of learning environments in professional contexts (Vygotsky, 1986; Lave, 1988; Wertsch, 1991).

What are the functions of teachers' CPD?

Improvement of learning and teaching

Teachers' CPD is generally viewed as a way for the improvement of learning and teaching. Bolam (1993) defines CPD as 'any professional development activities engaged in by teachers which enhance their knowledge and skills and enable them to consider their attitudes and approaches to the education of children, with a view to improve the quality of the teaching and learning process'. Gordon (2004) has similar views about the functions of CPD. He also outlines three core functions of CPD, which are:

- 1. improvement of teaching and learning, in terms of curriculum development, restructuring and instructional development;
- 2. improvement of student assessment; and
- 3. improvement of school-parent collaboration.

In spite of the literature that does 'reveal a number of nuances and slight differences for the different concepts used' in defining CPD (Earley and Bubb, 2004: 4), CPD can have a positive impact on curriculum, pedagogy, as well as teachers' sense of commitment and their relationships with students (Talbert and McLaughlin, 1994, cited in Goodall *et al.*, 2005:24).

Catering for the needs of teachers and schools

CPD serves for personal needs of individual teachers and institutional needs of the school where CPD activities can be content-driven and skills-based. CPD is essential to help teachers acquire and update knowledge and skills to deal with educational change (Anderson, 2001:1) as. CPD activities are provided to teachers for enhancing their knowledge and skills/competencies in the relevant areas by means of support and training (Coetzer, 2001). CPD is also supposed to develop professional attitudes towards education and it is intended to enhance the betterment of the quality of education (Day and Sachs, 2004). CPD activities are planned to give support to teachers by equipping them with suitable knowledge and teaching methodology with reference to the identified needs and context. It is claimed that CPD activities can be successful in obtaining the best results when they are structurally and formally planned and conducted with the enhancement of personal and professional growth by broadening

knowledge, skills and positive attitudes and reflections (Collinson, 2000; Anderson, 2001) and developing personal and professional effectiveness and increasing job satisfaction (Madden and Mitchell, 1993; Gordon, 2004).

Adapting to educational change

In response to globalization, as well as higher accountability demands, there have been changing expectations upon teachers' roles from the public. Higher demands on CPD are due to changing roles of teachers as a result of changing requirements and expectations from the communities. With the rise of knowledge-based economy, there has been a paradigm shift of teachers from being transmitters of knowledge to facilitators of knowledge, from traditional 'followership' to 'leadership' roles in dealing with rapid educational changes (Frost *et al.*, 2000). Much literature claimed that successful implementation of new educational policies, reforms or innovations depends on whether teachers are adequately prepared and equipped by means of initial retraining and if they realize the importance of improving their practice by means of CPD (Coetzer, 2001:89; Earley and Bubb, 2004:3). Certainly CPD is an essential component of successful school level change and development (Hargreaves, 1994; Day, 1999).

Forming learning communities

There is urgent call for ongoing and dynamic CPD of teachers (Fullan, 1995), with a view that the school is regarded as a learning community where professional development and growth of teachers is well associated with school development and improvement. To facilitate the formation of learning communities, teachers are expected to take a wider perspective towards their teaching context and the school community by taking a 'my-school' approach rather than a 'my-class' approach. Stoll and Fink (1996:160) claimed that '[i]f teachers are involved in improving their whole schools, and not just their own classrooms, teacher development in its broadest sense can be seen to take place where teachers become part of a learning community'. The learning community in 'my-school' approach allows teachers in the school organization to constantly evolve and make use of their skills and talents to their greatest benefits (Earley and Bubb, 2004). Teachers are expected 'to learn, to build, to exchange good practice, to

be open to change and new ideas, and to experiment and learn from mistakes' (O'Brien and MacBeath, 1999:71), aiming to bring about effective change in the school (Hopkins *et al.*, 1998).

Informing practice through action learning

Another function of CPD is to keep practice informed by the use of evidence and so look for better learning and teaching methods or improve the academic achievements and so on. CPD allows teachers to be 'researchers' (Stenhouse, 1975) whereas 'it is teachers who, in the end, will change the world of the school by understanding it' (cited in Rudduck, 1988). Teachers learn new knowledge and skills from their working context, and they are expected to participate in the on-the-job activities, for example, leading curriculum change, establishing and participating in professional networks, and have reflection through their actions (Cranston, 2000).

CPD and in-service education

The concept of CPD is always confused with in-service education or training. Both of them carry the meaning of life-long learning. In-service education has a narrower view about career development of individuals. CPD is a broad and extensive concept. It carries a meaning of life-long learning. It covers all kinds of systematic and non-systematic activities that lead to personal and professional growth of individuals. Chan and Lee (2008) thoroughly discussed the differences between CPD and in-service education. Table 2.1.3 summarizes the differences between CPD and in-service education in terms of their nature, mode and aims. It is worthwhile to note that CPD covers a holistic view of development as engaging in CPD activities addresses both personal and organizational needs. CPD 'is more extensive and loose in the sense that it stresses teachers' psychological needs for engaging in active and life-long learning' (Chan and Lee, 2008:74). On this point, Waters (1998:30) elaborates that CPD as 'the development that can occur when teachers are construed first and foremost as people, and is predicted on the premise that people are always much more than the roles they play'. However, in-service education is only limited to job-related development that mainly fulfills organizational needs rather than personal needs and it is 'normally implemented with regard to teachers' job requirements and nature' (Chan and Lee, 2008:74).

Table 2.1.3: Summary of differences between CPD and in-service education (adapted from Chan and Lee, 2008)

	CPD	In-service education
Nature	 More than in-service education or training Broad, loose and extended concept 	 Is synonymous with 'training' More systematic and job-related Narrow concept
Mode	 Any systematic or non-systematic activities related to personal professional development Any activities taking place during a teacher's career life that can promote their job efficiency Any development activities which can directly or indirectly enhance their teaching effectiveness 	Adopt the mode of well-planned, systematic learning which matches teachers' specific needs in the job
Aim	 To develop teachers' knowledge and skills to carry out their duties in the ever-changing environment To enhance teaching effectiveness and efficiency To enable individuals to have the problem-solving, innovative skills to cope with new skills as they arise 	To develop professional knowledge, skills, and attitudes and performances of the teaching staff in schools

Approaches to CPD

Adult learning: a basis for CPD

As CPD is an integral part of adult learning, it is important to understand how adults learn. Adult learning is different from children's learning. There are important principles of adult learning that are also applied to CPD in the same way. There are two kinds of learning: significant experiential learning and traditional conventional learning (Rogers, 1983, cited in Rogers and Horrocks, 2010:138). As illustrated in Table 2.2.1, the major difference is the learner's participation in the process of learning. Rogers and Horrocks (2010:308) define participation as 'active involvement in the learning process', 'control over the teaching-learning process' and 'attendance at teaching-learning programmes'. Adult learning is more effective by means of experiential learning in which adults are active in participation in the learning process. Rogers and Horrocks (2010:147) assert that:

'adult learning may be distinguished from children's learning in terms of the different purposes of the learning and the greater and the different quality of the experience brought to the learning.'

Merriam and Cafarella (1999) concluded that there are four ways in which experience is related to adult learning. They include: (1) Experience used as a resource for learning; (2) Learning through the drive to make sense of experience; (3) Experience used to transform meanings rather than to accumulate new knowledge and skills; and (4) Experience acting as a barrier to learning.

Rogers and Horrocks (2010) also classify learning into two categories, namely, formal learning and informal learning (see Table 2.2.1). With reference to Rogers and Horrocks (2010:308), 'informal learning is active learning, initiated and controlled by the student learner'. Informal learning occurs in a contextualized manner, in which adults engage in purposeful learning which they feel are most appropriate to their intentions, and they choose those processes with which they are most comfortable. However, formal learning is decontextualized and the contents of learning is highly structured and strictly sequenced, planned and externally assisted. Adults learn more effectively through informal learning rather than formal learning and they are more self-directive of their own learning (Rogers and Horrocks, 2010). Hence in planning for CPD, it should be noted that:

'adults are motivated to learn as they develop needs and interests that learning will satisfy. An adult's (protégés) needs and interests are an appropriate starting point for [CPD]...Adult orientation to learning is life or work centred. The appropriate frameworks for organizing [CPD] are life- or work-related situations rather than theoretical subjects ...Experience is the richest resource for adult learning. The approach for [CPD] involves active participation in a planned series of experiences, the reflection of those experiences, and their application to work situations.' (Papa and Papa, 2011:100)

Table 2.2.1: Carl Rogers's distinction between two kinds of learning (Rogers, 1983, cited in Rogers and Horrocks, 2010:138)

Significant experiential learning	Traditional conventional learning
Personal involvement	Prescribed curriculum
Whole person	 Similar for all students
Self-initiated	 Lecturing
Pervasive	 Standardized testing
 Evaluated by learner 	 Instructor-evaluated
Essence is meaning	 Essence is knowing and reproducing

Traditional approaches versus alternative approaches

Due to changing demands on the new roles of teachers in the 21st century, traditional approaches to CPD such as formal courses or one-off seminar are criticized for their shortcomings of being unable to get teachers prepared for the new role of knowledge facilitator rather than knowledge transmitter (e.g. Darling-Hammond, 1998; Lieberman, 1996). Traditional models of professional development, such as one-stop workshops, with a top-down approach to disseminating knowledge, were criticized as being too shallow and surface, too short for achieving any impact on learning and teaching and lack of in-depth learning (Liberman, 1995; Darling-Hammond, 1997; Ferguson, 2006) and of no deeply rooted changes in practice (Englert and Tarrant, 1995; Gersten, 1995; Henry et al., 1999) and of being little sustained use of innovations (Gersten et al., 1997).

Not only that, Palincsar (1999) criticized that expert-driven, top-down workshops are typically designed to convey procedural skills to the teachers who are criticized as 'technicians', unskilled labours and non-professional to teaching. Frost *et al.* (2000) further discussed that most in-service programmes had a low level of impact on professional practice at both classroom and school levels because of lack of relevance of staff development activities to the needs of the participating teachers. 'Traditional professional development usually occurs away from the schools site, separate from classroom contexts and challenges in which teachers are expected to apply what they have learned, and often without the necessary support to facilitate transfer of learning.' (Killion and Harrison, 2006).

On the contrary, the main feature of alternative approaches is that the CPD activities are collaborative and learner-centred in nature. Alternative approaches to CPD emphasize the importance of nurturing learning communities within which teachers try new ideas, reflect on outcomes, and co-construct knowledge about teaching and learning in the context of authentic activity (for example, Borko and Putnam, 1998).

There are many alternatives about CPD activities. However, each type of CPD activity is not compelled to each other, instead, different types of CPD activities can be supplementary to each other (Villegas-Reimers, 2003). Rogan and Grayson (2003) give an overview of the design of professional

development activities in Table 2.2.2. The model assumes that the teacher is sufficiently knowledgeable about the subject matter and has successfully completed a minimum of secondary education or bachelor's degree. This model is based on different levels of participation – individual to collaboration. This also implies a shift from one-size-fits-all mode to school-based mode.

Table 2.2.2: Levels of Professional Development Activities (Rogan and Grayson, 2003)

Level	Design of professional development
1	Information on policy and expected changes are presented to school based personnel. Typical mode is short, one-shot workshop.
2	Examples of 'new' practices as suggested by the policies are presented to school-based personnel, who are given an opportunity to engage in these practices in a simulated situation. Typical mode is a series of short workshops lasting for one year.
3	Professional development is designed by school-based personnel depending on which new practices they wish to implement, and implemented using both inside and outside support. Typical mode consists of both external and school based INSET for two to three years.
4	Communities of practice take full responsibility for their own continued professional growth, and for school governance and curriculum implementation, calling on outside support as appropriate. Typical mode consists of ongoing school-based and directed professional INSET.

Alternative approaches to CPD

Two theoretical perspectives lead the alternative approaches to CPD which support teacher learning more effectively (Kwakman, 2003). These two perspectives include cognitive psychological and professional development perspectives that are briefly discussed as follows.

Cognitive psychological perspective

Student learning and teacher learning are the same from a cognitive psychological perspective (Borko and Putman, 1996; Putnam and Borko, 2000). Teachers are assumed to learn like what students do in which teachers are considered as constructors of knowledge who learn actively in a self-directed way. Such kind of learning occurs when interacting with the learning context and it is strongly affected by prior knowledge of individual learner (Borko and Putnam, 1996). In other words, this kind of learning is

situated and influenced by the interplay of the individual's existing knowledge and the learning environments. Thus, teacher learning takes place when favorable learning environments are provided in which teachers are responsible for their own learning (Bransford *et al.*, 1999) whereas staff developers play an important role in creating favorable learning environments for teacher learning. Sawyer (2001) determines that the focus for professional development activities has shifted from a deficit approach (focusing on context knowledge: use of external expertise) to a technical approach (focusing on teaching practice: school-based with outside help) to continuing professional development (focusing on teacher professionalism and context: collaborative practice). The provision of professional development changed from external expertise to empowerment. The professional development perspective is further discussed as follows.

Professional development perspective

Instead of emphasizing the provision of favourable learning environments for enhancing teacher learning, from professional development perspective, it stresses that teachers have to learn how to teach for understanding where they ought to learn new conceptions of content and pedagogy and take on new roles (McLaughlin, 1997). Hence, the working context is understood to be the best place for teachers to acquire competencies that they need to fulfill their new roles through practice (Hargreaves, 1997; Kwakman, 2003; Retallick, 1999). The working context for teachers can be the daily teaching context, including classrooms, schools, school clusters, and other forms of communities such as partnership with universities, networks, etc. In other words, teacher learning occurs at the workplace in which their learning is situated and closely aligned with teachers' work in classrooms and schools (Sparks and Loucks-Horsley, 1989; Garet, et al., 2001; Huffman et al., 2003), and it can be at individual level and collaboration level (Kwakman, 2003).

Therefore, alternative approaches to CPD have been adopted in response to the dynamic change in the educational world. CPD is no longer solely in form of one-off programmes. Instead, the types of CPD learning activities have been extended to work-based programmes like mentoring (e.g. Aiello and Watson, 2010), cluster groups or learning community network, in which teachers work as groups in learning. This 'new' kind of CPD activities is not restricted to input-based, instead, individualized learning

is less emphasized in the new forms of CPD whilst the focus is more output-based, inquiry-based that requires the participating teachers' reflection-in-action (Schon, 1983) and collaborative knowledge building (Bereiter and Scardamalia, 1993; Fullan, 2001; Scardamania and Bereiter, 2003) in the workplace context, where more emphasis is on collaboration where teachers work together for inquiring educational issues and sorting out those issues. Slavit *et al.* (2009) name this kind of CPD as 'collaborative teacher inquiry (SCTI)', that can cover curricular alignment or content knowledge training, involvement in completing a mandated set of prescribed inquiry steps to measure student progress on an important learning issue.

Effective CPD

Many educators and organizations have endeavored to clarify some characteristics and principles of effective CPD (Clarke, 1994; Loucks-Horsley *et al.*, 1998). Numerous experts have studied what constitutes effective CPD (Shulman, 1987; Sparks, 1997; Sparks and Hirsh, 1997; Garet *et al.*, 2001; Guskey, 2000, 2003). The common characteristics of effective CPD are summarized as follows.

Catering for the needs of teachers and schools/organizations

In the past, CPD was poorly conceptualized as it was not responsive to the concerns of individual participating teachers and there was little relevance to the needs of the participating teachers in their own working context (Fullan, 1991). Effective CPD should be able to address and cater for the specific needs of teachers (Anderson, 2001; Muijs *et al.*, 2004). The concept of need has diverse interpretations. 'Need' appears to be used interchangeably between a gap, an identified problem, and the wants, interest or motivation of an individual or a group of people so as to eliminate a lack (Stufflebeam *et al.*, 1985; Queeney, 1995). Previous studies were done to study teachers' professional development needs of CPD. Needs are defined as 'relative to the life experiences of individuals as defined within the framework of a reference group – the group against which status and performance are measured' while it was hypothesized that 'once a lower level basic need is met, humans move on to other higher order needs such as love from others, self-love, and self-actualization' (Maslow, 1954:4). Reviere *et al.* (1996) claim that one person may experience more complex needs.

Professional development is believed to be a tool for the improvement of the school as well as the professional advancement of individuals (Loucks-Horsley *et al.*, 1998). In other words, professional development encompasses all activities that cater for both the personal needs of teachers and the institutional needs of the whole school (Bell, 1991). Personal needs can be intrinsic or extrinsic. Teachers' personal needs may come from intrinsic drives towards self improvement through attaining new knowledge, skills, attitudes, values, and dispositions (Collinson, 2000; Anderson, 2001). It is crucial for teachers to engage in continuing career long development that meet their own personal and professional need and these needs vary according to circumstances, personal and professional histories and current dispositions. (Goodall *et al.*, 2005:24).

School needs may come from external requirement from the policy and school. It is believed that CPD can help teachers to enhance or strengthen their knowledge and skills in implementing certain change in learning and teaching and raise student achievement (Garet *et al.*, 2001). However, Ferguson (2006:3) reminds us that:

'...professional development focuses on the individual teacher, efforts can be directed toward those in any school who possess the intrinsic motivation for the in-depth and continual learning required for fundamental change in core educational practices. Limited resources can be differentially allocated to maximize both staff and professional development over time without creating a mismatch between motivation available and the size and importance of the learning required for any particular teacher. This kind of careful planning can address the learning needs of both schools and teachers in an integrated way that schools and teachers in an integrated way that minimizes conflict and rewards innovation.'

There should be a balance between personal needs and school needs. At the same time, it is essential to provide appropriate professional development to meet particular professional needs if effective learning is to take place. This 'fit' between the developmental needs of the teacher and the [CPD] activity is critically important in ensuring that there is a positive impact at the school and classroom level'. (Goodall *et al.*, 2005:24). Day (1999) argues that neglecting the concerns of individual teachers on CPD would result in little impact of staff development on students, teachers and their workplace.

Therefore, needs analysis or needs assessment is always used to systematically explore the way should be used for accomplishing learning and find out expectations upon the outcomes of learning (Rouda and Kusy, 1995). In the needs analysis of professional development, teachers should be involved

in the identification of what they need to learn and, when possible, in the development of the learning opportunity and the process to be used (Newmann *et al.*, 2000).

Goal setting and understanding prior knowledge and experiences

Setting clear goals of CPD activities is crucial in designing and conducting an effective CPD activity (Earley and Bubb, 2004). Before any CPD activities, CPD planners should reflect on what they wish to accomplish through those activities. In doing so, they should take prior knowledge of teachers into account in designing the activities (Bredeson, 2003). Prior knowledge is essential to enrich experiences of the participating learners and develop their potentials by further building each other's experiences, skills and knowledge (Scardamalia and Berieter, 2003). The personal history, beliefs and dispositions of each person should also be taken into account when formulating CPD planning (Loucks-Horsley *et al.*, 1998; Hoban and Erickson, 2004).

Situated learning and professional learning communities

CPD is effective only when teacher learning occurs in an authentic way through teachers' active engagement, participation and collaboration (Landt, 2002). This authentic way of learning in practice is called situated learning that is fundamentally situated in the context of the practice leading to the betterment of learning and teaching (Lave, 1996; Lave and Wenger, 1991). Teachers put what they have learnt into practice and new learning through social construction and negotiation of meanings by means of sharing, collegiality and reflection (Lave, 1988, 1996; Brown *et al.*, 1989; Jones *et al.*, 1992; ASCD, 2002). In this learning process, collaboration is significant in shaping effective CPD (Schon, 1983, 1989; Fullan, 1991, 1993; Hargreaves, 1997; Gordon, 2004). Collaboration is the basic of the creation of professional learning communities. Collaboration creates teachers' professional confidence and allow for interactions amongst teachers (Harris, 2002, 2003). There has been a growing consensus that the most effective CPD is focused on teachers' classroom practice and is collaborative in nature. It claims that an increasing body of professional work demonstrates 'the value of moving collegial learning from the margins of professional practice to the heart of it' (e.g. GTC, 2003), in which classroom teachers 'not only as classroom experts in a single school but also as members of the broader education community' (GTC,

2003). As Harris (2002:135) puts it, 'improvements in teaching are most likely to occur where there are opportunities to work together and to learn from each other'. She also identifies gains in terms of teachers' professionalism and wellbeing stating 'collaboration is important because it creates a collective professional confidence that allows teachers to interact more confidently and assertively.

Much research suggests that collaboration is an essential ingredient of teacher development and thus school improvement (Purkey and Smith, 1982; Rosenholtz, 1989; Mortimore et al., 1994; Hopkins, 1996; Day et al., 2007). As Huffman and Kalnin (2003:578) highlight that, 'collaboration is essential for not only reducing the isolation of the profession and for enhancing individual teacher's professional growth, but also for the impact it can have on schools and students.' Little (2001) describes CPD as 'collaboration and community' while collaborative learning was regarded as a highly important and useful form of CPD activity that promotes 'sharing practice' (Day et al., 2007). When teachers share and critically interrogate their practice in an ongoing, reflective, collaborative, inclusive, learning-orientated growth promoting way (Mitchell and Sackney, 2000; Toole and Louis, 2002; Stoll and Louis, 2007), there 'organically' emerges a professional learning community in which teachers mutually learn and support with each other in schools (Anderson, 2001). In the professional learning community, teachers have opportunities to discuss and share with others what has been done or be guided by others to develop and experiment their own teaching ideas, the discussion and sharing of the practice definitely act as an integral part of CPD to teachers. Such kind of sharing and discussion can give feedback to the teachers who have chances to reflect on their practice and further develop their ideas or thinking. It is possibly that the nature of social influences on the design of learning environments in professional contexts plays an important role in sharpening teacher learning in the learning community (Vygotsky, 1986; Lave, 1988, 1996; Loucks-Horsley et al., 1998). CPD thus takes place most effectively in schools with a culture of collaboration fostering pedagogic partnerships, which not only counter professional isolation but also contribute to the enhancement of practice (Hopkins et al., 1998).

Yet 'learning community', on the surface, seems to be formed in which teachers learn from each other through collaborative types of CPD activities such as collaborative teaching, peer class observation and collaborative planning. However, school communities of practice always appear to be limited in the

main to individual teachers (Carney, 2003). Collaboration can be seemed as 'contrived collegiality' when the working relationships are 'not spontaneous, voluntary, development oriented, but it is fixed in time and space (Hargreaves, 1994). On the contrary, in collaborative cultures, working relationships are likely to be spontaneous, voluntary, development oriented, in which teachers exercise discretion often initiating tasks or responding selectively to external demands (Day, 1999). Little (1987) suggests four indicators of a high degree of professional collegiality: teachers talk together about teaching practice; teachers jointly plan and solve problems related to their teaching, teachers learn together and teach one another, teachers observe and discuss each other's practice. Two necessary conditions should be considered: interdependence - teachers must believe that interaction with colleagues is essential to being an effective teacher; and opportunity - the school organization must provide ongoing opportunities and support for collaborative work. These two conditions thus must be clearly presented to teachers to support collaborative work amongst teachers. Taking the above four conditions into account, effective CPD should be able to promote the formation of professional learning communities which not only allow teachers to apply what they have learnt but also encourage teachers to work together and learn from each other with collective inquiry, reflection about current practice at school and classroom levels through mutual agreement and shared repertoires with teachers (Wenger, 1998; McLaughlin and Zarrow, 2001:91, Harris, 2002). At the same time, Vandenberghe (2002) concluded the following conditions that can promote learning in the workplace:

- Opportunities for individuals to work with and learn from others in the workplace
- Collaboration in group work and learning
- Chances to work with and learn from others of similar positions
- Variation, challenge autonomy and choice in work roles and tasks

Giving support to teachers

'Learning to be proficient at something new or finding meaning in a new way of doing things is difficult and sometimes painful' (Guskey, 2002:388). No matter whatever teachers teach or whatever their professional background is, there should be sufficient support to teachers in effective CPD activities. Guskey (2002:388) argues that 'support allows those engaged in the difficult process of implementation to tolerate the anxiety of occasional failures.' Most of the literature claim that peer support, school support or government support are essential to effective CPD (for example, Darling-Hammond and McLaughlin, 1995; Guskey, 2002; Goodall *et al.*, 2005; Timperley, 2008). Sufficient support can be in form of internal and external resources (Jones *et al.*, 1992).

Indeed, school support plays a significant role in successful CPD. A supportive school environment for teachers is important for teachers to build on their strengths and stretch their strengths and potentials (Loucks-Horsley *et al.*, 1998) and gain competence, confidence, commitment and a sense of the joy of teaching (Day, 1999; Anderson, 2001; Day and Sachs, 2004). Schools having a supportive learning culture can be helpful to make successful professional development programmes for their teachers. Similarly, Carre (1993) and Lave (1993) observed that the organizational culture of the school will affect teacher progress. The term 'culture' is well-defined by Day (1999:78) as 'people in the organizational setting, characterized by the ways in which values, beliefs, prejudices and behaviours are played out within the micro-political processes of school life.' Thus schools should pay attention to teachers' lives, their development needs and working conditions (Day, 1999) so as to give adequate support to teachers' CPD.

Interestingly, the above characteristics influencing the effectiveness of CPD are multiple and highly complex (Guskey, 2003). However, teachers' perceived effectiveness upon CPD may be influenced by teachers' professional lives and phases, rather than a simple notion of career experience age groups (Day et al., 2007). It would be of concern to explore any relationship between perceived effectiveness of CPD and demographic factors such as gender, age, years of teaching experiences, teaching ranks and school type. Besides, the effectiveness of professional development is context

specific and over time there is need for an optimal mix of CPD experiences which take into account teachers' life stage and career development and school identified needs (Day, 1991, cited in Goodall *et al.*, 2005). Hence, apart from the above elements of effective CPD in general, it is also worthwhile to explore more about how teachers view upon CPD activities and what favourable factors that teachers encounter in their CPD participation with reference to their real experiences in the local context.

Teachers' Perceptions and Experiences of CPD: An International Perspective

Teachers are supposed to be committed to CPD for student learning. Teachers' CPD is a complex and dynamic process. There are few international research studies about teachers' perceptions and views upon CPD. Studies about teachers' perceptions about characteristics of effective CPD, views upon CPD activities, needs of CPD, and factors affecting CPD participation are illustrated as below.

Teachers' perceptions of effective CPD

Lee (2002) conducted a study in Taiwan to examine the characteristics of effective CPD. In his study, effective staff development is described as follows:

- Treat every colleague as a potentially valuable contributor.
- Teach other teachers.
- Share, discuss, and critique in public forums.
- Turn ownership of learning over to the learners.
- Situate learning in practice and relationships.
- Provide multiple entry points into learning communities.
- Reflect on teaching by reflecting on learning.
- Share leadership.
- Adopt a stance of inquiry.
- Rethink professional identity and link it to the professional community.
 (Lieberman and Wood, 2002)

He examined the features of good practice in CPD, in which 'opportunities for sharing of ideas/strategies and current developments with other teachers' is the most recognized feature of good practice in CPD. The second most recognized feature of good practice in CPD was 'relevant content'; whilst opportunities for 'hands-on', practical experience was ranked the third. The least recognized feature of good practice was 'well planned sessions'. 'Relevant/realistic content' was the most important

factor contributing to effective professional development, whilst the least important factors were 'presenter with recent experience' and 'based on practice.' Besides, he examined factors inhibiting effective professional development. The most commonly cited factor that inhibits effective professional development was 'insufficient resources to implement learning,' whilst the least frequently cited factor was 'school not supportive of CPD.' Teachers recognized CPD is effective when 'it is tailored (for individual teacher); whilst some other less important factors were like 'funding is available', 'conferences/meetings are involved' and 'it is ongoing' respectively. Thus the above findings may imply that suiting teachers' needs and collaborative learning opportunities through sharing should be taken into consideration in planning CPD activities whilst resources support is still a key factor affecting the effectiveness of CPD.

Perceptions of CPD activities

Garet et al. (2001) studied about teachers' perceptions about traditional modes of CPD activities and new models of CPD, including induction (i.e. support for teachers) and ongoing professional development. The examples of new models of CPD include mentoring for beginners and veterans, peer observation and coaching, local study groups and networks for developing teaching within specific subject matter areas, school-university partnerships that sponsor collaborative research, etc. Traditional forms of CPD activities are widely criticized as being ineffective in providing teachers with sufficient time, activities, and content necessary for increasing teacher's knowledge and fostering meaningful changes in their classroom practice. Even though there is a growing interest in new CPD models, this study may overlook the suitability of these models in different school contexts in which each school has its own cultures and administrative practice and different starting points of professional development cultures (Law, 1997; Reeves et al., 2003). Hence it is worthwhile to explore the relationship between teachers' perceptions and experiences of CPD activities in the real school context.

Needs of CPD

Yip (1998) found that Singaporean teachers generally perceived professional development to be important and acknowledged that they owned their individual professional development process. Older teachers reported a stronger sense of importance for professional development. However, the majority of

teachers pointed out there was a lack of systematic needs identification process in the school, which neglected of teachers' personal needs and did not give sufficient guidance for teachers' self-assessment. Furthermore, most teachers felt that there was inadequate teacher participation in the planning of professional development and that priority was not clearly communicated to them. Generally, teachers perceived that resources in terms of time, relief manpower and funding to support professional development were insufficient. Teachers also reported that the lack of time, poor timing of professional development programs and lack of relevant programs were the significant barriers to their professional development.

Robinett (2001) found specifically that business education teachers were most interested in technology-driven subject matter, technology integration into classroom learning, and general economic awareness and career awareness of international and technological occupations. In addition, all areas of methodology, professional competencies and content area competencies, should be integrated into professional development activities to prepare teachers to effectively disseminate the content to ensure student learning. This study concluded that professional development activities should be relevant to teachers' needs and they are based on classroom practice.

Nisbet (2004) conducted a survey study in 2003 to assess the professional development needs and preferences primary teachers across Queensland in Australia in relation to the teaching and learning of Mathematics. The study showed that the teachers were keen to be engaged in professional development and the preferred topics for professional developments (for example, using technology in Mathematics learning) were fairly uniform across teachers. The teachers mostly preferred classroom-based topics for professional development and preferred professional development to be held in their own schools. It also indicated that most of the teachers preferred professional development to be held during school time.

Moore and Shaw (2000) interviewed 45 ninth-grade teachers in four secondary schools in Ontario, Canada. The findings indicated that teachers valued professional development that was directly relevant to their practice and tended to look for experts outside their workplace to fill their professional

development needs but were always disappointed with the results. Teachers tended to believe in the transmission model of professional development. Teachers did not perceive themselves as experts and they were not willing to inquire and develop their practical knowledge through action study or action research in their schools and classrooms. This study suggested that there was a need for developing an inquiry based model of professional development for teachers' professional learning.

Yip (1998) brought out the significance of identifying teachers' professional development needs through teacher participation in the planning of CPD activities and identified the problems that teachers encountered in professional development processes. Both Robinett (2001) and Nisbet (2004) focused on teachers' professional development needs in specific subjects, that is, business education and Mathematics. Their studies indicated that teachers preferred classroom-based professional development. Moore and Shaw (2000)'s study reflect that the current professional development is rooted in the teachers' belief of the transmission model which is not effective and inadequate to meet teachers' professional development needs. Therefore, classroom-based practice can be an entry point for teachers' CPD using an alternative approach that allows teachers to inquire, share and reflect on their practice in schools and classrooms. Hence, although all of the above studies were not conducted in the Hong Kong context, they bring out an important idea that studying teachers' professional development needs and perceived factors affecting their participation in CPD is a useful way to formulate an appropriate CPD planning in relation to the school context where teachers are working in.

Roles of leadership contributing to successful CPD

Clement and Vandenberghe (2001) explored how school leaders promoted teachers' professional development in the school context. On the basis of qualitative research, they focused on studying how school leaders can influence teachers' professional development positively through the creation of workplace conditions. Their study were conducted by the use of qualitative methods, including interviews, observation, documents, and research diaries. They discussed how the school leader and the teachers interacted with each other in the processes of teacher professional development. In their study, a group of teachers expressed that they were not impressed by the contribution of their school to their professional

development as their working conditions did not support their professional development whilst collegial interactions were limited to social small talk and they felt that their school leader did not trust them. In contrast, a second group of teachers commented that they felt supported in their professional development because the school leader could sustain the culture of openness and trust, whereas they could offer new ideas and they felt stimulated by their colleagues. A third group of teachers agreed that their school stimulated and orientated their professional development, whereas they felt challenged by their colleagues, however, at the same time, they felt their colleagues could offer help when encountering difficulties, and teaching methods and problems were discussed frequently. Hence, one important conclusion was drawn in their study: collegiality is considered extremely important for teachers' professional development through providing teachers with learning opportunities and learning space, at the same time, school leaders can and should play a role in creating a supportive working context that encourages teacher professional development.

Besides, Ritchie (2002) further explored the factors contributing to the success of an effective professional cycle for teachers. The study involved different stakeholders, including teachers, senior managers, Local Education Authority advisers and governors. The factors that had an impact on the success of professional development cycles include:

Process factors:

- 1. The purpose, process and structure of the professional development cycles were carefully thought though and thoroughly discussed.
- 2. The cycles were systematic and structured.
- 3. The process was regarded by teachers as manageable.

Roles of head teacher and deputy head teacher:

- 1. The deputy head teacher and head teacher had adequate and appropriate professional and interpersonal skills.
- 2. The deputy head teacher and head teacher had colleagues' respect and trust.
- 3. The head teacher had a vision about the school's direction and creating a positive ethos of the school.

Ethos of the school:

1. The creation of a positive school ethos supported individuals within a collaborative culture and allowed them to build on strengths.

In sum, the success of teachers' CPD relies on several factors related to school leadership that constitute favourable conditions for the implementation of CPD. Newmann *et al.* (2000) asserted that professional learning must take place in context and be shaped by the people involved if it is valuable and meaningful. Therefore, it is important to explore the current status of teachers' perceptions about the factors affecting their participation in CPD in schools with reference to the local context.

Tensions and goals towards CPD

Cooper *et al.* (2003) investigated reasons for tensions among stakeholders in promoting CPD, including Ontario's ministries of education, teacher associations, local school districts, and university teacher education programmes regarding the meaning and implications of professional development. In their study, different stakeholders held different views and interpretations upon CPD. However, it is noted that all stakeholders in the study had a common goal – student learning. Cooper *et al.* (2003) remind us that effective professional development must start from the point of commonality, with stakeholders working together toward the shared moral purpose of enhancing student learning.

Overall speaking, the above studies reveal that the process of promoting and enhancing continuing professional development is complex and dynamic. Although CPD is always claimed to be significant to educational reform, the implementation is frequently less effective. It is commonly argued that '[CPD activities are] usually implemented in ways that violate key conditions for teacher learning' (Newmann *et al.*, 2000:259) and its success depends on different stakeholders, i.e. teachers, senior managers, deputy head teacher and head teachers. However, teachers' engagement in the process of formulating CPD planning is always relatively rare (Walker and Cheong, 1996; Dadds, 1997). Instead, teachers' voices and needs should be heard and enquired and their experiences should be shared and reflected as the core value of CPD is for the moral purpose – 'the nurturing of inner wisdom and critical judgement about what can be provided for each child in each situation' (Dadds, 1997:33). Hence it is one of the aims of this study to understand how teachers view about CPD practice and what can be further facilitated for the effectiveness of CPD.

Hong Kong Teachers' Perceptions and Experiences of CPD

Hong Kong teachers' CPD activities: towards a collaborative model

Since the Hong Kong education reform "Learning to Learn" in 2000, there are a few studies about different kinds of collaborative CPD activities in Hong Kong classrooms and in certain subjects. These collaborative CPD activities include coaching (Lam *et al.*, 2002; Li and Chan, 2007), mentoring (Lopez-Real and Kwan, 2005), lesson study (Pang, 2006; Lee, 2008) and collaborative teaching (Carless, 2006).

Lam et al. (2002) studied about the use of coaching in a collaborative partnership project between a local university and two local schools, one primary and one secondary respectively. This study used a range of data collection methods, including comments and feedback during meetings, a pre-and post-survey about teachers' perceptions of classroom observation activity, semi-structured interviews with teachers and observation. The finding showed that teachers generally accepted coaching and found it helpful to their professional development. However, during the process of coaching, they encountered some difficulties, including time constraints, psychological pressure and the possibility of contrived collegiality and implementation partnership. It is noted that there exists 'a propensity of school personnel to rely on suggestions and advice from external experts' (Lam et al., 2002:192) and 'without the right culture, the practice of peer coaching will not generate genuine collaboration' (Lam et al., 2002:193). Seemingly, the concept about coaching is still developing in teachers' mindsets and its practice should be based on the school-based context.

Li and Chan (2007) also studied about the process of using coaching in an 18-month partnership project between a group of English teachers of a primary school and two consultants of a local tertiary education institution in Hong Kong. It was found that there were obvious changes in teachers' instructional practice in English language teaching. More importantly, this study identified seven factors for creating a positive coaching environment with reference to the local Hong Kong context. They include: (1) giving free hands to coaches and teachers to construct the coaching model; (2) constant adjustment of expectations and roles between coaches and teachers; (3) setting common tasks to nurture trust and collegial relationships; (4) combination of different professional development activities; (5) providing non-

judgemental feedback; (6) starting small; and (7) constant reflection of professional growth and setting new achievement targets.

Lopez-Real and Kwan (2005) used an open-response questionnaire and follow-up interviews to explore mentoring teachers' perceptions of mentoring in a school-university partnership scheme. The survey data showed that 70% secondary teachers expressed the mentoring process were beneficial to them and they gained the benefits in the mentoring process in terms of professional development, including learning through self-reflection, learning from student teachers, learning through mutual collaboration and learning from university tutors. Learning through self-reflection is the most significant benefit to teachers.

Pang (2006) studied the impact of learning study on Hong Kong secondary Economics teachers. He used learning study to replace the name of lesson study. The nature of learning study is similar. Both learning study and lesson study engage teachers in learning by investigating classroom practices by observation and reflection. His study found that teachers could have professional learning after participating in the learning study as teachers could share their professional knowledge and form a 'collective consciousness' professional learning community through observation, evaluation and reflection upon the object of learning together. The teachers were found that their focus from the teacher more towards the learner, from teaching towards student learning, from knowledge and /or skills towards a way of understanding the phenomenon, and from the school context towards multiple contexts.

Lee (2008) explored the professional learning process of a group of secondary English teachers in a lesson study project. This study used teachers' written feedback and discussion at meetings for data collection. This study found that teachers could have gains in the lesson study process. They could work collaboratively. They could also think carefully about the object of learning and make further improvement of the design of the lessons. Apart from that, teachers could see learning from students' perspectives and have their own self-reflection. However, this study also indicated that peer observation during the lesson study created pressures and heavy workload on teachers as it was hard for teachers to find spare time for lesson planning and observations.

Chan (2003) used an interpretive case study approach with the application of a survey, semistructured interview, documentary analysis and participant observation to investigate the professional development of teachers and their perceived problems in the implementation of collaborative teaching in a secondary school. It was found that perceived professional growth occurred mainly in modifying the teaching strategies and subject knowledge of teachers. However, inadequate time is the major perceived problem.

Carless (2006) also studied about collaborative teaching. His focus is on the impact of an innovative programme of collaborative English as foreign language teaching between native English speaking teachers and local English teachers in Hong Kong primary schools. He used an open-ended questionnaire survey, email and interviews, and classroom observation for data collection. In his finding, there was perceived positive impact on students and teachers perceived collaborative teaching enabled them to get more ideas about teaching pedagogies and materials. Despite that, collaborative teaching may be a challenge to local teachers. Collaborative teaching can be a burden to local teachers as it takes more time for planning the lessons before team teaching. Carless (2006:335) concluded that 'the success of team-teaching ...rests on the interpersonal skills of partners; willingness to compromise and positive attitudes towards collaboration are important attributes of participants.'

Although the number of studies about CPD activities in Hong Kong is limited and some of the above studies are subject-based and bounded to a group of teachers in certain projects, it obviously indicates the trend towards CPD activities put more emphasis on collaboration and those activities are more school-based, situated and work-based rather than one-off workshops or seminars. The kind of collaborative CPD activities include within-school level and school-university level. CPD activities provide positive results on teachers. Collaboration is an important element to implement CPD activities successfully. Through the collaborative CPD activities such as coaching, mentoring and lesson study, teachers could gain during the process of sharing and reflection together. However, it is obvious that time and heavy workloads are major constraints towards teachers' participation in CPD activities.

Therefore, as most of the above studies were conducted in secondary school context, it is worthwhile to conduct this study to understand more about primary teachers' views and experiences in CPD and explore the factors affecting their participation in CPD activities.

Meeting Hong Kong teachers' CPD needs

There have been very few studies about Hong Kong teachers' CPD needs. Most of them are mostly initiated by tertiary institutions to design courses or modules. Cheung (2004) undertook a survey to explore the secondary business teachers' need for Master's degree. The results indicated that there is a strong need for Master's degree. Kong (2007) used a survey, focus group interviews and in-depth interviews with primary and secondary teachers to explore professional development needs for proposing an information literacy training programme. The results show that both content and teaching skills are important to the implementation of professional development. Three key issues in developing professional development programmes were raised. They include: (1) adequate professional development for building the capacity of learners in the implementation of information literacy; (2) obtaining consensus and support from school principals and teachers on the implementation of information literacy; and (3) allowing flexibility for teachers to organize their own professional development programmes.

However, unlike the previous studies, taking a more general view upon CPD activities, Mak (2010) investigated primary and secondary English teachers' experiences of CPD by using a survey and observation. The findings showed that teachers preferred those CPD activities which require relatively short engagement time and could bring immediate and direct benefits to their teaching work while they were not keen on action research. It is likely that teachers' knowledge of ICT might affect their needs for CPD in this domain and hence it limits the choice of CPD activities through online participation.

Therefore, it is concluded that understanding Hong Kong teachers' CPD needs is not yet thorough. Most of the studies were from university perspective attempting to offer provide CPD programmes based on needs analysis. And they are mostly limited to certain subject teachers' CPD needs. And here it is worthwhile to bear in mind that: 'Sadly, teachers' voices are often silent in this process of professional development and consequently there is a danger that they might ignore, modify,

abuse, misinterpret or distort the intention of educational policy changes as a result' (Towndrow *et al.*, 2010:119). There is thus an urgent need for further exploration of teachers' CPD needs for providing CPD activities effectively from teachers' perspectives.

Towards a Learning Profession: Hong Kong Teachers' View upon CPD Document 2003 (ACTEQ, 2003)

From INSET to CPD

In Hong Kong, the concept "CPD" was not used in the past century while it is limited to refer to inservice education and training (INSET) of teachers. The Hong Kong government has given quite substantial support to primary school teachers since 1981. The Government has given quite substantial support to primary school teachers since 1981. Every teacher is entitled to have eight weeks retraining twice during their teaching career. The first training can be taken place five to ten years after initial training and the next one will be taken about ten years later (Education Department 1981). Approximately 1% of education expenditure was spent on INSET. However, teachers do not have a strong sense of ownership of the INSET activities as they are mostly top-down (Ho and Yip, 2003).

Facing new challenges in the new era, INSET of teachers has been rapidly recognized as a significant tool to help schools to deal with educational changes. Currently, Hong Kong teachers have opportunities to apply for paid study leave or no-pay leave according to the official approval of their school boards and the Education Bureau when the leave is longer than two weeks. Nevertheless, there was only a very minimal possibility of getting approval before 2000. Under the school-based management system in the new century, more leave-approvals are still not yet known (Ho and Yip, 2003). With the new establishment of CPD policy, *Towards a Learning Profession: The Teacher Competencies Framework and the Continuing Professional Development of Teachers,* lifelong and developmental concepts of teacher education is encouraged and realized.

However, very few studies were conducted in relation to Hong Kong teachers' perceptions and experiences of Hong Kong government's CPD Document 2003. These studies were conducted by Chan et al. (2005) and two organizations, namely, Hong Kong Primary Education Research Association

(HKPERA) and Education Commission (EC), and Policy 21 Ltd., the University of Hong Kong, which were commissioned to conduct the evaluative research study about the CPD Document 2003 in 2005 and 2007 respectively.

Chan et al. (2005)'s study

Chan et al. (2005) studied about school principals' and teachers' views on teachers' involvement in CPD activities. The study by Chan et al. (2005) showed that different schools have a different pace of implementing a school-based CPD policy. Some are at a more advanced stage and a school-based sharing culture has already been established. This finding indicates that CPD activities have been 'stimulated and supported' at different schools which are allowed to have flexibility in CPD development with different backgrounds (Chan and Lee, 2008:87). The 'school-based' nature seemed to be synchronized with the policy-makers' emphasis that the needs of teachers in CPD vary 'from person to person, and from school to school' (ACTEQ, 2003:6). Chan et al. (2005) also found that different schools have their own system for supporting their teachers' CPD.

According to Chan *et al.* (2005), teachers generally agreed that teachers' CPD could be promoted at the individual level, school level and district level. Teachers were motivated to participate in CPD activities that are mainly related to their individual professional capabilities and career advancement. The findings also showed that teachers participated in different CPD activities not only because of fulfilling the requirement of CPD hours as proposed in the policy but also their own professional needs and interests (Chan *et al.*, 2005). On this point, Chan and Lee (2008:87) conclude that Hong Kong teachers' involvement in their CPD activities is initiated mainly by intrinsic needs rather than by policy. District support is effective in providing resources, but more efforts should be made for cultivating a sharing culture in the profession among different schools.

Referring to the Teacher Competencies Framework (TCF) in the CPD Document 2003 (ACTEQ, 2003), teachers' CPD activities are classified into four core domains: school development, teaching and learning, student development and professional relationships and services (For details, please refer to Appendix I). In Chan *et al.* (2005)'s study, it was found that they generally spent most of the CPD hours

on the domains of 'teaching and learning' and 'student development' although they were allowed to engage in the CPD activities they preferred. Teachers generally could fulfill the requirement of not less than 150 hours in a three-year cycle. However, the issue about quality should be considered by teachers when choosing CPD activities (Chan *et al.*, 2005).

ACTEQ Study 2005 (ACTEQ, 2006)

The Hong Kong Primary Education Research Association (HKPERA) and Education Commission (EC), as commissioned by ACTEQ, studied about the current state and progress of teachers' CPD. This study was named as 'ACTEQ Study 2005' (ACTEQ, 2006). In this study, teachers with different years of teaching experience tended to participate in different kinds of CPD activities (ACTEQ, 2006). Teachers with 10 or less years of teaching experience and teachers with 21 or more years were significantly more active than other teachers. Teachers with less teaching experience tended to participate more in medium/long structured courses and in school-based exchanges of teaching experience. Those with 21 or more years of teaching experience tended to participate more in seminars and sharing activities with specific themes, as well as activities for upgrading individual personal qualities. In studying if there were any differences in the perceptions of CPD activities and years of teaching experience and teachers' positional ranks, it was found that basic rank teachers found medium/long structured courses and school-based exchanges of teaching experiences to be more effective, and senior teachers perceived that seminars and sharing activities were more effective (ACTEQ, 2006).

ACTEQ Study 2007 (ACTEQ, 2009)

Another evaluative research study commissioned by ACTEQ is called "ACTEQ Study 2007" which was conducted by Policy 21 Ltd., the University of Hong Kong, which was commissioned to continue a further research study about five aspects: the progress on teachers' CPD, teachers' attitudes to CPD, schools' support for teachers' CPD, the perceived benefits of CPD and contributing factors and conditions (ACTEQ, 2009). Teachers had positive attitudes towards CPD. The level of agree amongst principals and teachers on the need for teachers' CPD to cover all the four domains of the TCF was very high.

On the one hand, there existed some factors hindering teachers' participation in CPD. The main factors included time, whether the schedules of CPD activities matched their work schedules, whether the CPD activities could enhance their personal development prospects and whether they could obtain financial and resource support (ACTEQ, 2009). On the other hand, the perceived benefits of teachers' CPD included helpfulness of 'structured learning' and 'other CPD modes'. Teachers saw the most important objectives to be in the 'Teaching and Learning' and 'Student Development' domains. The finding explored that in general teachers who had undertaken a large number of CPD hours got a greater sense of job satisfaction and autonomy.

In this study, contributing factors and conditions for teachers' participation in CPD were explored through interviews with a sample of awardees of the Chief Executives' Award for Teaching Excellence (ACTEQ, 2009). The most important driving force for CPD is teachers' passion for and commitment to teaching. The other important contributing factors include: trust and support from the school management, especially the principals, an open and collaborative atmosphere in schools, respect for and sensitivity to teachers' diversity, schools' support for appropriate arrangements in terms of teachers' workload, facilities and time, and the provision of opportunities for observations, collaboration, innovation and feedback.

Both of the above commissioned evaluative research studies made a list of recommendations for different stakeholders (i.e. principals, school middle managers, teachers) to improve the current status of implementation of CPD Document 2003. These recommendations are mainly concerned with the time issue (i.e. fulfillment of CPD hours should be under professional discretion) and the quality issue (i.e. evaluating CPD activities for assuring effectiveness of CPD to teachers).

To conclude, teachers' perception towards the CPD Document 2003 is positive. But the results of the above studies may be applied to a certain group of teachers, for example, in ACTEQ Study 2007 the interviews were conducted to the teachers who took awards from the government so their views may be tended to be positive towards CPD. Their motives to CPD may be higher than teachers in general. It should be further noted that with reference to the CPD Document 2003, different schools' CPD policy is school-based and its implementation is varied from different school contexts and teachers may have

different views and needs upon CPD. It is recommended by ACTEQ (2006, 2009) that there should be a wider use of the TCF in planning school-based staff development work. When formulating school-based CPD policy, it is worthwhile to have a more detailed study about the current status of CPD progress based on CPD activities and TCF with reference to teachers' preference, participation, perceived effectiveness and their professional development needs of teacher competencies.

Summary

In summary, there is no unique definition to CPD. There is confusion between CPD and in-service education. CPD is a broad and extensive concept. It carries a meaning of life-long learning. A number of key definitions and functions of teachers' CPD have been identified. CPD is generally referred to all kinds of planned and unplanned learning experiences, from individuals to institutions levels to contribute to the improvement of the quality of learning and teaching to achieve the core aim of education. The functions of CPD include improvement of teaching and learning, catering for the needs of teachers and schools, adapting to educational change, forming learning communities, and informing practice through action learning.

This Chapter also reviewed the changes in approaches to CPD due to changing demands on the new roles of teachers in the 21st Century. Traditional approaches to CPD such as formal courses or one-off seminars are comparatively unpopular while alternative approaches like sharing, lesson observation, which are more collaborative and interactive in nature, become more popular.

The Chapter also illustrated the characteristics of effective CPD. In particular, there has been put more emphasis on the identification of teachers' needs, understanding prior knowledge and experience, peer learning opportunities, and giving support to teachers.

The review of international studies about CPD and local Hong Kong studies about CPD raised some important concerns about the promotion of CPD. They include: catering for teachers' needs, leadership, administrative and resources support, cultures of the school, and quantity and quality of CPD. The promotion of CPD is thus a complex, dynamic and on-site process. In order to promote CPD successfully, teachers' voices should be heard to well address their needs.

Although the studies in Hong Kong showed that teachers' perceptions towards the CPD Document 2003 is positive, teachers' perceptions and needs may be contextualized and varied from different schools as the CPD policy is school-based in nature. It is still worthwhile to further explore teachers' perceptions and experiences in different school contexts. Moreover, some areas like teachers' confidence about teacher competencies as listed in TCF in the CPD Document 2003 and satisfaction about CPD activities are not explored yet. So it is the aim of the current study to explore teachers' perceptions and experiences in CPD participation so as to enrich the local literature on perceptions and needs of CPD with reference to primary teachers in the local context.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Introduction

This chapter describes the research methods and processes used and explored in this study. The discussion is focused mainly on the philosophical and theoretical underpinnings of the use of a combination of quantitative and qualitative approaches, as followed by the description of research design and methods applied in the study.

Based on Crotty's (1998) classification, a conceptual framework is used to identify methodology process and structure of this study. This involved the appropriate choice of epistemology/ontology, leading to a suitable theoretical perspective, then to the methodology and data sources, and finally to the analytical methods and techniques. This process is important to answer the research questions of the study.

The choice of epistemology/ontology and the philosophical stance informed the interpretive inquiry perspective employed in this study. The pragmatic inquiry lies behind the use of multi-methods methodology used is discussed. The research design and research methods are then discussed, as followed by a discussion of ethical considerations.

Philosophical Stance: Research Paradigm

The purpose of the study aims to explore the teachers' perceptions and experiences in continuing professional development (CPD) in the three primary schools in Hong Kong. The central research question of this study is: What are teachers' perceptions of CPD activities and their professional development needs and what factors affect their CPD participation? It is essential to explore the most suitable research methods for this study. The philosophical stance, as well as the ontological and epistemological perspectives (Lincoln and Guba, 1985), are important to the selection of research methodology. In fact, it is necessarily required to question the guiding principles or research paradigms of a study. As emphasized by Guba and Lincoln (1994:105), 'questions of method are secondary to

questions of paradigms.' These very important issues have to be sorted out and digested before the start of the research. In the literature, it is noted that understanding research paradigms guides us to be reflective in what, how and why we do the research. Thus the following will be a presentation of the research paradigms as followed by a discussion of research approaches and methods for guiding this study.

Two dominant research paradigms, positivist and interpretive paradigms, exist in the field of social sciences (Cohen and Manion, 1994). The philosophical underpinnings, as well as the features, assumptions and criticisms of these two paradigms will be first discussed in this section in order to provide a better understanding about the choice of the research approach and methods in this study as followed by a discussion of the research design.

Ontology and epistemology

Positivist and interpretivist hold different conceptions about social reality. There are two conceptions of social reality: ontology and epistemology. There is a need for clarification of the terms of 'ontology' and 'epistemology'. Ontology concerns about 'the very nature or essence of the social phenomena being investigated' (raising a question about the natural world) (Cohen *et al.*, 2000:5). Epistemology concerns about 'the very bases of knowledge – its nature and forms, how it can be acquired, and how communicated to other human beings' (an answer about ideas about the natural world) (Cohen *et al.*, 2000:6) and 'providing philosophical grounding for deciding what kinds of knowledge are possible and how we can ensure that they are both adequate and legitimate' (Maynard, 1994:10).

Positivist paradigm

Paradigms are models, perspectives or conceptual frameworks for guiding the organization of thoughts, beliefs, views and practices into a logical whole and eventually inform research design (Basit, 2010:14). There are two dominant research paradigms in educational research: the positivist paradigm and the interpretive paradigm.

The positivist paradigm, also known as normative paradigm, takes a more traditional view of educational research. It is similar to natural sciences, holding the view that truth can only seen to be discovered by observing, experimenting on, or interrogating a large number of subjects, resulting in findings that can be statistically analysed, and are therefore believed to be generalizable' (Basit, 2010:14). Lincoln and Guba (1985) argue that positivism can be defined as a philosophy characterized by a positive evaluation of science and the scientific method. That means, the method of study is expected to be more scientific and objective to formulate a hypothesis to test its validity in the real world (Lincoln and Guba, 1985; Anderson, 2000). The approach is inherently quantitative with the emphasis on the measurement of behaviour, prediction of future measurements and patterns and explanation of a reality predicated. (Lincoln and Guba, 1985; Maykut and Morehouse, 1994; Anderson, 2000). However, with the assumption that methods of natural science could be applied to social sciences (Lincoln and Guba, 1985), the positivist paradigm has been criticized for being unable to observe something in human behaviours, for example, intentions and feelings (Anderson, 2000). On this point, Hesse (1980, cited in Lincoln and Guba, 1985) further criticizes positivism according to the three most important assumptions-naïve realism, belief in a universal scientific language, and a correspondence theory of truth. According to these assumptions, there is an external world, which can be described, in scientific language. There is one-to-one relation to facts so that the scientist can capture external facts of the world. However, in social sciences 'one-to-one' relationship between variables is not always evident.

In spite of the scientific enterprise's proven success, especially in the field of natural science, its ontological and epistemological bases have been the focus of sustained and sometimes vehement criticism from some quarters. Beginning in the second half of the nineteenth century, the revolt against positivism occurred on a broad front. Cohen and Manion (1994) argued against the world picture projected by science's mechanistic and reductionist view of nature which excludes notions of choice, freedom and individuality. Lincoln and Guba (1985), however, state that post-positivism – that is the interpretive paradigm – could be seen as a reaction to the failings of positivism.

Interpretive paradigm

The interpretive paradigm, which takes qualitative approach, is also known as post-positivist or naturalistic paradigm. This paradigm accepts value and perspective in searching for knowledge. It holds the constructivist view that reality is socially constructed and thus contains multiple connections (Lincoln and Guba, 1985).

Until 1960s educational researchers did not even recognize the interpretive paradigm (Maykut and Morehouse, 1994). Some perceive qualitative researchers as journalists or soft scientists and their work is regarded as unscientific, exploratory, or personal and full of bias (Denzin and Lincoln, 1998a). As criticisms grew qualitative researchers stressed the socially constructed nature of reality; the intimate relationship between the researcher and what is studied (Cohen and Manion, 1994). Qualitative researchers expressed the need for searching answers to questions relating to how social experience is created and given meaning in contrast with the quantitative researchers who emphasized the measurement and analysis of causal relationships between variables, not processes (Denzin and Lincoln, 1998b). Harre (1981, cited in Lincoln and Guba, 1985:30) compares positivism with qualitative paradigm, stating that:

Where positivism is concerned with surface events or appearances, the [qualitative] paradigm takes a deeper look. Where positivism is atomistic, the new paradigm establishes meaning inferentially. Where positivism sees its central purpose to be prediction, the [qualitative] paradigm is concerned with understanding. Finally, where positivism is deterministic and bent on certainty, the [qualitative] paradigm is probabilistic and speculative.'

Therefore, quantitative and qualitative approaches are often presented as two fundamentally different and competitive paradigms through which particular phenomenon are studied (Lincoln and Guba, 2000) and in which there exists a different interpretation of knowledge. However, setting the two paradigms in an adversarial role is perhaps unhelpful while the paradigm view of the relationship between quantitative and qualitative approaches is empirically inaccurate (Clark and Creswell, 2008; Teddlie and Tashakkori, 2009). It implies that we are faced with two homogeneous traditions that are internally consistent and based upon opposed philosophical views. In fact, there is a considerable range and variety of techniques for data collection and analysis in psychology and the social sciences and there is

no fixed relationship between particular philosophical views and the use of particular methods (Clark and Creswell, 2008; Teddlie and Tashakkori, 2009). Gage (1989) made a wide-ranging critique of the 'paradigm wars' between those who extolled the so-called reliability and objectivity of quantitative research and those who saw more validity in the 'thick description' (Geertz, 1973) and 'subjectivity' of qualitative research (Peshkin, 2000), on the grounds that understanding why people behave as they do in various situations is as important as describing what they do. He maintained that research programmes that grow out one perspective only tend to 'illuminate some part of the field ... while ignoring the rest... and that [t]he danger for any field of social science or educational research lies in its potential corruption (or worse, trivialization) by a single paradigmatic view (Shulman, 1986:4). Yet it is remarked that careful choice of the research paradigm should be made on the basis of the research aim (Bogdan and Biklen, 1992, 1998). It is more suitable to choose an approach that is less constrained by limiting theoretical perspectives and more focused on the conceptual, methodological and practical challenges of addressing particularly important research questions (see Bryman, 1988:183). Research approach and methods should be selected on the basis of fitness for purpose. Hence a combination of positivist (quantitative) and interpretivist (qualitative) paradigms can be a good choice in the study. Thus, instead of taking a single paradigm or approach, the combination of both quantitative and qualitative approaches is chosen in this study to provide holistic understandings of the research area. Quantitative and qualitative approaches are further discussed in the following sections in order to understand the rationale behind the choice of the combined use of quantitative and qualitative approaches in this study.

Research Methodology: Quantitative and Qualitative Approaches

Combined use of quantitative and qualitative approaches: why?

The advocates of quantitative and qualitative research paradigms have been hotly discussed. It is noted that the selection of approach should be dependent on the research topic and there are no principle grounds to be either quantitative or qualitative (Silverman, 1993). The combined use of quantitative and qualitative approaches comes from a pragmatic inquiry perspective. Pragmatists argue that methods from both positivist (quantitative) and interpretivist (qualitative) paradigms should be used jointly to better

understand a phenomenon (Howe, 1988). Pragmatism states that both subjective and objective points of view exist, and research should be conducted using whatever methods are necessary to achieve the desired result (Onwuegbuzie, 2002). For ontological assumptions from pragmatic perspective, it is believed that there are multiple realities 'forming an interconnected whole' (Lincoln and Guba, 1985; Creswell, 1994). Knowledge claims arise out of actions, situations, and consequences rather than antecedent conditions as in post-positivism. The pragmatists look to the 'what' and 'how' to research based on its intended consequences-where they want to go with it (Creswell, 1994; 2003). In this study, a multi-methods approach is therefore chosen according to the very nature of this current study for identifying the quantitative and qualitative aspects of the perceptions of CPD of the teachers (Newman and Benz, 1998).

Multi-methods approach

This study used a multi-methods approach in which a method and philosophy attempt to fit together the insights provided by quantitative and qualitative approaches for a more comprehensive understanding of the study problem in order to capture these multiple realities and perspectives that are connected to each other. The core problem of the study is 'what' and 'how' teachers perceive continuing professional development (CPD) when facing the new government CPD policy framework in the CPD Document 2003. This study first attempts to find out teachers' general views about the CPD activities and their needs of the development of teacher competencies as listed in the TCF in the CPD Document 2003 (ACTEQ, 2003) and look for causality between their views and factors affecting their views. Quantitative approach is thus more suitable for outlining common themes as 'Quantitative methods require the use of standardized measures so that varying perspectives and experiences of people can be fit into a limited number of predetermined response categories to which numbers are assigned' (Patton, 1990:13). According to Patton (1990:13),

'quantitative approach is ... possible to measure the reactions of a great many people to a limited set of questions, thus facilitating comparison and statistical aggregation of the data. This gives a broad, generalizable set of findings presented succinctly and parsimoniously.'

As the second attempt of this study is to illuminate and interpret teachers' lived CPD experiences, this means teachers have to get involved with their CPD activities and reporting on their experiences from the school context. This thus calls for a methodology that allows for interpreting those experiences from the perspectives of the people. Based on this, there cannot be any other positivist methods that are suitable for this purpose of study. Qualitative approach is thus considered to be more appropriate because 'qualitative methods typically produce a wealth of detailed information about a smaller number of people and cases... [and] increases understanding of the cases and situations studied' (Patton, 1990:14). As Rudestam and Newton (2001:45) conclude,

'In our experience, a combination of quantitative and qualitative methodologies is often a good choice of method. This approach combines the rigor and precision of experimental (or quasi-experimental) designs and quantitative data with the depth understanding of qualitative methods and data.'

This study adopted an integrated and supportive relationship between the quantitative and qualitative, in which qualitative data is used to establish and support quantitative data for exploratory and confirmatory purposes (Teddlie and Tashakorri, 2009). Therefore, instead of relying on an either quantitative or qualitative orientation, the combined use of quantitative and qualitative approaches provides greater opportunities for exploring, aligning and illuminating the research findings in the study (Tashakorri and Teddlie, 2003) and is thus a useful way for greater breadth and depth to the analysis of the study with a more comprehensive understanding of the study problem than either one could do on its own (Patton, 1990; Fielding and Schreier, 2001). In short, the combined use of quantitative and qualitative approaches helps to complement each other and get a more holistic picture of the research area.

Research Design

Multi-methods sequential design

Research methods should be selected on the basis of fitness for purpose. This multi-methods study is based on a sequential design. This is characterized by 'the collection and analysis of quantitative data in a first phase of research followed by the collection and analysis of qualitative data in a second

phase that 'builds on' the results of the initial quantitative results (Creswell, 2009:211). It is used to explain and interpret quantitative results by collecting and analysing follow-up qualitative data. The multimethods include the use of questionnaires as followed by focus group interviews (see Figure 3.3.1). The two forms of data are separated but 'connected' (Collier and Elman, 2008:780; Creswell, 2009). The use of questionnaires first identified teachers' perceptions of CPD activities as well as their perception of the development of teacher competencies in the TCF of the CPD Document 2003, and investigated their perceived factors affecting CPD. The focus group interviews then further explored teachers' perceptions of CPD activities and the development of the teacher competencies based on the results as gained from the questionnaires. After that, the individual semi-structured interviews were conducted to confirm and expand teachers' perceptions upon their understanding and participation in CPD.

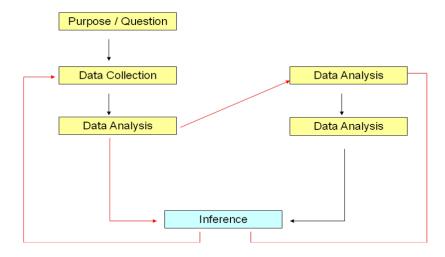


Figure 3.3.1: Sequential Multi-Methods Design

Triangulation

The use of multi-methods in this study serves as triangulation purpose in the process of data collection and analysis. Triangulation is described as 'generally a process of using multiple perceptions to clarify meaning, verifying the repeatability of an observation or interpretation' to 'clarify meaning by identifying different ways the phenomenon is being seen' (Stake, 2000:443). Data triangulation is strengthened through an ongoing process by reviewing data analysis of the existing data sets and comparing the information from multiple sources (questionnaire, focus group interviews and individual

interviews) in order to ensure the accuracy of the data interpretation. Triangulation thus helps 'map out, or explain more fully, the richness and complexity of human behavior by studying it from more than one standpoint and, in so doing, by making use of both quantitative and qualitative data' (Cohen *et al.*, 2000:112). In this study, the quantitative findings of teachers' perceptions of CPD activities and the development of teacher competencies in the TCF of the CPD Document 2003 are compared with the qualitative findings of focus group interviews which typically focus in depth on relative small samples and teachers' needs and beliefs can be well understood with the use of such an in-depth inquiry (Patton, 1990). In short, the multi-methods design helps to complement each other and get a more holistic of the research area.

Questionnaire survey

Why questionnaire survey?

One of the multi-methods used in this study is questionnaire survey. The use of the questionnaire survey has its strengths in collecting information within a shorter period of time. It helps get an overview of the situation more easily and conveniently as its use is able to collect a large amount of quantitative data reflecting general perspectives in an efficient way (Walker, 1985; Bryman, 2001) and enable comparisons to be made across groups in the sample (Oppenheim, 1992:115). The use of the questionnaire in this study helps get an overview about teachers' perceptions regarding CPD. The data are used for further examining their perceptions towards CPD in the second phase of data collection in the study. However, the use of questionnaires has some limitations. Atkinson (1992:52) reminds us that:

'We do not have perfect theoretical and epistemological foundations; we do not have perfect methods for data collection; we do not have perfect or transparent modes of representation. We work in the knowledge of our limited resources. But we do not have to abandon the attempt to produce disciplined accounts of the world that are coherent, methodical, and sensible.'

The researcher needs to be careful not to oversimplify the issue under investigation.

Design

A self-developed questionnaire survey (hereafter CPD Questionnaire Survey) was designed with reference to the CPD Document 2003 (ACTEQ, 2003) (Please refer to Appendix IIIa and IIIb: CPD

Questionnaire Survey for details) and the review of the literature (e.g., Lee, 2002). The CPD Questionnaire Survey used the Teachers' Competencies Framework in the CPD Document 2003 (ACTEQ, 2003) in developing the items concerning teachers' perceptions about CPD activities and their professional development needs. The underlying reasons why the questionnaire survey used the policy framework (i.e. CPD Document 2003) are: First, this framework is 'the milestone for Hong Kong teachers' professional development' as it 'formulates an important foundation for motivating teachers' involvement in CPD' (Chan and Lee, 2008:83). Second, it provides a common reference for developing teachers' CPD for both schools and teachers in Hong Kong (Chan and Lee, 2008). Third, teachers' perceptions and views can be compared with those suggested in the TCF so as to see if there are any discrepancies between policy and school practice so as to seek further improvement and development in the school context.

For the design of the CPD Questionnaire Survey, the language used in the survey is in Chinese as Chinese is the first language of the teachers in the study. It contains four parts, which are:

- 1. demographic information;
- 2. perceptions of CPD activities (preference, participation and perceived effectiveness of CPD activities);
- 3. perceptions of the professional development needs; and
- 4. perceptions of factors affecting teachers' participation in CPD activities.

Specifically, Part 2 and Part 3 used 4-point Likert Scale in exploring teachers' perceptions of CPD activities and professional development needs. In Part 2, there are three parts: preferences, participation and perceived effectiveness of CPD activities. For preferences of CPD activities, the teachers were asked to identify their preferences on CPD activities, ranging from 4 representing "most preferred", 3 representing "preferred", 2 representing "slightly preferred" and 1 representing "not preferred". For teachers' participation in CPD activities, teachers identified the extent to which they participated in CPD activities, ranging from 4 representing ">150 hrs", 3 representing "101-150 hrs", 2 representing "50-100 hrs" and 1 representing "<50 hrs". Teachers' perceptions about the effectiveness of the CPD activities were also identified on the 4-point Likert Scale, which is ranged from 4 representing "most effective", 3 representing "effective", 2 representing "quite effective" and 1 representing "slightly or not effective".

In Part 3, teachers' urgency of the professional development needs on the four domains that contain 42 CPD strands were identified according to the use of 4-Likert Scale, ranging from 4 representing "very urgent", 3 representing "urgent", 2 representing "quite urgent" and 1 representing "little or not urgent at all." The last part in the questionnaire survey concerning perceptions of factors affecting teachers' participation in CPD activities used open-ended questions to let teacher elicit their perceptions upon facilitating and inhibiting factors that affect their participation in CPD activities. There is a comment box as followed by the above two open-ended questions in order to let teachers further express their views or feelings about CPD.

Pilot study

A pilot study of the CPD Questionnaire Survey was carried out in January 2006. The pilot questionnaire was sent out to a school of 30 teachers of a subsidized Christian primary school in the same district. The purpose of the pilot study was to verify the reliability of the questionnaire. The reliability of the questionnaire was assessed. Cronbach's alpha was used to determine the reliability of the instrument and to determine the correlation of individual items to the survey total. The reliability of the items was tested as high, with an average of over 0.70. Modifications were made according to the feedback of the group of teachers.

Table 3.3.3a: CPD activities listed in the CPD Document 2003 (ACTEQ, 2003)

Item no.	CPD Activities
1.1	Local/Overseas Conferences, Symposia, Workshops, Courses
1.2	Offshore study visits
1.3	Higher academic study
1.4	Peer class observation
1.5	Collaborative teaching
1.6	Formal learning/study circles among colleagues
1.7	Visits to other schools to share teaching experiences
1.8	Mentoring
1.9	School-based projects
1.10	Action study
1.11	Publications
1.12	Service to education and the community

Table 3.3.3a showed the twelve CPD activities that are included in the CPD Questionnaire Survey. The selection of the twelve CPD activities was based on the CPD Document 2003 (ACTEQ, 2003) and the literature review. The twelve CPD activities are commonly found and provided by the local

government and primary schools. Table 3.3.3b showed the CPD domains based on the Teacher Competencies Framework (TCF) in the CPD Document 2003.

Focus group interview

Why focus group interview?

The second phase of data collection is the qualitative aspect with the use of focus group interviews with teachers. Marshall and Rossman (1999) point out that interviewing is one of the four main methods in collecting data in qualitative research. They write, 'interviews are more like conversations than formal predetermined response categories, whereas the researcher explores a few general topics to aid the participants in expressing their views but respects the participant responses' (Marshall and Rossman, 1999:108). The use of focus group interview is growing in education research (Cohen *et al.*, 2000). Focus groups are a form of group interviews and it relies on the interaction within the group who discuss a topic supplied by the researcher (Morgan, 1988:9, cited in Cohen *et al.*, 2000). The participants thus can interact with each other rather than the interviewer. This allows for emerging the views from the participants by being less predominated by the researcher (Cohen *et al.*, 2000). The most benefit of focus group interviews is 'they are economical on time, producing a large amount of data in a short period of time (Morgan, 1988).

Therefore, due to time constraints and busy lives of teachers, the researcher chose focus group interview to elicit further responses from the teachers in order to get better understanding of their needs and perceptions. Focus group interview has dual functions: First, it allows for more flexibility and stimulus to teachers who can express their comments or opinions in a less threatening way. On this point, Benney and Hughes (1956) contend that: The interview is an understanding between the two parties that, in return for allowing the interviewer to direct their communication, the informant is assured that he will not meet with denial, contradiction, competition, or other harassment.

Second, it helps to unfold and scaffold their views with each other through this kind of nondirective interaction between the researchers and the interviewees. As Merton and Kendall (1946), as cited in Cohen *et al.* (2000: 273) explain, In the usual depth interview, one can urge informants to reminisce on their experiences. In the focused interview, however, the interviewer can, when expedient, play a more active role: he can introduce more explicit verbal cues to the stimulus pattern or even represent it. In either case this usually activates a concrete report of responses by informants.

Apart from that, focus groups are useful for:

- Orientation to a particular field of focus;
- Developing themes, topic, and schedules for subsequent interviews and/or questionnaires;
- Generating hypotheses that derive from the insights and data from the group;
- Generating and evaluating data from different sub-groups of a population;
- Gathering feedback from previous studies (Morgan, 1988; Krueger, 1988, cited in Cohen et al., 2000)

However, it is noted that there exists a limitation of focus group interviews. That is, they tend to produce less data than interviews with the same number of individuals on a one-to-one basis (Morgan, 1988).

Design

After analysing responses from the questionnaire from the teachers of the school, follow-up questions were developed for further exploring teachers' perceptions upon their needs and current provision. The researcher developed a semi-structure interview guide to guide the focus group interview (see Appendix IV: Focus Group Interview Guide). In this study, the interview guide for focus group interview is a semi-structured one. The use of interview guide helps the researcher to be clear about the instructions and facilitate the flow of the interviews. The interview questions are designed to further explore what and how teachers perceive upon CPD activities and their personal development of teacher competencies as listed in the TCF in the CPD Document 2003 (ACTEQ, 2003) and seek further explanation about the quantitative data as gathered from the questionnaire survey in the first phase of data collection.

Pilot study

In February 2006, the questions in the interview guide were piloted to the teachers who had been involved in the pilot questionnaire survey. The researcher had a focus group interview with these teachers so as to verify the validity of the questions. Meanwhile, the purpose of the questions was to get more in-

depth understanding of the issues being raised, as well as to search for discovering explanations rather than just descriptions of the issues.

Table 3.3.3b: Teacher Competencies Framework (TCF) in the CPD Document 2003 (ACTEQ, 2003)

Domain	Dimensions	Strands
Teaching	Subject matter	1.1 command of subject matter knowledge
and Learning	knowledge	1.2 updating of subject matter knowledge and search for new subject knowledge
		1.3 sharing and exchange of subject teaching practice
	2. Curriculum and	2.1 command and application of pedagogical content knowledge
	pedagogical content	2.2 curriculum design, implementation and improvement
	knowledge	2.3 updating and sharing of pedagogical content knowledge
	3. Teaching	3.1 knowledge and application of teaching strategies and skills
	strategies and skills,	3.2 language proficiency
	use of language and	3.3 motivation of student learning through different teaching methods and multi-media
	multi-media	3.4 research and dissemination on teaching strategies and skills
	4. Assessment and	4.1 student assessment methods and procedures
	evaluation	4.2 use of student assessment results
		4.3 evaluation and review of teaching and learning programmes
Student	5. Students' diverse	5.1 understanding students' diverse needs
Development	needs in school	5.2 identifying and supporting students' diverse needs
•		5.3 collegial collaboration in identifying and supporting students' diverse needs
	6. Rapport with	6.1 awareness of the importance of establishing rapport with students
	students	6.2 building trust and rapport with students
	7. Pastoral care for	7.1 providing pastoral care for students
	students	7.2 collegial collaboration in providing pastoral care
	8. Students' different	8.1 participation and implementation of student development activities
	learning experiences	8.2 planning and organization of student development activities
	3 - 1 - 1 - 1	8.3 whole person development of students
School	9. School's vision	9.1 adaptation to the school vision and mission, culture and ethos
Development	and mission, culture	9.2 actualization of school beliefs, vision and mission
,	and ethos	9.3 cultivation of a caring and inviting school climate
		9.4 contribution to reviewing the school vision and mission, as well as promoting the
		school culture and school image
	10. Policies,	10.1 understanding school goals and policies
	procedures and	10.2 implementation of school policies, procedures and practices
	practices	10.3 formulation of school policies, review of procedures and practices for continuous
		school development
	11. Home-school	11.1 understanding students' family backgrounds
	collaboration	11.2 communication with parents
		11.3 involvement in parent-related activities
		11.4 building trust with parents for further school development
	12. Responsiveness	12.1 awareness and knowledge of societal changes in relation to their impact on school
	to societal values and	12.2 responsiveness to societal changes and issues related to social values
	changes	
Professional	13. Collaborative	13.1 working relationships with individuals
Relationships	relationships within	13.2 working relationships with groups
and Services	the school	13.3 working relationships within formal structures
	14. Teachers'	14.1 sharing of knowledge and good practices with others
	professional	14.2 contributions to teachers' professional development
	development	
	15. Involvement in	15.1 awareness and knowledge of policies related to education
	policies related to	15.2 responsiveness to policies related to education
	education	15.3 contributions to policies related to education
	16. Education-related	16.1 interaction with the broader community
	community services	16.2 participation in education-related community services and voluntary work
	and voluntary work	

Individual semi-structured interview

Why individual semi-structured interview?

The third phase of the data collection is individual semi-structured interview with teachers who participated in the focus group interviews. The aim of using individual semi-structured interview is to further expand, elicit and clarify views from the participants. Interview techniques were guided by the work of researchers such as Spradley (1979), Mischler (1986) Seidman (1990) and Anderson (2000). Cohen, Manion and Morrison (2000:268) point out that this type of interview serves three important purposes: (1) it may be used as the principal means of gathering information having direct bearing on the research objectives; (2) it may be used as an exploratory device to help to identify variables and relationships; and (3) it may be used in conjunction with other methods in a research undertaking to follow up unexpected results or to validate other methods or to go deeper into the motivations of respondents and their reasons for responding as they do. In this study, the individual interview with teachers was attempted to gain thicker information and obtain a deeper understanding about teachers' understanding and experiences in CPD participation.

Design

All the six participants in the focus group interviews were invited to the individual semi-structured interviews. The interviews were carried out in August and September 2010 respectively. The design of the questions was based on the responses drawn from the literature review and the data of the focus group interview. The time required for interviews was about an hour. An interview guide was used for the researcher to ask the written questions but the exact sequence and wording does not have to be followed with each respondent (see Appendix V: Individual Semi-Structured Interview Guide). Using an interview guide is useful in supporting to give clear instructions and maintenance of discretion during the interview process.

Pilot study

In mid-August 2010, the questions in the proposed semi-structured interview guide were piloted to the teachers who had been involved in the pilot focus group interview. Some amendments were made

according to the feedback from the involved teachers. The researcher had a semi-structured interview with two teachers so as to verify the validity of the questions. Meanwhile, the purpose of the questions was to get a more holistic understanding of the issues being raised, as well as to search for seeking explanations rather than just descriptions of the issues.

Participants

The CPD Questionnaire Survey was conducted in three primary schools which were selected using convenient sampling method (Appendix VI: Participant Information). The reasons that the researcher chose these teachers are: First, the researcher gains easy access to the three school sites and identify the teachers the researcher wants to study. Second, the researcher has built up the trusting relationship with the teachers in School A as she was a teacher there. Third, these teachers have had different kinds of CPD experiences and get involved in various kinds of CPD activities, such as school based seminars, workshops, inter-school tour visits, partnership projects with universities, government funded school based curriculum development support service and attending university degree courses.

The three primary schools in this study are all government funded subsidized schools in the same district and have the same religion background of Christianity. All of them are active in participating in school-partnership projects and conducting sharing sessions in connection with the Education Bureau and other tertiary institutions.

However, these three schools are varied in the school size based on the number of classes. The number of classes of School B is smaller than School A and School C where School A and School C have more than 24 classes. Relatively, School A is the oldest school amongst these three schools as it was established in 1975 and the other two schools, School B and School C, were established in 1989 and 1999 respectively. At the time of data collection, School B was facing the risk of reduction in number of classes. School B has a smaller number of teachers with Bachelor degree or above. School C, however, has a younger team of teachers.

In order to understand more about the teachers' school backgrounds in the aspect of CPD. The school documents including school newsletter, school annual plan and report and teacher handbook were

collected. It is found that there are common features about the school provision of CPD activities. They include: First of all, as a part of government education policy, all of the three schools have three professional development days. They have in-house workshops or seminars which are held by external experts from tertiary institutions and the topics are chosen according to the major concerns as listed in their school development plans. Second, peer class observation is within their appraisal systems in which teachers have to do peer observation and complete the records of the peer observation for their own appraisal portfolio. Third, the records of CPD activities, structured and non-structured learning modes, are included in the appraisal system of these schools. Fourth, all of these schools have fixed co-planning periods for teachers in the core subjects like Chinese language, English language, Mathematics and General Studies. Interestingly, two of them, School A and School C, provide co-planning guidelines to teachers in their teacher handbook. Fifth, another CPD activity, co-teaching, is not common in all subjects in these three schools but all of these schools have co-teaching in the English language subject under the Native English-speaking Teacher Scheme (NET Scheme) which is supported by the Education Bureau of the Hong Kong government. Co-teaching is implemented where the local English teachers co-teach with local English subject teachers for one to two lessons in a week. Therefore, with the above features, it is noted that these schools take CPD as a part of their appraisal systems and their CPD activities are all related to or grounded in the subject teaching matters.

However, there are some differences in the school based CPD policy and management. First, regarding the relationship between school appraisal and CPD, in School A, there was a relationship between CPD and appraisal while one part of teachers' personal appraisal portfolio is CPD record while the other two schools did not. Second, concerning annual CPD planning, three schools had CPD annual plans. The CPD annual plan of School A and School B was based on areas of concern of the whole school and there would be thematic seminars and/or workshops that were held for all teachers. But School C's CPD annual plan was rather different where different subject departments may have different CPD activities according to specific needs in the subjects. Third, in the aspect of *CPD records management*, School A has CPD records which consisted of number of CPD hours, events, and related information. The records were kept in a CPD record box. The number of CPD hours and CPD activities

attended were recorded in a personal appraisal portfolio while targets and expectations of CPD were also stated in the appraisal portfolio, as followed by a follow-up evaluation interview at the end of the academic year. For School B and School C, the CPD records contained the number of CPD hours, events, and related information. The records were kept in a CPD record box. Fourth, in the aspect of the decision making process of Who decide school-based CPD activities, for School A, the executive management team first collects teachers' opinions about CPD needs. The theme and activities for professional development days are then discussed at the executive management team that consists of the principal, vice-principal and middle managers. But School C had a different way in making decisions about schoolbased CPD activities. The executive management team of School C collected teachers' opinions about CPD needs for professional development days. Teachers could suggest the learning contents and activities for professional development days. Sixth, regarding the school-based CPD activities, for School A and School B, school-based CPD activities mainly contained three official professional development days that were compulsorily requested by the government. For School C, school-based CPD activities consisted of three official professional development days that were compulsorily requested by the government were included in School C's school-based CPD activities, as well as external consultancy services for different subjects that were available for teachers who could exchange and ask for advice from the external consultants of faculties of education of universities. Seventh, regarding external CPD activities, there was no formal circular system for distribution CPD information in subject groups of School A and School B while a formal circular system was used for circulating the relevant CPD information to the subject leaders who are responsible for distributing the information to all the members. The members are required to sign their names. But when teachers attended external CPD activities, all three schools had an arrangement of substitute teachers and adjustment of lesson time and the CPD coordinator of all three schools is the curriculum officer of the schools, i.e. Primary School Master/Mistress (PSMCD).

Data Collection

CPD Questionnaire Survey

The CPD Questionnaire Survey was administered as a census by the teacher as appointed by the principal in the three participating schools and takes not more than 30 minutes to complete (see Appendix II). The researcher did not get involved in the process of collecting the questionnaire so as to avoid bias and artificial or favourable responses based on interests or preferences. The survey was carried out in April 2006.

Focus group interviews

In this sequential multi-methods study, after the first phase of analysing the quantitative data generated from the CPD Questionnaire Survey, in order to get a more deep understanding of teachers' professional development experiences and needs, only the teachers of the School A and School C were selected for a focus group interview. The focus group interview could not be carried out in School B due to time constraint and unavailability of teachers. Two focus group interviews were conducted in July 2006 for the second phase of data collection. Focus group interviews were conducted to two groups of teachers from School A and School C. It consisted of two groups of a small homogenous sample of teachers (see Appendix VI: Participant Information). The selection of the teachers involved in the focus group interview was purposively based on the participation rate of CPD, teaching rank, years of teaching experiences, role responsibilities and age. The number of teachers in each of the focus group interview was three. The group was asked questions along the same lines as the questionnaire in a focus group interview and the survey results of CPD Questionnaire Survey were shown to the interviewees at the focus group interviews. The purpose was to seek and elicit further responses from the interviewees and let teachers elaborate and confirm the data in the questionnaire survey in this follow-up phase of data collection (i.e. focus group interviews) (Creswell, 2009). It helps broaden and enrich a deeper understanding of what the questionnaire results actually said.

The two focus group interviews were arranged at a suitable time (i.e. after school hours) and they were conducted at the schools which the participating teachers worked in so as to be more convenient for

all participants in the focus group interview. The interviews were conducted in the use of mother tongue (i.e. Cantonese). Each participant was given a copy of the survey results. With the help of the experts, the researcher developed the questions for guiding the interview. Responses for the interview were then tape recorded and transcribed. The raw data were literally transcribed. After completing the interview, the interviewer checked the tape and wrote down some notes so as to ensure the validity of the qualitative inquiry (Patton, 1990).

Individual semi-structured interviews

After collecting the focus group interview data, follow-up individual semi-structured interviews were arranged at a suitable time (i.e. after school hours). The individual interviews were conducted in Cantonese. The participating teachers included those six teachers who participated in the focus group interviews before in order to further explore teachers' views and perceptions upon CPD. The interviews were carried out in August and September 2010 respectively. Responses for the interview were then tape recorded and transcribed. The raw data were literally transcribed. After completing the interview, the interviewer checked the tape and wrote down some notes so as to ensure the validity of the qualitative inquiry (Patton, 1990).

Data Analysis

CPD Questionnaire Survey

Principal component analysis, one form of factor analysis, was used for the pilot data for establishing construct validity of the CPD Questionnaire Survey. Principal component analysis is a way of identifying patterns in data, and expressing the data in such a way as to highlight their similarities and differences (Smith, 2002). Since patterns in data can be hard to find in data of high dimension, where the luxury of graphical representation is not available, principal component analysis is a powerful tool for analysing data. The other main advantage of principal component analysis is that after finding patterns in the data and compressing the data, reducing the number of dimensions does not cause much loss of information.

Scree test was used to plot shape of the curve changes direction and becomes horizontal (Pallant, 2005). Catell (1966) recommends retaining all factors above the elbow, or break in the plot, as these factors contribute the most to the explanation of the variance in the data set.

For the quantitative data of the questionnaire survey, data analysis was conducted with the use of a computer program, SPSS for Windows. Cronbach's alpha was conducted to determine the reliability of the instrument and to determine the correlation of individual items to the survey total. This is important to ensure that the items give a significant contribution to the total. Principal Component Analysis (PCA) was used to establish construct validity of the survey data and create 'an empirical summary of the data set' (Tabachnick and Fidell, 2001:611). Cronbach's alpha was run on each of the factors to determine the reliability of the questions to each factor and the total survey. The factors that remain after principal component analysis were the basis for further analysis in the study.

The qualitative data in the questionnaire survey (i.e. written responses to the open-ended questions about their perceptions of facilitating and inhibiting factors affecting teachers' participation in CPD activities) was handled with the use of quantifying process in which the data were categorized based on emerging themes. The themes were emerged with the use of traditional coding techniques such as colour coding and grouping according to the numbered notes.

ANOVA tests were used to test if there is any relationship between demographic characteristics and teachers' perceptions of CPD activities. Chi-square tests were used to test relationship between demographic characteristics and teachers' perceptions of factors affecting their participation in CPD.

Focus group interview and individual semi-structured interview

Data gathered from the focus group interview and individual semi-structured interview were reported and analysed by clarifying the information into categories, themes and dimensions. The qualitative analysis of the focus group interview and individual semi-structured interview included coding the raw data, repeated listening to the interview audiotapes, and reviewing the copies of the transcribed interviews by reading and re-reading. Some traditional techniques were employed to do the coding with a pencil and other colour highlighters, include: marking and highlighting, adding notes and comments to the

text, cutting and pasting of key words/phrases, the identification of concordance in the context of certain words, forms of graphical representation of issues, note cards and card sorts, and finally thematic analysis. During the process, the interviews were colour-coded and grouped into themes and issues that were numbered and generated. The coding was done and verified through careful exploration of the deeper meaning of the participants' words and actions. This process included checking for the participants' experiences. The next step consisted of categorizing the themes and identifying relationships among the themes that emerged from different data sources or participants. 'Correspondences' among the different sources of data were identified (Stake, 1995). These steps will be repeated several times until the grouping represented the best reflection of the participants' perceptions of CPD. The complete process of categorization was done with reference to the research questions and the literature review.

Ethical Issues

Ethical issues are important for any research that deals with real people in real world situations (Bassey, 1999). Bell (1999) emphasizes that a researcher must identify and be guided by ethical protocols throughout the research process. Simons (1995:436, cited in Basit, 2010:56) defines ethics as 'the search for rules of conduct that enable us to operate defensibly in the political contexts in which we have to conduct educational research.' The following are the ethical considerations in this study.

Access

It is important to note that the ethical issues arising from access to the three schools should be reminded in this study. In this study, being a curriculum coordinator in School A allowed the researcher to get access to the school site and know all the teachers there so it helps give interviewees confidence, trust and a relaxing atmosphere during the focus group interview. However, the researcher needed to be aware of possible biases and prejudices by using different methods of gathering data (questionnaire survey and focus group interview). The researcher also gained official approval from the school principals of the schools involved in the study. For School B and School C, the researcher is an outsider. The researcher gained access to these two schools because she knew the principals. First of all, the researcher is an insider and outsider in this study. The researcher recognized her own involvement and

job position as a curriculum coordinator in School A where she is an insider. However, from the research perspective, the researcher was trying to look at the study problem from an outsider perspective. There may be a dilemma about the researcher being an outsider and insider at the same time. It is thus important to keep in mind about the role of the researcher as an insider and outsider so as to make sure that the data collected are valid and avoid 'bias and subjectivity' (Nisbet and Watts, 1984, cited in Cohen et al., 2000:184).

Informed consent, confidentiality and trustworthiness

To protect the participants' rights and conducting the study in an ethnical manner (Wiersma, 1995), the research ethics approval of this study was obtained from the School of Education of the University of Nottingham in October 2005.

In the data collection process, it is important to build up trust relationship with the teachers. I informed the participants about the purpose of the research and indicated the extent of commitment required of the participants. The research data were also kept confidential. The questionnaires were distributed to the teachers in the three schools in April 2006. Permission was requested from the principals to survey the teachers (see Appendix VII: Letter to Principals). A consent form was distributed to all teachers (see Appendix VIII: Participant Consent Form). All participating teachers were voluntary and had the rights to withdraw at any time. It was clearly stated before the survey and interview that no person would be identified. After gaining all teachers' consent, the questionnaire survey was distributed and collected by the person-in-charge as appointed by the principals. Data were collected over approximately two weeks (including the delivery of the questionnaire and return by the teachers). The researcher developed survey packets with a copy of the questionnaire and a sealable envelope for confidential return of completed questionnaires. At the top of the questionnaire, the purpose and importance of the study, assurance of confidentiality and instructions for return of completed questionnaires were stated. The researcher explained the purpose of the study to the teachers and distributed survey packets to the teachers. The teachers were asked to complete the questionnaires within 30 minutes.

For the focus group interviews and individual semi-structured interviews, at the start of interviews, the researcher re-stated that the purpose of study was to understand a general picture of teacher' perceptions and experiences in CPD, and the names of the participating teachers were kept confidential and pseudonyms for individual teachers were applied in order to protect their identities. The results of the study will also be communicated to the participants. All the data were kept for 5 years and then they will be discarded.

Summary

A combination of quantitative and qualitative research methods are utilized in the study for the purpose of getting a more accurate and holistic representation of the teachers' perceptions concerning CPD. After completing and verifying the quantitative and qualitative analysis results, the researcher will compare them and examine whether there are consistencies or discrepancies between them.

Although the data are sourced from three schools and the data may lack generalizability to the other schools, this study can be helpful to give some insights to other schools of similar characteristics in future teacher professional development. In the next chapter it will present the findings of teachers' perceptions of CPD activities.

CHAPTER FOUR

WHAT ARE TEACHERS' PERCEPTIONS OF CPD?

Introduction

Chapter Three identified the methodologies that were selected to explore teachers' perceptions of CPD activities and their professional development needs. This Chapter Four sets out the findings with regards to the teachers' perceptions of CPD activities concerning their preference, participation and perceived effectiveness. The CPD Questionnaire Survey, focus group interviews and individual interviews were conducted to investigate the research question 'What are teachers' perceptions of CPD activities and their professional development needs and what factors affect their CPD participation?'. It begins with a description of demographic characteristics in the CPD Questionnaire Survey. The findings of the study are then presented according to emerging themes as follows.

Demographic Characteristics in the CPD Questionnaire Survey

Table 4.1.1 presented the response rate of the respondents in questionnaire survey in each participating school in the study. The response rates of school A and school C were high, with 94.6% (N=35) and 100% (N=43) respectively. The response rate was low, with only a 39.1% (N=9) in school B.

Table 4.1.1: Number of respondents in each school

	Number of expected respondents	Number of respondents	Response rate
School A	37	35	94.6%
School B	23	9	39.1%
School C	43	43	100%
Total	103	87	84.5%

Regarding the specific characteristics of the respondents, a majority of them were female with 80.5% of the total, while male respondents comprised 19.5%. More than a half of the teachers were aged between 20-30 years teachers (N=54, 62.1%). A majority of the sample had a bachelor degree (N=65, 74.7%). There was only a small proportion of teachers who had a teacher certificate as their highest qualification (N=9, 10.3%). There were more teachers (N=13, 14.9%) holding a master degree than those having a teacher certificate. A majority of the respondents had 0-5 years of teaching experience (N=37, 42.5%).

Nineteen respondents had 11 years of teaching experience or above (21.8%). 72.4% (N=63) were Certificated Master/Mistress (CM) teachers consisted of 72.4% (N=63), while 11.5% (N=10) were Assistant Primary School Master/Mistress (APSM). Assistant Master/Mistress (AM) teachers constituted 9.2% (N=8) whilst 6.9% (N=6) were Primary School Master/Mistress (PSM). This is the hierarchy of the teaching profession ordered from PSM as the highest rank which involves middle management and administration to CM as the lowest rank on the basis of the government ranking of teachers. The following sections are going to report the results of the CPD Questionnaire Survey, focus group interviews and individual interviews in this multi-methods study.

Meanings of CPD

CPD as a ladder to career development

Teachers considered CPD as a route to secure the job or get promotion chances. They considered that getting a higher degree is more important when compared with the past. One teacher expressed,

"Generally better [for getting a degree]. Although the school still has the Assistant Master (AM) (middle management) rank, some teachers who may not have a degree still can apply for this rank. However usually for teachers, getting a degree is a guarantee and it's very different from the past ten or twenty years. Ten or twenty years ago getting a teacher certificate in education was okay, and when you get some years of experience; you would have a chance to be promoted. For current promotion, having a bachelor degree is basic, if you want to be promoted to the Primary School Mistress (PSM) (middle management) rank, actually there are already a few colleagues who have got a master degree... when there are two colleagues who apply for the promotion of the same rank, one of them has a bachelor degree, and another one has not got a bachelor degree. It's true that he/she has more CPD hours and more than the Education Bureau's basic requirement of 50 CPD hours, possibly with 100-200 hours, compared with the other colleague, he/she has more as he/she participated in more workshops held by the Education Bureau, however, the school still would choose the teacher with a bachelor degree, when both of the teachers have similar job performance. ... like in English subject, at least he/she has got a bachelor degree in English, ... the qualification is higher than the others who have none. It is beneficial to English subject development in the school." (Teacher E, female, School A, Individual interview, 25 August 2010)

The above represents that studying a degree course is more or less more important than ordinary CPD activities like seminars or workshops as recognition of a degree course is higher than other types of

CPD activities. But, at the same time, it reflects that the demands on teachers' qualifications become higher. This higher demand has affected teachers' choices of CPD activities.

CPD as a continuous cycle to update and deepen professional knowledge and skills

In this study, teachers expressed that one of the purposes of CPD for teachers is to have continuous improvement in professional knowledge and skills and be exposed to a deeper understanding of teaching pedagogy. One teacher shared her experience of studying in a degree course as her CPD, stating that:

"Two years ago I attended a degree course at the Open University of Hong Kong and discovered more about the rationale behind English learning and teaching. For example, grouping method in practice, advantages and disadvantages of the grouping method, and then I can make the best choice in my teaching... there are some inspirations during the course, ...there are some practical examples from foreign countries and I could know more about how the teachers of other countries handle the topic." (Teacher F, female, School A, Individual interview, 25 August 2010)

Teachers regarded that participating in CPD activities like higher academic study is helpful to teachers to get more exposure to the subject knowledge and help them to be more adequate in their subject and pedagogical knowledge. Even teachers in this study obtained teacher training, they did feel a need for refreshment upon their subject knowledge and enhance their current standard of knowledge and skills. One teacher expressed that:

"For me, I think I got some credits at the college of education, but most of them were related to education. Compared with other universities, perhaps some teachers study Chinese language for three years and get a PGDE (postgraduate graduate diploma of education), would there be a deeper understanding of the subject? I have been very puzzled for long, I am afraid I don't have adequate knowledge, when compared with others. Of course both types have their own strengths and weaknesses... when I studied Chinese language in the bachelor degree programme, the focus was mainly about analysis and appreciation of poems, that is a kind of comparative study, that is important. ... but there is a difference between studying for a bachelor degree at the IEd (Hong Kong Institute of Education) and other institutions.... There is a time difference between what I learnt in the past and the present. At the time of studying the bachelor degree, there was a teaching practicum period, but the practicum time duration is rather short. You may not have an inspiration to your professional learning. But after teaching for some years, you have further studies and the studies are related to what you are doing. You may have some different reflections. Just like when you read a fiction at different times, like during primary education, secondary education and university education, you will have a different inspiration towards the same fiction." (Teacher K, male, School C, Individual interview, 21 September 2010)

Meanwhile, teachers regarded that they need continuous improvement through participating in CPD activities because each teacher's starting point to teach is varied from individuals. The following teacher expressed that:

"... for an in-service teacher ... it is essential to have teacher training and continuous studies. Because every teacher's year of experience is different, some of them continue to pursue higher qualifications in continuous studies ... So the government or some tertiary institutions provide some studies related to teacher continuous development for teachers. That is helpful to teachers to update and upgrade their profession, especially when there are some experience sharing sessions that are similar to school based programmes or future development to the school, we can supplement to each other." (Teacher Y, female, School C, Individual interview, 21 September 2010)

In this regard, CPD is regarded as a basic need for improving learning and teaching. This teacher expressed,

"...I think [CPD] is a must...just like drinking water... this is essential....this is something there...this is not a job...it is already integrated there....even I read some news, I am learning something. ... just like some programmes about ecology, I am learning when watching the programme....so I won't say whether it's important or not....this is the basic need." (Teacher N, female, School C, Individual interview, 21 September 2010)

CPD, for teachers in this study, is an ongoing activity to keep up with the latest information about pedagogy and teaching. Through CPD activities, teachers can get access to the latest news about teaching and learning more easily. Attending CPD activities not only helps teachers to get more chances to be exposed to more updates about subject knowledge and pedagogical knowledge and skills but also it is helpful for teachers to find the updated teaching materials. One teacher shared about his CPD experience of attending a workshop about calligraphy. He said,

"On the teaching level, I will know ... when teaching Chinese calligraphy, I know where to find the teaching materials, for example, when teaching Ngan Chun Hing type of calligraphy, I need to find the related materials, some of the materials can be directly or indirectly found during the CPD course." (Teacher K, male, School C, Individual interview, 21 September 2010)

Teachers regarded that importance of CPD relies on its fashionable trend in the global world.

They realized that CPD is important to their professional lives and the effectiveness of student learning through enhancement of skills and knowledge. One teacher shared that,

"It is for enhancing professional skills, of course, it is helpful to learning and teaching. It's good for student learning...I think... from different angles, first it's according to the trend. Actually the government has continually stressed it, like giving some resources or holding some project items for us, or organizing workshops or seminars, giving us chances to participate, actually I think the government already set up a framework, now it's just let us have some practice." (Teacher J, female, School A, Individual interview, 17 August 2010)

CPD is regarded as an ongoing process for individual teachers who widespread their personal growth to collective growth of students. The following teacher elaborated that:

"... For personal career development... I think this development is very important; I need to study continuously, or learn in an ongoing way. This is for personal growth..." Actually this growth is not just for myself, this growth helps to help others grow up as well, including my friends, possibly...my next generation... there are always changes at times, so we have to learn more and what was learnt may not be suitable for nowadays. In the past it's spoon-feeding type of teaching. I cannot use this type of teaching to teach my next generation as it's not a good thing. So apart from personal growth, we are teaching next generation, and we can affect our peers. And I am responsible for environmental education, ... currently the global warming problem is very severe... I think we should educate the next generation to love the environment, this is a kind of sustainable development... this is world-wide. .. there is a close relationship between the environment and us..." (Teacher N, female, School C, Individual interview, 21 September 2010)

Interestingly, teachers in this study considered that participating in CPD activities indirectly helps teachers to develop and boost their self-confidence in subject knowledge and pedagogical knowledge. For example, this teacher mentioned,

"CPD means keep up studying and learning...because at the college of education, a lecturer told me that knowledge has to be updated every three years. ... for me, CPD helps me to build up confidence in teaching because we all have to know the knowledge we grasp is the latest or the qualification is new. When parents or external people have questions, we can answer them with more confidence. Second, it's my personal interest. I like Chinese language subject, I will do the continuous studies in this subject and this helps to inspire me in teaching this subject." (Teacher K, male, School C, Individual interview, 21 September 2010)

Hence, apart from being an ongoing process for the purpose of fostering subject knowledge and pedagogical skills, CPD thus is a way to develop teachers' self-confidence in teaching.

CPD as a way for collective wisdom

CPD was regarded as a useful way for sharing and collaborating with each other so that teachers are able to learn from each other and prepare for the teaching in a better way. One of the CPD activities is collaborative lesson planning and teachers regarded it as an improvising process for teaching. One teacher elaborated that,

"... every week we have collaborative lesson planning, when you get a textbook, you will design the first lesson to the last lesson based on your own students' needs. That is just one's opinions. There are limitations to one's opinions. If you have two or three colleagues, we can exchange and share our experiences, what teaching methods can be used. We collect wisdom and it's usually more than your individual lesson preparation. I think it is very very useful to teaching." (Teacher E, female, School A, Individual interview, 25 August 2010)

CPD allows teachers to widen their horizons and understanding of the object from wider perspectives. The process of CPD can involve more than one teacher so that teachers can have more opportunities to discuss and share, and generate new pedagogical ideas. One teacher said that,

"...There occur many different methods, more exchanges with other schools, more sharing amongst teachers in the same district ... If I talk with the teachers in my school, the received information is less. But when you talk with those from other schools, you would have some new perspectives and you can share your experiences with them." (Teacher F, female, School A, Individual interview, 25 August 2010)

The line of collective wisdom is not only within one school but also expands to other schools in the community. In other words, sharing of teaching ideas and thoughts is not bounded to a school and it forms a sense of learning community across boundaries in the territory.

Traditional Versus Alternative Approaches to CPD

Traditional or alternative?

Neither traditional nor alternative type of CPD activities dominated teachers' choice of CPD activities. Both types of CPD activities were preferred by teachers (see Table 4.3.1a). Teachers participated in a broad range of CPD activities (see Table 4.3.1b). However, comparatively, some of the CPD activities were more welcome by teachers, such as higher academic study (\bar{x} =3.01, SD=0.77), offshore study visits (\bar{x} =2.84, SD=0.96), formal learning circles (\bar{x} =2.75, SD=0.72), local/overseas

conferences (\bar{x} =2.74, SD=0.69), peer class observation (\bar{x} =2.74, SD=0.71) and collaborative teaching (\bar{x} =2.74, SD=0.67). At the same time, the top five CPD activities that teacher participated most included: local/overseas conferences (\bar{x} =2.43, SD=0.71), higher academic study (\bar{x} =2.52, SD=1.21), peer class observation (\bar{x} =2.21, SD=0.57), formal learning/ study circles among colleagues (\bar{x} =2.15, SD=0.58) and school-based projects (\bar{x} =2.07, SD=0.73). As a whole, teachers recognized traditional and alternative types of CPD activities for their professional growth, however, there was no even distribution of teachers' preferences and participation of CPD activities, with a range of \bar{x} 1.99- \bar{x} 3.01 and \bar{x} 1.22- \bar{x} 2.52 respectively. Teachers' preference and participation pattern were quite similar to each other.

Amongst the top five types of most preferred and participated CPD activities, the activity of offshore study visits was the only exceptional case. Although teachers preferred this type of CPD activity, they participated the least (\bar{x} =1.80, SD=0.95). Further investigation of this case will be explored later in the following section.

Amongst the twelve types of CPD activities, some of them are traditional and formal while the others are alternative type of CPD activities that are more collaborative and informal in nature. Based on the classification of the CPD Document 2003 (ACTEQ, 2003), most of the top five CPD activities, including higher academic study, offshore study visits and local/overseas conferences, belong to structured learning mode while the others belong to other modes of CPD. Apart from that, it is noted that the activity of producing publications was consistently regarded as the most unfavourable and least participated type of CPD activity.

Table 4.3.1a: Overall teachers' preferences of CPD activities (N=87)

		not preferred		slightly preferred		preferred		most preferred			
I thinl	< is	%	N	%	N	%	N	%	N	\bar{x}	SD
1.1	Local/Overseas Conferences, Symposia, Workshops, Courses	2.3	2	33.3	29	52.9	46	11.5	10	2.74	0.69
1.2	Offshore study visits	12.6	11	17.2	15	43.7	38	26.4	23	2.84	0.96
1.3	Higher academic study	3.4	3	18.4	16	51.7	45	26.4	23	3.01	0.77
1.4	Peer class observation	3.4	3	31.0	27	54.0	47	11.5	10	2.74	0.71
1.5	Collaborative teaching	1.1	1	35.6	31	51.7	45	11.5	10	2.74	0.67
1.6	Formal learning/study circles among colleagues	4.6	4	27.6	24	56.3	49	11.5	10	2.75	0.72
1.7	Visits to other schools to share teaching experiences	2.3	2	29.9	26	54.0	47	13.8	12	2.79	0.70
1.8	Mentoring	6.9	6	51.7	45	35.6	31	5.7	5	2.40	0.71
1.9	School-based projects	3.4	3	41.4	36	46.0	40	9.2	8	2.61	0.71
1.10	Action study	11.5	10	40.2	35	40.2	35	8.0	7	2.45	0.80
1.11	Publications	33.3	29	40.2	35	20.7	18	5.7	5	1.99	0.88
1.12	Service to education and the community	6.9	6	36.8	32	40.2	35	16.1	14	2.66	0.83

Table 4.3.1b: Frequency of teacher participation in CPD activities (N=87)

I have participated in for during the		<50	hrs	51-10	00 hrs	101-1	50 hrs	>150) hrs		
year ((2002-05).	%	N	%	Ν	%	Ν	%	Ν	\bar{x}	SD
1.1	Local/Overseas Conferences, Symposia, Workshops, Courses	5.7	5	52.9	46	34.5	30	6.9	6	2.43	0.71
1.2	Offshore study visits	51.7	45	20.7	18	23.0	20	4.6	4	1.80	0.95
1.3	Higher academic study	33.3	29	8.0	7	32.2	28	26.4	23	2.52	1.21
1.4	Peer class observation	5.7	5	70.1	61	21.8	19	2.3	2	2.21	0.57
1.5	Collaborative teaching	25.3	22	55.2	48	16.1	14	3.4	3	1.98	0.75
1.6	Formal learning/study circles among colleagues	9.2	8	67.8	59	21.8	19	1.1	1	2.15	0.58
1.7	Visits to other schools to share teaching experiences	29.9	26	55.2	48	13.8	12	1.1	1	1.86	0.69
1.8	Mentoring	50.6	44	39.1	34	8.0	7	2.3	2	1.62	0.74
1.9	School-based projects	18.4	16	60.9	53	16.1	14	4.6	4	2.07	0.73
1.10	Action study	48.3	42	39.1	34	11.5	10	1.1	1	1.66	0.73
1.11	Publications	83.9	73	11.5	10	3.4	3	1.1	1	1.22	0.56
1.12	Service to education and the community	42.5	37	46.0	40	10.3	9	1.1	1	1.70	0.70

However, there is a discrepancy between the CPD Questionnaire Survey and current school practice. Teachers who took part in the survey expressed that they participated in some CPD activities that were not in the list of CPD activities provided in the CPD Questionnaire Survey. In other words, some CPD activities are out of the suggestion list of CPD activities in the CPD Document 2003 (ACTEQ, 2003). One teacher showed her interest in co-planning as a kind of CPD activity as "Co-planning allows us to review what's done and see what to improve next." (Teacher J, female, School A, Focus group interview, 13 July 2006). Another teacher explained why she participated in co-planning more, stating that: "It's a school measure. Every week we have co-planning that is timetabled in school." (Teacher F, female,

School A, Focus group interview, 13 July 2006). So the CPD Document 2003 (ACTEQ, 2003) seemingly neglected the current practice in schools and failed to give a complete list of CPD activities for teachers' reference in choosing their own CPD.

To understand more about teachers' perceptions of the most favourable and unfavourable CPD activities, a more detailed discussion about the comparisons between two school teachers' perceptions about their preference and participation in CPD activities is presented as follows.

Higher academic study

Higher academic study was the most favourable CPD activity and teachers participated in this CPD activity the most. Table 4.3.2a summarized the results of the preferences of CPD activities by the respondents. A total of 26.4% of teachers (N=23) regarded higher academic study as their most preferred type of CPD activity and spent more than 150 hours on it respectively. As shown in Table 4.3.2b, teachers of School A, School B and School C all ranked higher academic study as the top or second most favourable CPD activity. There were some reasons to explain why they preferred and participated in higher academic study as follows.

First, teachers consistently agreed that they preferred higher academic study for it helped them to secure their teaching positions due to higher demands from the society. One teacher said:

"This is the culture. Like commercial and financial industry, there is a requirement. The EDB [Education Bureau] demands teachers to have a higher degree." (Teacher J, female, School A, Focus group interview, 13 July 2006)

Second, higher academic study is linked with the government requirement on school performance.

One teacher said.

"Why higher? As the EMB [Education Bureau] asks the school to do so, the school then puts the teacher qualifications on the Internet. It doesn't matter whether studying for a higher degree is my favourite or not. Whether it's from the heart, I don't know." (Teacher J, female, School A, Focus group interview, 13 July 2006)

Her expression of thought showed that she felt helpless about the choice of CPD activity as this choice of higher academic study might not be her personal preference, instead it was pushed by the school and government policy measures. This implied that teachers' choice of CPD might be affected by the government policy and under pressure from the school and government.

Third, higher academic study would take more CPD hours than other kinds of CPD activities and thus their participation was higher in this CPD activity. One teacher said,

"We have also participated in conference or seminars quite a lot. ... for our school, ... such as in December we all participated in an international conference at CUHK [the Chinese University of Hong Kong], where we attended a lot of them. But why is higher academic study of higher rating of participation? Because it takes more time to study. Maybe 100 hours in a year. Surely, it's high there." (Teacher K, male, School C, Focus group interview, 11 September 2006)

Table 4.3.2a: Comparison amongst teachers' preferences of CPD activities in three schools

		School	A (N=35)	School B (N= 9)		School (C (N=43)
CPD A	CPD Activities		S.D.	Mean	S.D.	Mean	S.D.
1.1	Local/Overseas Conferences, Symposia, Workshops, Courses	2.43	0.61	2.56	0.53	3.02	0.67
1.2	Offshore study visits	2.40	0.91	2.33	1.12	3.30	0.74
1.3	Higher academic study	2.74	0.74	2.89	0.78	3.26	0.73
1.4	Peer class observation	2.57	0.74	2.89	0.78	2.84	0.65
1.5	Collaborative teaching	2.57	0.66	2.67	0.71	2.88	0.66
1.6	Formal learning/ study circles among colleagues	2.54	0.78	2.67	0.50	2.93	0.67
1.7	Visits to other schools to share teaching experiences	2.51	0.70	2.67	0.50	3.05	0.65
1.8	Mentoring	2.11	0.53	2.22	0.67	2.67	0.75
1.9	School-based projects	2.40	0.55	2.33	0.71	2.84	0.75
1.10	Action study	2.17	0.66	2.11	0.78	2.74	0.82
1.11	Publications	1.77	0.73	1.78	0.83	2.21	0.97
1.12	Service to education and the community	2.46	0.82	2.44	0.88	2.86	0.80

Table 4.3.2b: Comparison amongst teachers' CPD participation in CPD activities in three schools

		School A (N=35)		School	School B (N= 9)		C (N=43)
CPD /	CPD Activities		S.D.	Mean	S.D.	Mean	S.D.
1.1	Local/Overseas Conferences, Symposia, Workshops, Courses	2.34	0.84	2.56	0.53	2.47	0.63
1.2	Offshore study visits	1.11	0.53	1.44	0.88	2.44	0.80
1.3	Higher academic study	2.43	1.20	2.00	1.12	2.70	1.23
1.4	Peer class observation	2.26	0.66	2.00	0.50	2.21	0.51
1.5	Collaborative teaching	1.71	0.83	2.33	0.71	2.12	0.63
1.6	Formal learning/study circles among colleagues	2.00	0.64	2.33	0.71	2.23	0.48
1.7	Visits to other schools to share teaching experiences	1.37	0.49	2.22	0.44	2.19	0.63
1.8	Mentoring	1.51	0.82	1.22	0.44	1.79	0.68
1.9	School-based projects	1.94	0.73	2.00	0.71	2.19	0.73
1.10	Action study	1.54	0.66	1.56	0.73	1.77	0.78
1.11	Publications	1.11	0.40	1.11	0.33	1.33	0.68
1.12	Service to education and the community	1.54	0.74	1.78	0.83	1.81	0.63

Peer class observation

Peer class observation was ranked among the top five types of most preferred CPD activity (\bar{x} =2.74, SD=0.71). It is noted that peer class observation was always provided by the school as a part of appraisal system and it was compulsorily adopted in the schools involved in the study. There existed some differences between the perceptions of School C and the other schools upon "peer class observation." For School A, peer class observation was the second top most preferred CPD activity. School B teachers ranked it as number four while School C ranked it as the fifth most preferred CPD activity. Peer class observation was regarded as useful to teachers to improve teaching skills.

"Like offshore study visits, as a teacher, I know that when a colleague's teaching method is better than me, I will use her method in my teaching immediately. If it works for me, as Teacher Y mentioned, then I will immediately apply it to my teaching. And it's highly effective. Like studying is what you learn, and that becomes your knowledge. It's yours, not others.' (Teacher N, female, School C, Focus group interview, 11 September 2006)

This difference may be related to teachers' experiences in participating in this CPD activity. Teachers generally preferred this kind of CPD activity as it can provide them a chance to share and learn from others. Teachers from School A shared their experience in utilizing peer class observation and collaborative planning. One teacher elaborated how they used peer class observation for CPD, saying that,

"...If sit together to discuss teaching planning, try it out in the classroom together, with discussion together, from different perspectives and do observation aside. Observer can be clearer about the lesson, can give more opinions." (Teacher J, female, School A, Focus group interview, 13 July 2006)

Even there are some differences in the mode of CPD activities amongst schools, teachers in the study treasured this kind of CPD activity for enhancing their teaching skills.

Offshore study visits

Teachers' preference about offshore study visits is varied amongst different schools. A total of 26.4% of the respondent teachers (N=23) regarded "offshore study visits" as the most preferred activity, in which School B teachers ranked it as the fifth out of the twelve CPD activities and School A ranked it

 $(\bar{x}$ =2.40, SD=0.91) as one of the lowest five preferred CPD activities, however, School C teachers had a very different view. They ranked it as the most favourable CPD activity (\bar{x} =3.30, SD=0.74).

Meanwhile, teachers from School C expressed their high preference for offshore study visits. Their preference came from their past experience of getting involved in offshore study visits that were beneficial to them. This CPD activity gave teachers satisfactions and happiness in this kind of teacher exchange activity. One teacher from School C explained that,

"... Because my school is very good. We could have a lot of exchange activities. Some are related to universities, primary schools. For example, offshore school visits offered by my school are really good by our school. Last year we went to Guangzhou. We went to visit universities, secondary schools and primary schools. We could see different things..." (Teacher N, female, School C, Focus group interview, 11 September 2006)

Another teacher of School C expressed her disappointment in the cancellation of an offshore study visits due to Severe Acute Respiratory Syndrome (SARS) disease, saying that "I agree with what [good points] they said about offshore study visits. Like this year, suddenly there was no more offshore visit, I feel quite disappointed." (Teacher Y, female, School C, Focus group interview, 11 September 2006).

Offshore study visits is a favourable CPD activity to teachers as it could provide different kinds of activities such as school visits, peer class observation and sharing within one event. They preferred this CPD activity because it would be linked with teaching and learning and they could have sharing through interaction with other teachers. One School C teacher shared that,

"... As every year we have offshore study visits in our school, I went to Taiwan when it was my first year of teaching in this school. Last year we went to Guangzhou. Before that, teachers went to Shanghai. Through exchange of experience, teachers should share and learn different experiences outside Hong Kong. And it's also convenient to go travelling at the same time. ... We went to different schools to observe classes. For example, some more hot topics like life education. We went to mainland China to observe how they teach this topic. Because the more famous schools are our cluster schools and we form sister schools. Except peer observation of their teachers, we teachers have interaction amongst ourselves. The teachers of these schools also observed us. We can learn from each other. Mostly it's related to teaching and learning." (Teacher K, male, School C, Focus group interview, 11 September 2006)

So offshore study visits is not only a visit but also it involves other kinds of CPD activities at the same time. The activities are across-school and across-geographical location. For example, peer class observation was done across different classrooms of all participating schools in Hong Kong and mainland China.

Publications

Producing publications was a marginalized CPD activity for teachers. A total of 33.3% of teachers chose "publications" as "not preferred" CPD activity (\bar{x} =1.99, SD=0.88). All teachers in the interviews agreed that they did not prefer publications as their CPD activity. A total of 83.9% (N=73) of teachers spent less than 50 hours on producing publications, whilst they participated "publication" as a kind of CPD activity less often (\bar{x} =1.22, SD=0.70). Based on the qualitative responses in the focus group interviews, there are several reasons to understand why producing a publication was a marginalized CPD activity as follows.

First, doing publications was not related to school work and it was too time-consuming. They reasoned that they did not feel any need to do it and saw publications as a kind of scholarly work that was far away from teaching work. One teacher shared,

"... Because in teachers' academic studies...publication is not like a book, maybe like an essay assignment, publication is not necessary ...because in our school we do not require teachers to submit their homework like essays for publication. Teachers studying hard are their own achievement. It really takes time to make a publication. For time spent, it's reasonable to see the result of the survey here." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

Second, teachers found that producing publications would be a difficult task and it would require more skills to do so. One teacher said,

"... Production of publication, I think, is not easy. Other than teaching and learning, you need to do research for publication. If just for personal expression, this kind of publication may not be attractive enough for others to read ..." (Teacher K, male, School C, Focus group interview, 11 September 2006)

Even so, the School C teachers still had done some publications due to demands from their schools. One of them said,

"Sometimes we help the principal, not for personal purpose, sometimes maybe research or a book, we will play an assisting role. But not all teachers work on it. Teachers will do it in a group and work it out. Just like Teacher Y, she was highly involved." (Teacher K, male, School C, Focus group interview, 11 September 2006)

Another teacher elaborated that,

"Yes, we did a lot of this kind of work 2-3 years ago. In 2006, because we had exchange activities with teachers from Shanghai, China, we had some sharing seminars and we prepared the publications. The teachers from other schools also took a lot of publications to visit our school and share with us. We also shared ours with them." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

Apart from the above, teachers also considered the impact of CPD activities in choosing CPD activities. Some teachers regarded that doing a publication has less impact on student learning and they preferred to have a direct interaction with students for helping them to learn.

"...I prefer to use more time on students, publications ... I did that for the school...that is not what I like, the impact is not great, however for me, I like teaching students, or directly teach them how to learn, the sense of satisfaction is greater and more direct. When the student can do that with progress, compared with using an hour to look at the computer, the statistics analysis, or to see what the conclusion is... more statistical. I am an artistic person, I like to face people, or read books, or write a journal after reading, but if you do some reports, they are useful and important, you can analyse the weaknesses of the students, but comparatively I am not interested in that ..." (Teacher K, male, School C, Individual interview, 21 September 2010)

However, in spite of the above, the value of producing publications was still recognized by teachers. One teacher said,

"But for publications, we could learn many things. But it takes much time to deal with for publication. Personally, I don't have much time to publish. It's not our strength to write things." (Teacher N, female, School C, Focus group interview, 11 September 2006)

This reflects that teachers felt that their role was to teach instead of to research while they regarded that they were not professional enough to do research.

What are (not) Effective CPD Activities to Teachers?

What are effective? What are not?

As shown in the survey, peer class observation (\bar{x} =3.17, SD=0.61) was consistently regarded by the teachers of the three schools as the most effective CPD activity, while higher academic study (\bar{x} =3.09, SD=0.73) as well as collaborative teaching (\bar{x} =2.95, SD=0.68) and formal learning/ study circles among colleagues (\bar{x} =2.95, SD=0.73) are the second and the third most effective CPD activities respectively (see Table 4.4.1a). This result was in line with the findings in teachers' preferences and participation. On the other hand, a substantial minority of teachers, i.e. 25.3% of the teachers (N=22), regarded production of "publications" as the least slightly or not effective CPD activity, whilst "service to education and the community" was the second least effective CPD activity, with a share of 19.5% (N=17) (see Table 4.4.1b).

For understanding more thoroughly about teachers' perceptions of effective CPD activities, some common features are generated and presented in the following sections.

Table 4.4.1a: Overall teachers' perceived effectiveness of CPD activities (N=87)

		slight no effec	t	quit effect		effec	tive	mos effect		\bar{x}	SD
I think	is /are for my CPD.	%	N	%	N	%	N	%	N		
1.1	Local/Overseas Conferences, Symposia, Workshops, Courses	2.3	2	20.7	18	63.2	55	13.8	12	2.89	0.66
1.2	Offshore study visits	6.9	6	25.3	22	56.3	49	11.5	10	2.72	0.76
1.3	Higher academic study	2.3	2	14.9	13	54.0	47	28.7	25	3.09	0.73
1.4	Peer class observation	0.0	0	11.5	10	59.8	52	28.7	25	3.17	0.61
1.5	Collaborative teaching	1.1	1	21.8	19	57.5	50	19.5	17	2.95	0.68
1.6	Formal learning/study circles among colleagues	5.7	5	11.5	10	64.5	56	18.4	16	2.95	0.73
1.7	Visits to other schools to share teaching experiences	4.6	4	23.0	20	60.9	53	11.5	10	2.79	0.70
1.8	Mentoring	6.9	6	31.0	27	54.0	47	8.0	7	2.63	0.73
1.9	School-based projects	1.1	1	23.0	20	63.2	55	12.6	11	2.87	0.63
1.10	Action study	6.9	6	26.4	23	56.3	49	10.3	9	2.70	0.75
1.11	Publications	25.3	22	33.3	29	35.6	31	5.7	5	2.22	0.90
1.12	Service to education and the community	19.5	17	29.9	26	42.5	37	8.0	7	2.39	0.89

Table 4.4.1b: Comparison among teachers' perceptions of effectiveness of CPD activities in the three schools

		School A	(N=35)	School B (N= 9)		School (C (N=43)	
CPD	Activities	Mean	S.D.	Mean	Mean	S.D.	Mean	
1.1	Local/Overseas							
	Conferences, Symposia,	2.71	0.52	2.56	0.53	3.09	0.72	
	Workshops, Courses							
1.2	Offshore study visits	2.37	0.65	2.44	0.88	3.07	0.67	
1.3	Higher academic study	2.91	0.82	2.89	0.60	3.28	0.63	
1.4	Peer class observation	3.03	0.71	3.22	0.67	3.28	0.50	
1.5	Collaborative teaching	2.63	0.73	3.11	0.33	3.19	0.59	
1.6	Formal learning/study	2.69	0.87	3.00	0.71	3.16	0.53	
	circles among colleagues	2.09	0.67	3.00	0.71	3.10	0.55	
1.7	Visits to other schools to	2.60	0.70	2.56	0.88	3.00	0.62	
	share teaching experiences	2.00	0.70	2.50	0.88	3.00	0.02	
1.8	Mentoring	2.49	0.66	2.11	0.60	2.86	0.74	
1.9	School-based projects	2.77	0.49	2.67	0.71	3.00	0.69	
1.10	Action study	2.57	0.66	2.33	0.71	2.88	0.79	
1.11	Publications	1.80	0.76	2.00	0.50	2.60	0.90	
1.12	Service to education and the community	2.11	0.87	2.22	0.83	2.65	0.87	

Job-related school works

In this study, for the teachers, effective CPD activities were referred to those job-related or job-embedded activities in daily school works. Peer class observation was regarded as one of the most effective CPD activities. The teachers of the three schools perceived peer class observation (\bar{x} =3.17, SD=0.61) as the most effective CPD activity, whereas all the three schools consistently perceived it as the most effective activity. Besides, it was obviously noted that no teachers regarded peer class observation as slightly or not effective CPD activity. Teachers expressed the reason why peer class observation was the most effective CPD activity because it was institutionalized as part of daily teaching work and it was one part of appraisal system of the school. One teacher said,

"[Peer class observation is] a school policy [that] has been arranged. It's not so far away from teaching." (Teacher J, female, School A, Focus group interview, 14 July 2006)

Indeed, teachers' choice of effective CPD activities depended on job duties. One of the teachers expressed that,

"For me, WEBSAMS [Web-based School Administration Management System], it's related to my current duty in the school. Different needs... it's difficult for me to choose one single most

effective CPD activity. Just like what he mentioned, it is beneficial to his subject knowledge. When focusing teaching skills, I'd say peer observation is the most effective one. It should be chosen according to personal needs." (Teacher N, female, School C, Focus group interview, 11 September 2006)

Her choice of effective CPD activities depended on her administrative role in the school system and her teaching role in the classroom. Thus she would choose different kinds of CPD activities to fulfil her job requirements, including skills in using the administrative system and teaching skills in subject teaching. Another teacher, who was a curriculum coordinator, attended the conferences or workshops for her job duty as a curriculum coordinator. She said that,

"I'd choose local or overseas conference or workshops because it gives me deeper impression and it'll naturally bring me some new stimulus and I can share with my colleagues within the subject." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

On the contrary, teachers in the questionnaire survey consistently regarded production of publications as the least effective CPD activity. A substantial minority of the participating teachers, i.e. 25.3% (N=22), regarded production of publications as the least slightly or not effective CPD activity. Teachers in the focus group interviews consistently regarded production of publications as 'extra' demanding work to them and they did not have confidence in doing this type of work. Some of them also did not feel any need to do so for their school works. Here are some of the examples of what they talked about publications as the least effective CPD activity.

"Not my job...it's extra. Only those with abilities can do it... Teaching strategies to be recommended to other schools, and publications of that aspect need others' recognition. It needs persuasion power." (Teacher F, female, School A, Focus group interview, 13 July 2006)

"Because of my qualification, I have no ability to do so." (Teacher E, female, School A, Focus group interview, 13 July 2006)

"Publication, I think, if we publish something, and for us, its effectiveness is low. There have been a lot of professional publications in the market. We can get easy access to them. I feel that they are better than what we write. If we want to share some good practice with colleagues, we can just simply write down some lesson observation notes and hence we can share with other colleagues." (Teacher K, male, School C, Focus group interview, 11 September 2006)

Another teacher mentioned that doing a publication involved time and efforts and it is not her preference due to time limitation. She said that,

"...I prefer something that is more active...publishing a research study, when doing assignment, I will read more articles. But in my usual time, very frankly speaking, I will not read an article. I will choose a TV programme...it is audio with images, instead of texts. .. if that is about mathematical domains, then I must read a book, I cannot watch a TV programme for the information. So I think it really depends on what I need and make a choice. ... I don't resist reading a research... some research is very brilliant...that may contain what I need. It takes so much time to complete. When doing my thesis, I used a lot of time and I also want someone who will read my thesis...because it takes a lot of efforts..." (Teacher N, female, School C, Individual interview, 21 September 2010)

Meanwhile, interestingly, teachers mentioned that doing a publication is not an official work requested by the government so they did not regard it as an important thing. They also pointed out that the culture of doing a publication is not common in Hong Kong teaching context. The following teacher gave a detailed illustration that,

"We ... do not need to achieve that level... because Hong Kong does not have such a culture...because in mainland China... a new teacher, or a school, there are some requirements, every year each teacher has to submit a publication for the appraisal. This is what I heard in Shanghai. When a new teacher starts to work in a school, the school will not accept the new teacher immediately. They need to take the license test. This test requires the school teachers to test him/her. What is tested include his/her teaching performance, calligraphy, classroom management, publications, so in mainland China, even just a minor area about reading aloud can also be a publication. Of course their writing is very great, they can write some thousands of words. They need to have publications and then get a pass and take the professional qualification. But in Hong Kong, we don't have that ... even we have Chief Executive Excellent Teaching Award, that is just about presenting what has been done in the school and then you can be recognized. ...in Hong Kong we possibly have so many teachers and in China maybe there are less. But in such a small area like Hong Kong, there are so many teachers. The problem about the reduction in the number of classes is not yet solved. The language benchmarking results are not yet up to estimated standards. It is very difficult to promote teacher professionalism or taking a license test, no one is brave to raise this issue or it takes a long way to go. So that is a limitation in promoting producing publications. But for me, I still encourage that. ...if we have an innovation in English phonics teaching method, how effective is it? Then it's difficult to say, quite good. or it's cancelled as it's not good. We must need evidence; we need to gather the evidence. You need a pre-test and then gather some data through survey questionnaire, from parents or the kids, or some interviews, in order to get more data or refer to the product or academic results..." (Teacher Y, School C, Individual interview, 21 September 2010)

The above finding tended to imply teachers' confidence in their abilities in doing publications seemingly would limit their choice of CPD activities rather than viewing CPD for the purpose of learning and development. Teachers in this study in general took an appreciation attitude towards production of a

publication but they lacked interest in this CPD activity due to time limit and number of efforts involved and did not feel the need of doing so.

Peer learning opportunities

Another feature of teachers' effective CPD activities is that those activities can provide them peer learning opportunities through sharing. Peer class observation was regarded as the most effective CPD activity as teachers regarded that peer class observation can give them chances to learn from each other and they gain experiences through peer class observation in the real classroom. One teacher said,

"...there are many things that you can learn by observation. No matter what your teaching flow is, how to manage a class, a wider perspective or in details, you can gain something by teacher observation. After the comments of the observation ... as a normal subject panel, a grade coordinator observes teachers or subject panels observe the grade level teachers. I think this is an opportunity for exchanging ideas...and after observation, what do you think of my lesson? and then I can have a chance to explain about my lesson design. Or if you really teach the next lesson, I can know what I can do better through sharing. During the sharing... two people, or one to three to four people, how I can perfect the lesson, I think it is necessary for teachers' professional learning." (Teacher Y, female, School C, Individual interview, 21 September 2010)

Another teacher had a similar view upon peer lesson observation. She shared her experience about peer lesson observation, saying that:

"Like a real example, once when I went to a school for lesson observation, ...when the student answers a question, the teacher gives one sticker or two stickers to that student, then the students can get a gift after collecting more stickers. What's special there? There is a record on the blackboard, when the student answered a question and the teacher praised him/her, that student automatically went to the blackboard and put a tick on the record... and then the second student, the third student did the same, it was very smooth, they would not break the classroom order... then it is very clear the extent the students participated in the lesson and I could find out who did not participate in the lesson." (Teacher E, female, School A, Individual interview, 25 August 2010)

Teachers can share and exchange more ideas about learning and teaching through peer lesson observation. During the process of sharing and exchanging ideas, sometimes it helps teachers to inspire ideas and get some new learning. However, it is noted that teachers in this study mostly mentioned that they could learn by peer lesson observation which is followed by a post-observation meeting that allows teachers to discuss about the lesson design, students' learning performance and pedagogical skills and techniques.

Apart from peer lesson observation, offshore study visits and visits to other schools are also more effective CPD activities. Teachers in this study, especially teachers from School C, got more experiences in offshore study visits and were enthusiastic in taking part in this kind of CPD activity. Based on teachers' CPD experiences in this study, these two types of CPD activities are always associated with peer lesson observation. The meaning of peer learning is not limited to teachers within the same school. Instead, it is extended to other teachers of the other schools in another state or another country. These CPD activities allow teachers to widen their perspectives and horizons in seeking the best teaching opportunities. There is a deeper meaning of offshore study visits and school visits to other schools. These two types of CPD activities allow more ways to let teachers learn and gain more professional knowledge and skills through interacting with the teachers of another school and/or another district. One teacher illustrated that,

"...as local teaching is similar ... I had two chances to go to Guangzhou for lesson observation at some key schools. Why can they do so well in phonics teaching? Guangzhou people speak Cantonese and we are the same. But can they do better? So there is a need to understand more. ... After the visit, we know that every day they have a rich language environment at schools. They use mandarin in thinking, so they can use mandarin to do writing. How can we Hong Kong schools be the same in making a rich language environment? ... the style is very different, so the school's display can be interesting in a precise way, when you are in another environment, you are relaxed to see the case. When you observe your colleagues, sometimes posing pressure to them, although perhaps not... but when you go to other schools, you can see more and observe more interesting things... because we come from a totally different environment, including the school situation, you can see how the others work, that is pretty good." (Teacher K, male, School C, Individual interview, 21 September 2010)

He continued,

"...after observation, we questioned the teachers about the observed lesson. Because we found that the students are very fluent in speaking mandarin at Grade 1 and Grade 2... we then asked the teachers what teaching materials they used, if they tailor-made their own materials and so on. That's what we can learn from them... if you follow their way for one to two years, just teaching phonics methods for the first one or two months, the students could grasp the phonics methods..." (Teacher K, male, School C, Individual interview, 21 September 2010)

Another teacher shared that peer lesson observation helps teachers to reflect and learn from others. She said that,

"[during the overseas trip]... lesson observation ... I jotted down some notes... that school we visited provided us a time for exchange ideas, ...the teachers could talk about the observed lessons and shared their ideas. ... there was group discussion. No matter what we appreciated

them, or wanted to understand the rationale behind that observed lesson, we could enquire or show our appreciation to them. During the exchange process, this is a good learning process. Through the observation, as followed by the discussion of the observation, eventually it gives a chance for personal teaching reflections and the most important thing is to reflect on myself about what is inadequate, or what is needed for enrichment. That can be applied in my lessons. Although I don't know if it can work or not, at least there is something that I can take away. ...if there is something not so good in the observed lesson ... that also can be a reflection to us." (Teacher N, female, School C, Individual interview, 21 September 2010)

She also distinguished the difference in the teaching context of the visiting place and Hong Kong and such a difference inspired her some teaching ideas. She said that,

"... it's good to go overseas exchange...I can see the other countries, like Japan or Singapore, I think I go out of Hong Kong ... when observing others' teaching... that is dynamic ...I think I cannot see that in Hong Kong. When I see how they teach, that is helpful to stimulate me in teaching the similar topic... like in mainland China, their students are very good at intonation...that is about a kind of reflection, no matter good or bad, for me, personally, that is a reflection or inspiration. ... I feel lesson observation outside school is good ...that is not a kind of wasting time and efforts. I don't feel so. Because the school itself is very good, they help arrange the activity within school hours...that is reasonable. and that is for you to learn." (Teacher N, female, School C, Individual interview, 21 September 2010)

Another teacher shared about her overseas study visit. She expressed that such a visit was a real learning experience for her. She expressed that,

"... we went to Shanghai, or sometimes like English subject, the principal led the colleagues to Singapore, they visited schools and saw the learning environments, we can learn, that is good to us. There was some lesson observation. Teachers prepared a lesson plan and you could go into the classroom and observe. After observation, you could exchange ideas with teachers or the principal. .. that is a professional dialogue. But sometimes we do not have so many people to go together. Sometimes maybe just one leading a small group or only one to two colleagues, when they come back from the visit, they will share with other colleagues, like the teaching materials that they took from the visit or bought there, or apply the new elements into the lesson. I think sharing the experience is very useful... we learn the real lesson experience..." (Teacher Y, female, School C, Individual interview, 21 September 2010)

From the above example, the interaction of teachers through offshore study visits is not limited to discussion of teaching and learning of a lesson in the peer lesson observation. More importantly, teachers can have a deeper understanding of the local teaching context, as well as the knowing of the teaching materials. Improving learning and teaching is no longer restricted to the local region; instead, it can be extended to another region.

Moreover, teachers regarded hands-on CPD experiences are more effective than seminars. The hands-on experiences are regarded as a means to deepen teachers' understanding of the topic and helps teachers to reflect on their own practice. One teacher elaborated that,

"... the workshops held by the university... some great scholars gave a talk, that is usually from a wider perspective, then the participants will go to different sessions according to one's preference about the topics. ...each session ... there are professionals who talk about a specific topic. In the workshop, it's not only listening but also having a chance to have hands-on experience.... It is not only theoretical but also practical. Hands-on experiences allows for deeper memory, however, if it's just sitting there to listen, without anything to do, I think the effectiveness is lower, that means, with activities, no matter it is in form of visit or not, I think this is important, it's better than simply listening, actually with simple discussion, two persons in a group, actually it's helping to foster your learning. ... deepen learning and ... allows for a chance for reflection." (Teacher N, female, School C, Individual interview, 21 September 2010)

Immediate effectiveness on teaching and learning

Teachers think that effective CPD activities also mean those activities that can bring immediate effectiveness on learning and teaching. In other words, those activities are valued for bringing observed effects on teaching in a short-term. One teacher, when asked about what effective CPD activities she would choose, she expressed,

"It depends on immediate effectiveness. For the subjects like mathematics, we learn the key concepts or knowledge. It is not only on the level of knowledge; for peer observation, we not only learn at the level of knowledge, it includes the arrangement of lesson activities, instead of classroom routine; immediately learnt and they are applied to own teaching and see whether it can work or not." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

Teachers expected CPD activities to be directly linked with learning and teaching. They wanted to get practical solution to the problems that they might encounter in the process of learning and teaching by attending the CPD activities. The following teacher shared her experience, saying that:

"Effective ...means you can apply to teaching and learning, with immediate help to your teaching ... workshops, I participated in the one which was about teaching pedagogy, that is about teaching Chinese phonics. The contents of the workshop include the teaching sequence of Chinese phonics, illustrations of the difference in the teaching pedagogy between primary and secondary schools, and sharing of the foci of primary teaching pedagogy, like how to teach students in a simple and practical way." (Teacher F, female, School A, Individual interview, 25 August 2010)

Some teachers regarded effective CPD activities should give them updated and useful teaching ideas that they can bring them to the real classrooms. One teacher shared that:

"Like in Math, there are some hot topics, some organizations such as Professional Teachers' Union, are very quick to hold some workshops, such as Sudoku, that is quite popular, they quickly held some workshops. Generally they are effective. We can immediately take the ideas back to school and the students can play with those ideas, such as some inter-school activities like Mathematics competition. Some workshops were held to introduce the contents of the competition. It is really good because there are some mathematical questions and we can share with other colleagues at school and then they can teach them to their students at a suitable time. That is a more effective CPD activity." (Teacher J, female, School A, Individual interview, 15 August 2010)

Effective CPD activities are thus expected to be directly and immediately helpful to teachers.

Any Relationship between Demographic Characteristics and Teachers' Perceptions of CPD Activities?

ANOVA was used to explore if there existed any relationship between teachers' perceptions of CPD activities and demographic characteristics. It was found that age and years of teaching experiences are related to teachers' preference and their perceptions of the effectiveness of CPD activities while school factor is found to be the most influential factor that is related to teachers' perceptions of CPD activities, in terms of preference, participation and perceived effectiveness. This is further illustrated in details as follows:

Age and teachers' perceptions of CPD activities

Compared with the other two age groups (i.e. 31-40 and 41 or above), the 30 years old or less age group had more positive attitudes towards their preference, participation and perceived effectiveness of CPD activities on average. There were significant differences between age and teacher preference (F=9.344) and teacher perceived effectiveness (F=6.333), where p<0.05. However, no significant difference between age and teacher participation was found.

Compared with the other two age groups (i.e. 31-40 and 41 or above), The 30 years old or less age group had more positive attitudes towards their preference, participation and perceived effectiveness

of CPD activities on average. There were significant differences between age and teacher preference (F=9.344) and teacher perceived effectiveness (F=6.333), where p<0.05. However, no significant difference between age and teacher participation was found.

Table 4.5.1a: Overall mean scores of the indicators of teacher preference, participation and perceived effectiveness of CPD activities by age

Age	-	Preference	Participation	Perceived Effectiveness
30 or less	Mean	2.82	2.00	2.92
N=54	S.D.	0.51	0.46	0.49
31-40	Mean	2.34	1.87	2.55
N=23	S.D.	0.44	0.36	0.47
41 or above	Mean	2.38	1.73	2.55
N=10	S.D.	0.42	0.21	0.44
Total	Mean	2.64	1.93	2.78
N=87	S.D.	0.53	0.42	0.50

(To the nearest 2 d.p.)

Table 4.5.1b: ANOVA on overall mean scores of the indicators of teacher preference, participation and perceived effectiveness by age

Indicators		Sum of Squares	df	Mean Square	F	Sig.
Preference	Between Groups	4.35	2	2.18	9.34	0.00
	Within Groups	19.55	84	0.23		
	Total	23.90	86			
Participation	Between Groups	0.79	2	0.40	2.29	0.11
	Within Groups	14.52	84	0.17		
	Total	15.31	86			
Perceived Effectiveness	Between Groups	2.86	2	1.43	6.33	0.00
	Within Groups	18.99	84	0.23		
	Total	21.85	86			

(To the nearest 2 d.p.)

Years of teaching experience and teachers' perceptions of CPD activities

Teachers with 0-5 years of teaching experience also showed more favourable responses to their preference, participation and perceptions of the effectiveness of CPD activities. By contrast, more experienced teachers had less positive views (see Table 4.5.2a). In particular, teachers with 11 or above years of teaching experience had less positive responses. There existed significant differences between years of teaching experience and teacher preference of CPD activities (F=4.800) and teacher perceptions of the effectiveness of CPD activities (F=3.512), where p<0.05 (see Table 4.5.2b). No significant difference was revealed in the relationship between teacher participation of CPD activities and years of teaching experience. It is remarkably noted that these findings are consistent with those of age and teacher participation, in which significant differences were found in the relationships between age and years of teaching experience, and teacher preference and teachers' perceptions of the effectiveness of CPD activities respectively.

Table 4.5.2a: Overall mean scores of the indicators of teacher preference, participation and perceived effectiveness of CPD activities by years of teaching experience

Teaching Expe	eriences	Preference	Participation	Perceived Effectiveness
0-5 yrs	Mean	2.79	1.99	2.88
(N=37)	S.D.	0.47	0.46	0.50
6-10 yrs	Mean	2.64	1.96	2.83
(N=31)	S.D.	0.57	0.42	0.49
11 yrs or above	Mean	2.35	1.79	2.52
(N=19)	S.D.	0.45	0.31	0.47
Total	Mean	2.64	1.93	2.78
(N=87)	S.D.	0.53	0.42	0.50

(To the nearest 2 d.p.)

Table 4.5.2.b: ANOVA on overall mean scores of the indicators of teacher preference, participation and perceived effectiveness by years of teaching experience

		Sum of Squares	df	Mean Square	F	Sig.
Preference	Between Groups	2.45	2	1.23	4.80	.01
	Within Groups	21.45	84	0.26		
	Total	23.90	86			
Participation	Between Groups	0.55	2	0.28	1.57	.21
	Within Groups	14.76	84	0.18		
	Total	15.31	86			
Perceived Effectiveness	Between Groups	1.69	2	0.84	3.51	.03
	Within Groups	20.17	84	0.24		
	Total	21.85	86			

(To the nearest 2 d.p.)

School and teachers' perceptions of CPD activities

School A teachers had more favourable responses to teacher preference and participation of CPD activities. School C teachers had more favourable attitudes towards perceived effectiveness of CPD activities. School C teachers had less favourable responses to teacher preference, participation and perceived effectiveness of CPD activities. Significant differences were discovered in the relationship between school and teacher preference (F=9.100), participation (F=7.288) and perceived effectiveness (F=9.794) of CPD activities, where p<0.05. This finding indicated that school differences may have stronger influence than other demographics over teacher preference, participation and their perceptions of the effectiveness of CPD activities. Meanwhile, it implies that different schools have different impacts upon teachers' CPD. The difference in these schools may be related to the school cultures and school CPD policies and administration. Further study can be conducted to further examine how schools affect teachers' CPD.

Table 4.5.3a: Overall mean scores of the indicators of teacher preference, participation and perceived effectiveness of CPD activities by school

SCHOOL		Preference	Participation	Perceived Effectiveness
School A	Mean	2.87	2.10	2.98
(N=35)	S.D.	0.54	0.42	0.48
School B	Mean	2.81	2.06	3.07
(N=9)	S.D.	0.57	0.23	0.53
School C	Mean	2.42	1.77	2.56
(N=43)	S.D.	0.41	0.39	0.43
Total	Mean	2.64	1.93	2.78
(N=87)	S.D.	0.53	0.42	0.50

(To the nearest 2 d.p.)

Table 4.5.3.b: ANOVA on overall mean scores of the indicators of teacher preference, participation and perceived effectiveness by school

ween Groups nin Groups	4.26 19.65	2.00 84.00	2.13	9.10	0.00
	19.65	84.00			
al.		1	0.23		
XI	23.90	86.00			
ween Groups	2.26	2.00	1.13	7.29	0.00
nin Groups	13.04	84.00	0.16		
al	15.31	86.00			
ween Groups	4.13	2.00	2.07	9.79	0.00
nin Groups	17.72	84.00	0.21		
al	21.85	86.00			
ה ה	in Groups veen Groups in Groups	in Groups 13.04 I 15.31 veen Groups 4.13 in Groups 17.72	in Groups 13.04 84.00 I 15.31 86.00 I 2.00 In Groups 17.72 84.00	in Groups 13.04 84.00 0.16 I 15.31 86.00 veen Groups 4.13 2.00 2.07 in Groups 17.72 84.00 0.21	in Groups 13.04 84.00 0.16 I 15.31 86.00 veen Groups 4.13 2.00 2.07 9.79 in Groups 17.72 84.00 0.21

(To the nearest 2 d.p.)

Summary

This chapter has presented the teachers' perceptions and experiences of CPD activities with the use of multi-methods approach. The first section is about the characteristics of the survey sample of

teachers (i.e. gender, age, years of teaching experience, ranking, the highest academic qualification and the belonging school) as well as the teachers involved in focus group interviews and individual interviews. Teachers in this study regarded certain types of CPD activities were beneficial to them and more effective. They held positive attitudes towards CPD activities as they regarded CPD activities were good to teachers, schools and students. However, there seems to be a discrepancy between teachers' perceptions of their CPD preferences and participation of CPD activities and the government policy. Teachers generally did not welcome publications and the value of publications is marginalized.

As a whole, the findings of the quantitative and qualitative responses were consistent and they help to gain a deeper understanding about teachers' preferences, participation and perceived effectiveness of CPD activities. Chapter Five will further discuss the key research findings in relation to teachers' perceptions of professional development needs of CPD.

CHAPTER FIVE

WHAT ARE TEACHERS' CPD NEEDS?

Introduction

Chapter Four reported the findings about teachers' perceptions of CPD activities. This Chapter presents the findings of teachers' perceptions of their professional development needs. The CPD Questionnaire Survey and focus group interviews and individual interviews were utilized to explore the second research question of this study "What are teachers' perceptions of their professional needs?". Teachers' perceptions are first compared with the Teacher Competencies Framework (TCF) in the CPD Document 2003 (ACTEQ, 2003). Teachers' identified CPD needs are then presented with reference to the four key CPD domains, namely, Student Development, Teaching and Learning, School Development and Professional Relationships and Services.

Teacher Competencies Framework (TCF): Teachers' Perceptions and the CPD Document 2003 (ACTEQ, 2003)

Principal Component Analysis (PCA) of teachers' perceptions of professional development needs with reference to Teacher Competencies Framework (TCF) in the CPD Document 2003

In creating the whole framework for analysing teachers' perceptions of their professional needs, Principal Component Analysis (PCA), was purposefully used in the generation of key CPD domains in order to compare them with the CPD Domains as proposed in the Teacher Competencies Framework (TCF) in the CPD Document 2003 (ACTEQ) as the TCF has not been evidently tested for their actual existence. PCA was conducted on all 46 items of CPD Strands in the CPQ Questionnaire Survey that used the Teacher Competencies Framework (TCF) of the CPD Document 2003 (ACTEQ, 2003) (see Appendix I: An Overview of Generic Teacher Competencies Framework) in order to discover if there is any discrepancy between teachers' perceptions and the policy document.

In the PCA, coefficients with absolute values below 0.4 have been suppressed. The scree test was also conducted and four factors were retained. Figure 5.1.1 is the scree test for the principal

components factor analysis. Table 5.1.1 lists the four factors that were retained with the percent of variance accounted for by each factor as well as the cumulative percent of variance accounted or by each factor.

After determining the number of factors to retain the next task is to determine the variables that load on each component. To ensure that the loadings are 'practically significant' (Stevens, 1996), only those with 0.4 or higher loadings are considered as factors. Table 5.1.2 contains the rotated component matrix that shows the loadings for each factor. Some items loaded on more than one factor. The reliability for each factor was examined to decide the factor with which the item should be included. The goal was to maintain high reliability. So, the item was included with the factor in which it had the greatest impact, either negative or positive, on reliability.

Figure 5.1.1: Scree plot from Principal Components Factor Analysis

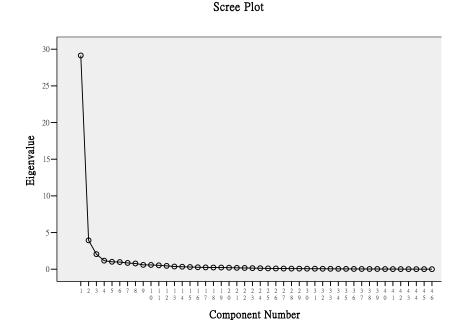


Table 5.1.1: Components Retained with Eigenvalues and Variance

	Initial Eigenvalues					
Factors	Total	% of Variance	Cumulative %			
1	29.15	63.37	63.37			
2	3.94	8.56	71.93			
3	2.06	4.47	76.39			
4	1.17	2.53	78.93			

(To the nearest 2 d.p.)

Extraction Method: Principal Component Analysis.

Comparison between teachers' perceptions and the Teacher Competencies Framework (TCF) in the CPD Document 2003 (ACTEQ, 2003)

Table 5.1.2 showed a list of the factors, including the name of the factor the simplified means of each factor, and the items that load on each factor. It is interestingly found that all factors extracted were exactly the same as the four CPD domains in the Teacher Competencies Framework (TCF) as proposed in the CPD Document 2003 (ACTEQ, 2003). So there were no changes to the names of the factors.

Factor One includes thirteen items from teaching and learning domain. Examining the items loaded on this factor resulted in the factor being named: Teaching and Learning. The reliability of this new variable is 0.95.

Factor Two includes thirteen items from school development domain. Examining the items loaded on this factor resulted in the factor being named: School Development. The reliability of this new variable is 0.96.

Factor Three includes ten items from student development domain. Examining the items loaded on this factor resulted in the factor being named: Student Development. The reliability of this new variable is 0.95.

Factor Four includes ten items from professional relationships and services domain. Examining the items loaded on this factor resulted in the factor being named: Professional Relationships and Services. The reliability of this new variable is 0.95.

With reference to the results of PCA as above, it showed that the TCF in the government policy is generally accepted and its value is recognized by the teachers for their future CPD in different domains, namely, Teaching and Learning, School Development, Student Development and Professional Relationships and Services.

Table 5.1.2: Rotated Component Matrix(a): Factoring on Items for Teachers' Perceived Needs in **CPD Strands**

		C	Component	<u> </u>	
CPD Strands	1	2	3	4	5
3.1 knowledge and application of teaching strategies and skills	0.87				
2.1 command and application of pedagogical content knowledge	0.84				
1.2 updating of subject matter knowledge and search for new subject					
knowledge	0.83				
4.1 student assessment methods and procedures	0.82				
2.3 updating and sharing of pedagogical content knowledge	0.82				
2.2 curriculum design, implementation and improvement	0.82				
4.3 evaluation and review of teaching and learning programmes	0.82				
4.2 use of student assessment results	0.81				
3.3 motivation of student learning through different teaching methods and multi-					
media	0.79				
1.3 sharing and exchange of subject teaching practice	0.78	,			
3.2 language proficiency	0.71				
3.4 research and dissemination on teaching strategies and skills	0.70				
1.1 command of subject matter knowledge	0.68	_			
10.2 implementation of school policies, procedures and practices		0.77			
12.2 responsiveness to societal changes and issues related to social values		0.75			
11.4 building trust with parents for further school development		0.74	0.42		
12.1 awareness and knowledge of societal changes in relation to their impact		0.74			
on school		0.74			
10.3 formulation of school policies, review of procedures and practices for		0.74			
continuous school development		0.74 0.71			
11.3 involvement in parent-related activities 11.2 communication with parents		-	0.44		
11.1 understanding students' family backgrounds		0.68 0.68	0.44		
10.1 understanding school goals and policies		0.67	0.42		
9.4 contribution to reviewing the school vision and mission, as well as		0.07			
promoting the school culture and school image		0.66			
9.1 adaptation to the school vision and mission, culture and ethos		0.63		0.44	
9.2 actualization of school beliefs, vision and mission		0.62		0.50	
9.3 cultivation of a caring and inviting school climate		0.62			
7.1 providing pastoral care for students			0.80		
5.3 collegial collaboration in identifying and supporting students' diverse needs			0.74		
8.3 whole person development of students			0.74		
7.2 collegial collaboration in providing pastoral care			0.73		
6.2 building trust and rapport with students			0.73		
6.1 awareness of the importance of establishing rapport with students			0.72		
5.1 understanding students' diverse needs			0.72		
5.2 identifying and supporting students' diverse needs			0.69		
8.2 planning and organization			0.64		
8.1 participation and implementation	0.41		0.63		
16.2 participation in education-related community services and voluntary work				0.72	
14.2 contributions to teachers' professional development				0.68	
14.1 sharing of knowledge and good practices with others				0.68	
15.3 contributions to policies related to education	0.40	0.45		0.66	
13.3 working relationships within formal structures	0.43	0.44		0.65	
15.2 responsiveness to policies related to education	0.44	0.44		0.64	
13.1 working relationships with individuals	0.41	0.47		0.63	
16.1 interaction with the broader community		0.41 0.49		0.63	
13.2 working relationships with groups 15.1 awareness and knowledge of policies related to education	0.40			0.62	
(To the peacest 2 d n.)	0.40	0.45		0.58	

(To the nearest 2 d.p.)
Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 7 iterations.

CPD Needs: Which Is Urgent? Which Is Not?

Student development

Services" (\bar{x} =2.54) (see Table 5.2.1).

Teachers had the highest urgent need for Student Development domain for their CPD. It is noted that the range of the mean scores for the four CPD domains is more than 0.10. There is a greater difference in the CPD need between "Student Development" (\bar{x} =2.83), and the other three CPD domains, "School Development" (\bar{x} =2.64), "Teaching and Learning" (\bar{x} =2.59) and "Professional Relationships and

Teachers from the three schools demonstrated their great concern about student development. They consistently recognized student development as their major work in the field of education. Here are some of the examples that teachers explained the reasons why student development is of their main concern.

"The major reason is that our service targets are children. Learning better is the most beneficial thing to children." (Teacher Y, School C, Focus group interview, 11 September 2006)

"Our teachers love children. We are willing to care about children by heart. They are willing to spend time on talking with children. That is a kind of trust relationship. And it helps gradually build up an inter-dependence relationship. For education, our work is humanistic as our target group is students. So we will spend more time on this aspect." (Teacher N, female, School C, Focus group interview, 11 September 2006)

"Teachers' major responsibility is to teach. We are always inside the classroom." (Teacher E, female, School A, Focus group interview, 13 July 2006)

It is found that teachers perceived students as the core of education and they realize their teaching responsibility and willing to invest their time on students. Teachers seemingly held a strong moral purpose in the view of education.

Catering for students' diverse needs is the most concerned area in Student Development domain. They perceived "identifying and supporting students' diverse needs" as the most urgently needed CPD Strand (\bar{x} =2.98, SD=0.821) and the least urgently needed CPD Strand is "planning and organization of student development activities" (\bar{x} =2.70, SD=0.86). School C explained that they were already doing that so there was no need to pay further attention on that. Teachers took an integrated approach in supporting

differentiation of the students, for example, English learning day. However, the teachers did not put their 'extra' attention to individual children and individual child's learning needs is not of great concern and their major claim was that catering for diversity is emerged in the normal daily routine works. Here are some of the examples of teachers' explanations.

"Teachers' needs in whole-person development, I think, we are doing that... Otherwise, there will be too much. Students already are very busy. We know there is the need but we teachers don't feel concerned about that because they already have a number of interest classes. They are busier than us." (Teacher K, male, School C, Focus group interview, 11 September 2006)

"That is what we are doing now. We do not need to specially care about that... Like learning English, they can learn English online, or on English learning day. The school has already adopted a lot of measures in this aspect for whole-person development. So I feel we don't need any extra work on that." (Teacher N, female, School C, Focus group interview, 11 September 2006)

"It's already a routine work. So we don't need to put much care about that." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

On the other hand, teachers from School A did not feel the training need for planning and organization of student development activities because they were not at the position of planning student development activities. Here are the examples of what teachers said about their school situation.

"Planning and organizing diversified learning experiences... middle managers lead us to do so.... It is not us to discuss the plan together." (Teacher J, female, School A, Focus group interview, 13 July 2006)

"Participation is still much more than planning. The PSMCD [curriculum coordinator] will do the planning. This is because we are holding different posts." (Teacher E, female, School A, Focus group interview, 13 July 2006)

So teachers' CPD needs may be based on school conditions and leadership and varied from different schools.

Moreover, the CPD need for "identifying and supporting students' diverse needs" (\bar{x} =2.98, SD=0.82), which is the highest amongst other CPD strands in Student Development Domain. This is evident in the qualitative finding in the focus group interviews and individual interviews with teachers which is consistent with the quantitative finding of the questionnaire survey. Teachers showed their concern about great diversity of students and this concern was based on their daily observation in the teaching process. One teacher expressed,

"Our students' levels are of great difference. Their background is rather 'grass rooted'. Some have emotional problems, difficulty in getting alone with others. Their needs are not only learning needs so that we specially concern about this." (Teacher F, female, School A, Focus group interview, 13 July 2006)

Another teacher expressed that the concern about catering for diverse needs of students was based on the expectation of the society where teachers are expected to be able to cater for students' individual differences. She said,

"In Hong Kong, we generally can tailor-make the needs of pupils. We try our best to teach to cater for individual differences. This is to fully fulfill the principle of education here. So it [the need for identifYing and supporting students' diverse needs] must be higher." (Teacher J, female, School A, Focus group interview, 13 July 2006)

Another teacher also felt similar expectations from the parents and teachers should be able to cater for diverse needs.

"We feel satisfied with support to students. But for needs, we also want to learn. So one of topics for CPD day is language therapy. We held a workshop about language therapy, of course, we have funding to do so, but learning about this is still good for us. When parents ask about that, we also know what it is about. And we can feel more confident to answer their questions and we can teach the students more effectively." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

Discipline management is one of the expected topics as requested by teachers in catering for individual differences. The following teacher explained that,

"I think there is a higher need for studYing about discipline. After inclusive education policy, there are more students with behavioural problems, some are very calm, some are hyperactive. When facing them, I think there exists a problem. I cannot call it as a problem. It's existing there naturally. There is a natural need. For those students with special needs, you cannot handle them with the same measure. ... Every day there is a new thing. I cannot cater for every student's special needs... I do feel that I cannot do the best. So I need to know how to do better." (Teacher K, male, School C, Individual interview, 21 September 2010)

Their CPD needs in the Student Development domain are actually related to their current classroom context where teachers have to deal with classroom problems that are not only restricted to teaching and learning level but also student discipline and behavioural problems.

Table 5.2.1: Overall mean scores of CPD domains of teachers' perceived needs items by schools

Items		Ove	rall	School	ol A	Scho	ol B	Scho	ol C
	<u></u>	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
	Factor One: Teaching and Learni								
D1.1	command of subject matter knowledge	2.52	0.99	2.66	1.14	2.56	0.53	2.40	0.93
D1.2	updating of subject matter knowledge and search for new subject knowledge	2.69	0.87	2.80	1.08	2.67	0.50	2.60	0.73
D1.3	sharing and exchange of subject teaching practice	2.52	0.89	2.66	1.03	2.67	0.50	2.37	0.82
D2.1	command and application of pedagogical content knowledge	2.57	0.90	2.74	1.12	2.67	0.50	2.42	0.73
D2.2	curriculum design, implementation and improvement	2.71	0.89	2.71	1.02	2.78	0.44	2.70	0.86
D2.3	updating and sharing of pedagogical content knowledge	2.59	0.88	2.71	1.05	2.67	0.50	2.47	0.80
D3.1	knowledge and application of teaching strategies and skills	2.62 2.47	0.81	2.77	0.97	2.67	0.50	2.49	0.70
D3.2 D3.3	language proficiency motivation of student learning through different teaching methods	2.47	1.00	2.71	1.13	2.56	0.73	2.26	0.90
	and multi-media	2.59	0.86	2.71	1.02	2.56	0.53	2.49	0.77
D3.4	research and dissemination on teaching strategies and skills	2.41	0.87	2.69	0.96	2.56	0.53	2.16	0.79
D4.1	student assessment methods and procedures	2.64	0.85	2.71	1.02	2.67	0.50	2.58	0.76
D4.2	use of student assessment results	2.68	0.86	2.66	0.97	2.78	0.44	2.67	0.84
D4.3	evaluation and review of teaching and learning programmes	2.63	0.84	2.71	0.93	2.67	0.50	2.56	0.83
D9.1	Factor Two: School Developmen	nt (simplifi 2.55	ed factor 0.82	mean=2.6 2.74	4) 0.85	2.89	0.60	2 22	0.78
D9.1 D9.2	adaptation to the school vision and mission, culture and ethos actualization of school beliefs, vision and mission	2.55	0.82	2.74	0.85	2.89	0.60	2.33	0.78
D9.2 D9.3	cultivation of a caring and inviting school climate	2.68	0.82	2.80	0.83	2.89	0.60	2.53	0.77
D9.4	contribution to reviewing the school vision and mission, as well as promoting the school culture and school image	2.56	0.86	2.74	0.85	2.78	0.67	2.37	0.87
D10.1	understanding school goals and policies	2.57	0.83	2.66	0.91	2.78	0.67	2.47	0.80
D10.2	implementation of school policies, procedures and practices	2.66	0.78	2.71	0.89	3.00	0.50	2.53	0.70
D10.3	formulation of school policies, review of procedures and practices for continuous school development	2.63	0.81	2.69	0.90	2.89	0.60	2.53	0.77
D11.1	understanding students' family backgrounds	2.78	0.86	2.71	0.86	3.11	0.60	2.77	0.90
D11.2	communication with parents	2.70	0.88	2.71	0.89	3.11	0.60	2.60	0.90
D11.3	involvement in parent-related activities	2.57	0.86	2.71	0.93	3.22	0.44	2.33	0.78
D11.4	building trust with parents for further school development	2.71	0.85	2.80	0.87	3.22	0.44	2.53	0.86
D12.1	awareness and knowledge of societal changes in relation to their impact on school	2.68	0.79	2.71	0.89	3.11	0.33	2.56	0.73
D12.2	responsiveness to societal changes and issues related to social values	2.61	0.77	2.66	0.91	3.11	0.33	2.47	0.67
	Factor Three: Student Developme	ent (simpli	ified facto		83)				
D5.1	understanding students' diverse needs	2.85	0.82	2.94	0.94	2.67	0.71	2.81	0.73
D5.2	identifying and supporting students' diverse needs	2.98	0.82	3.06	0.91	2.78	0.67	2.95	0.79
D5.3	collegial collaboration in identifying and supporting students' diverse needs	2.87	0.83	2.89	0.90	2.78	0.67	2.88	0.82
D6.1	awareness of the importance of establishing rapport with students	2.80	0.95	2.94	0.97	2.67	0.71	2.72	0.98
D6.2	building trust and rapport with students	2.80	0.95	2.97	0.95	2.67	0.71	2.70	0.99
D7.1	providing pastoral care for students	2.90	0.88	3.03	0.95	2.78	0.67	2.81	0.85
D7.2	collegial collaboration in providing pastoral care	2.84	0.86	2.94	0.87	2.78	0.67	2.77	0.90
D8.1	participation and implementation of student development activities	2.74	0.81	2.94	0.91	2.44	0.53	2.63	0.76
D8.2	planning and organization of student development activities	2.70	0.86	2.91	0.95	2.44	0.53	2.58	0.82
D8.3	whole person development of students	2.80	0.87	2.91	0.98	2.56	0.53	2.77	0.84
D. (Factor Four: Professional Relationships an						1 1		T a
D13.1	working relationships with individuals	2.63	0.90	2.69	0.99	2.89	0.78	2.53	0.86
D13.2	working relationships with groups	2.57	0.90	2.63	0.97	2.78	0.83	2.49	0.86
D13.3 D14.1	working relationships within formal structures sharing of knowledge and good practices with others	2.54 2.52	0.90	2.71 2.71	0.96	2.78	0.83	2.35	0.84
D14.1	contributions to teachers' professional development	2.52	0.89	2.71	0.96 0.95	2.78 2.89	0.83	2.30	0.80
D14.2 D15.1	awareness and knowledge of policies related to education	2.64	0.89	2.80	0.93	3.00	0.50	2.44	0.67
D15.1	responsiveness to policies related to education	2.61	0.79	2.80	0.93	3.00	0.50	2.37	0.66
D15.3	contributions to policies related to education	2.47	0.81	2.74	0.82	3.11	0.33	2.12	0.70
D16.1	interaction with the broader community	2.48	0.81	2.74	0.85	3.11	0.33	2.14	0.68
D16.2	participation in education-related community services and voluntary work	2.41	0.87	2.63	0.91	3.00	0.50	2.12	0.79
/To the	nearest 2 d n)		1	l		·	1		1

(To the nearest 2 d.p.)

Professional relationships and services

Teachers perceived "Professional Relationships and Services" as the least urgently needed CPD domain (\bar{x} =2.54). Teachers perceived the two CPD Strands "participation in education-related community services and voluntary work" (\bar{x} =2.41, SD=0.870) as the least urgently needed CPD Strand and It is noted that this CPD Strand is also the least urgently needed CPD Strand out of the 46 CPD Strands in the four CPD domains. Focus group interviews with teachers consistently showed that teachers perceived the lowest need for the Professional Relationships and Services domain in the four CPD domains. Teachers expressed that Professional Relationships and Services domain is distant from their regular teaching work. They expressed that it is only required when there is a need to do those related work in school. This teacher mentioned.

"Just like new immigrant courses, we have the need. As students have the needs, we have to respond to the needs of clients. It depends on the need. When there's a need, we will request for help and get in touch with the organization." (Teacher F, female, School A, Focus group interview, 13 July 2006)

Heavy workload and time play a role in affecting teachers' CPD needs. This finding is consistent with the findings in the teachers' perceptions of the factors affecting CPD participation. Teachers explained that teachers were busy with teaching work and she did not realize the need to participate in the professional relationships and services. She said,

"Voluntary work, for primary schools, we seldom participate in it. Daily work...no time...administrative people have much contact with this much more than us. However, frontier works are difficult to have contact with this aspect. It's not special, as there is no spare time. For ordinary teachers, they do not have great needs." (Teacher J, female, School A, Focus group interview, 13 July 2006)

Moreover, this CPD domain, Professional Relationships and Services, is marginalized in the way that teachers are indifferent to participation in educational policy formulation and did not have motivation in participating in community services. Here are some of the examples of what teachers talked about this domain.

"...for the education policy formulation, there is great distance from us." (Teacher E, female, School A, Focus group interview, 13 July 2006)

"In Hong Kong, the education policy is always changing. When the teachers hear it, they are scared. There are so many reforms recently. And they always come urgently..." (Teacher J, female, School A, Focus group interview, 13 July 2006)

"Participation in formulating policy is not belonging to the school level. Generally, teachers do not participate in school administration. How would they participate in policy formulation that has a wider perspective? As this requires a more holistic review, it does not only include an administration level." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

"... the community is so big... we can't afford our time and energy to do so...participation in community services... this is not compulsory to do so. No need to hurry. Frontier workers are to teach... Participating in policy making... I am not the representative of the school. I cannot affect the policy much. As a teacher, my role is to teach." (Teacher F, female, School A, Focus group interview, 13 July 2006)

"Policy formulation... this is the EMB [Education Bureau] officers' work, not frontiers' work." (Teacher J, female, School A, Focus group interview, 13 July 2006)

At the same time, interestingly, teachers regarded that the need for the Professional Relationships and Services domain is mostly for those in higher managerial positions, such as principals or higher managers, whilst ordinary teachers' work is for teaching. This teacher expressed,

"Only the principal or higher managers will participate in [professional relationship and service domain]. The teacher's role is to teach. But the principal represents the school, he has much more power. Frontier teacher is to serve the clients." (Teacher E, female, School A, Focus group interview, 13 July 2006)

Another teacher had a similar view, saying that,

"We have no time to participate in [Professional Relationships and Services domain]. We just see from the level where we are. But, the principal has the power to allocate resources. He can do it thoroughly in this aspect." (Teacher J, female, School A, Focus group interview, 13 July 2006)

In her view, professional relationships and services is more related to principals' work as principals have more power and are able to oversee the situation and establish relationship with other professional organizations for school development.

The above findings may reflect that teachers have a limited view about their role in school. It seems that they only realize their role in teaching in the classroom, rather than their relationship with communities and other professional organizations.

Teaching and learning

CPD needs in the Teaching and Learning domain is seemingly related to the educational trend and school-based curriculum development. Teachers regarded "updating of subject matter knowledge and search for new subject knowledge" (\bar{x} =2.69, SD=0.87) as the most urgently needed CPD Strand. One teacher pointed out,

"For example, we have Putonghua to teach Chinese. This is the basic requirement for employing Chinese language teachers. Language teachers should have relevant knowledge and abilities. They should be good in using the language to teach that subject." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

Another teacher from School A shared a similar view about CPD need for subject knowledge is necessary and urgently needed as a result of curriculum change. She said,

- "...The demand on teachers has been higher. For example, to teach mathematics, we need to study for a degree in Mathematics. This is to have subject knowledge. This is also for personal growth. In long terms for personal career development, the first thing is to have subject knowledge." (Teacher J, female, School A, Focus group interview, 13 July 2006)
- "...first I think I still lack subject knowledge. I want to learn more. At primary level it is enough. However, I think Mathematics is more difficult, there are many concepts, I want to explore more deeply. I think my subject knowledge can be further strengthened. Second it will be on billiterate and trilingual skills. I think we did not have Mandarin subject in the past. We always had spoon-feeds in learning English. That means there is a great difference between the past and now. Now primary students have to undergo listening, writing assessment. There was none in my childhood... Third it's about global issues. One of them is environmental protection. ... how the world is affected and the impacts... like water pollution... I think this should be more concerned." (Teacher N, School C, Individual interview, 21 September 2010)

"I am studying subject knowledge ... when I study, I find the mathematic knowledge is very difficult. I don't need to learn much like a mathematician does but I think I need to learn more or have to think in a faster way, this is what I want to do more. For environmental issues, ... I feel I am inadequate... for billiterate and trilingual, I can speak Mandarin and English but I feel I am not fluent enough. Can I get improvement in all the above three things? This is not possible, but I want to do better and continue to develop." (Teacher N, School C, Individual interview, 25 September 2010)

These two teachers come from the schools where the schools were beginning to adopt new school-based initiatives, that is, using Putonghua for Chinese language and "subject taught, subject trained" in mathematics subject respectively.

Besides, teachers complained about the issues associated with subject knowledge training needs due to external factors. Teachers faced pressures from the government policies affecting their own professional development needs. One teacher expressed.

"For the benchmarking, in the first two years, there were lots of complaints, the authority did not say any more. We think that it's just like TTRA [Targets and Target-Related Assessment], TOC [Target-Oriented Curriculum], they would disappear at last." (Teacher E, female, School A, Focus group interview, 13 July 2006, Focus group interview, 13 July 2006)

"Too many changes in education... The entry requirements to be a teacher.... In reality, after studying a general bachelor degree in education, it's not subject trained subject taught. It cannot fulfill the requirement of the school and government. It makes teachers so puzzled." (Teacher F, female, School A, Focus group interview, 13 July 2006)

"This is the culture. Like in commercial and financial industry, there is a basic requirement for the job." (Teacher J, female, School A, Focus group interview, 13 July 2006)

The government entry requirement as a teacher also is one of the factors affecting teachers' choices of CPD activities. From the above, it seems that the changes in policy and basic employment requirements from schools and policy may influence teachers' needs and concerns in their own CPD needs.

Moreover, pressure from the parents is also a source of tensions influencing teachers' choices in CPD. Teachers also felt strong needs to enhance themselves as a result of higher demands from the parents and the society. One teacher expressed that,

"Of course, there is a need because everything is changing at anytime. Parents' demands are higher and higher. They are very concerned about school performance and always compare with other schools. That's why we always need to keep our pace to the changing needs." (Teacher F, female, School A, Individual interview, 25 August 2010)

In spite of the above, teachers are still concerned about the updates of personal pedagogical knowledge and teaching skills. Teachers in the study were alert about their current needs in equipping themselves with necessary subject knowledge and realized that continuous learning is necessary. When being asked about professional development needs, the following teachers responded that,

"First, it's about teachers' pedagogical knowledge. Second, that is subject knowledge enhancement. Like Mathematics subject, we already have a lot of different units. If we need to study them deeply, there should be more efforts. That means, we should know much more than students, it's not just related to the knowledge inside the curriculum. For pedagogical skills, I think that relies on collective wisdom. If we colleagues have more chances to learn from each other, we can gain a lot through lesson observation or collaborative lesson planning. ... for teaching skills, like class management, questioning, ...how to mark student

assignments... actually achieving my personal goals of fulfilling my CPD needs is not possible. What I can do is to try my best based on my ability and doing as much as I can." (Teacher J, female, School A, Individual interview, 17 August 2010)

"...of course in my subject knowledge. You are teaching that subject every day, then of course you have to know more and it is helpful to your teaching. Because if I have not prepared and get into the classroom, I don't feel happy. In other words, if you prepare more, students learn more and then you will enjoy it. I think the most important thing at this stage is professional studies... it's never an end to learning." (Teacher Y, female, School C, Individual interview, 25 September 2010)

However, teachers in this study expressed their helpless situation in which they were required to learn certain specific skills due to a change in the working context and job nature. For example, this teacher was an Art teacher but currently became a librarian teacher, talking about her training needs in different working situations:

"At this stage, as I have become a librarian teacher this year and I did not have the related experiences, there's only one librarian teacher responsible for teaching library skills, then I cannot learn from each other through collaborative lesson planning. Then the only way to learn is engaging in a librarianship programme outside school." (Teacher E, female, School A, Individual interview, 25 August 2010)

"Actually I don't know what library skills are required to teach. When giving a lesson to teach, when that lesson is about famous painters' painting skills, if you know about that you know what to teach. However, the library lessons have been started since 2000 when the Education Department [currently renamed as Education Bureau] established the post of teacher librarian. There was no such a post before that. However, right now I have to do the job and I need to learn about what to teach, how to teach and how to assess in library lessons. I am supposed to know all of them." (Teacher E, female, School A, Individual interview, 25 August 2010)

On the other hand, teachers were aware that they needed to learn teaching skills to handle with students' learning difficulties. One of the teachers mentioned that:

"I have tried doing the job the best...when I feel that I am not adequate enough, then I find other colleagues and search information to understand the teaching topic, especially those new topics... [I feel the need for learning] teaching skills or understanding more about students ... through exchanging ideas with colleagues or finding some experts for enquiry ... as in my teaching, there are some students with special learning needs, I will ask for advice from the experts about how to deal with the students' emotional problems... the experts can be parents who know their children well at home and I can learn some simple and easy ways to handle them... " (Teacher F, female, School A, Individual interview, 25 August 2010)

Teachers in the study also realized that CPD helps them to update knowledge and get refreshment about their current teaching job. One teacher said that:

"This is a must for CPD as teachers always do the job again and again. You face the same thing daily. If you don't know more, and you cannot get any improvement in your routine work." (Teacher J, female, School A, Individual interview, 17 August 2010)

From the points of view of teachers, their CPD needs mostly originate from their practical issues in teaching. On this point, this is in alignment with what they think about effective CPD activities, i.e. immediate practical solutions to teaching problems. However, at the same time, teachers' CPD choices are affected by external factors such as government policy, curriculum reform and parents. This further reflects that teachers in this study normally have a narrow view of CPD for the purpose of short-term, immediate training of certain skills or knowledge to deal with current situational needs, rather than a developmental view of learning.

However, "research and dissemination on teaching strategies and skills" (\bar{x} =2.41, SD=0.87) was perceived as the least urgently needed CPD Strand in Teaching and Learning domain. It is noted that "research and dissemination on teaching strategies and skills" is also the least urgently needed CPD Strand in the 46 CPD Strands in the four CPD domains. Teachers' responses are similar to those mentioned in their perceptions about the production of publications. Teachers put this CPD need as a marginalized priority in their CPD. They lacked the motivation in learning about research as they lacked time and heavy workload. One teacher expressed,

"When hearing the word 'research', it is a big thing. It takes lots of time such as doing a lot of clerical work. So heavy workload... our major role is to teach, not to do research." (Teacher F, female, School A, Focus group interview, 13 July 2006)

Teachers were also hesitant about the effectiveness and usefulness of research and sharing.

One teacher said.

"Research, sharing and dissemination of practice... teachers are already facing big challenges and changes... if it is compulsory to do so, we find that we are not at that suitable level to do so." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

Her expression also may reflect that research was perceived as a high demanding work and teachers may not be confident or able to do research on their own. This is evident in another teacher who shared that doing research may be a new thing to most of the teachers and teachers do not feel comfortable with doing so. She said,

"In Hong Kong, not like in other countries, nowadays, at the beginning of teaching, teachers begin their teaching lives and have started doing research. We, as older teachers, did not do research before. We participated in educational reforms... but just from these ten years. Formerly, there was no such a thing like research in teaching." (Teacher J, female, School A, Focus group interview, 13 July 2006)

Hence this finding showed that the research is marginalized and this result was consistently evident with the findings about teachers' perceptions of CPD activities.

School development

In the School Development domain, teachers perceived the need for "adaptation to the school vision and mission, culture and ethos" (\bar{x} =2.55, SD=0.82) as the least. Teachers mostly were concerned about their teaching job rather than school policy-making. For example, one teacher said,

"I clearly recognize that my role as a teacher. My work is to teach." (Teacher F, female, School A, 13 July 2006)

"Middle managers will participate in this aspect. The teacher's identity is to teach." (Teacher E, female, School A, Focus group interview, 13 July 2006)

"We have been doing very well. Our principal has guided us very well. We don't have a special need for this aspect." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

"Our school has 30 years. She has her regular rules. Everything is regularly operated. She is mature. Any amendment will be made only if teachers ask for." (Teacher F, female, School A, Focus group interview, 13 July 2006)

It seems that teachers did not realize leadership training needs and it is limited to certain roles of teachers such as middle managers and principals. This may be related to culture that has long been established. This is also seemingly related to school conditions, including leadership styles of headship, cultures and ethos, and historical background.

However, they perceived "understanding students' family backgrounds" (\bar{x} =2.78, SD=0.86) as the most for their CPD need. Teachers regarded that understanding students' family backgrounds is important to student learning. One teacher expressed,

"Getting in touch with parents ... naturally inter-dependent with each other fo student learning." (Teacher F, female, School A, Focus group interview, 13 July 2006)

"Parents are our second clients after students. Communicating with parents can be helpful to teaching." (Teacher E, female, School A, Focus group interview, 13 July 2006)

"We have a mechanism of communication with parents, such as interviewing with parents, calling parents on phone. ... We participate much more. We have the need." (Teacher J, female, School A, Focus group interview, 13 July 2006)

Summary

This Chapter has presented the key findings of teachers' perceptions of their CPD needs of teacher competencies in the four CPD domains of the TCF in the CPD Document 2003, namely, Student Development, Teaching and Learning, School Development and Professional Relationships and Services. Student Development domain was of the highest urgency for teachers' CPD need while the lowest was Professional Relationships and Services domain. Teachers were greatly concerned about students. They were willing to invest their time in this domain. They had the highest CPD need in catering for individual needs of students in Student Development domain.

The findings generally showed that teachers perceived their role of a teacher from a limited perspective. In this study, teachers were alert about their role as a teacher and teaching is their main duty and responsibility. However, they did not realize their participatory and professional role in school development and professional relationships and services. The Professional Relationships and Services domain is marginalized by teachers as they expressed that they were not concerned about government educational policy which is always changing and they felt they just had a minor role in educational policymaking. Meanwhile, teachers realized that CPD needs in the School Development domain are related to certain managerial positions in school. Their CPD needs in this aspect might also be bounded by school factor such as school cultures and school leadership.

To sum up, teachers' CPD needs seemingly are affected by schools, parents, communities and the government. There may be an imbalance between teachers' personal needs and school needs. Their position in CPD seems to be passive. School conditions seemingly play an influential role in affecting teachers' perceptions of CPD needs. In other words, teachers' CPD needs are affected by individual school situations, including school culture and ethos, as well as school leadership.

Chapter Six will further discuss the key research findings in relation to teachers' perceptions of factors that facilitate and hinder teachers' participation in CPD.

CHAPTER SIX

FACTORS AFFECTING TEACHERS' PARTICIPATION IN CPD

Introduction

Teachers' perceptions of CPD activities and professional development needs of teacher competences listed in the CPD Document 2003 were investigated in the previous two chapters. The current chapter focuses on the presentation of the findings of teachers' perceived factors that affect their CPD participation. Facilitating and inhibiting factors affecting teachers' CPD participation are first presented as followed by a comparison between them. The perceived factors are further discussed and illustrated in details with the use of quantitative and qualitative data as gained in the CPD Questionnaire Survey, focus group interviews and individual semi-structured interviews.

Factors Affecting Teachers' Participation in CPD: What Matters?

What factors facilitate and hinder teachers' participation in CPD?

In this study, teachers' responses about the facilitating and inhibiting factors affecting teachers' CPD participation in CPD were explored in the questionnaire survey. These identified factors were similar to each other (see Figure 6.1.1).

Eight key factors facilitating teachers' CPD participation were categorized according to qualitative responses to the CPD Questionnaire Survey (see Table 6.1.1a and Table 6.1.1b). They include: school factor, personal factor, financial factor, time, CPD provider, family factor, relationship with others and government factor.

Meanwhile, six inhibiting factors affecting teachers' CPD participation were categorized, including: time, heavy workload, financial factor, CPD provider, school factor and personal factor. It is noted that School B teachers did not have any responses in this part concerning facilitating or inhibiting factors affecting their participation in CPD and most of the teachers of School A and School C who responded in the questionnaire survey gave brief responses. School A teachers and School C teachers held some

similar and different views upon the factors affecting their participation in CPD. Their differences and similarities are presented as follows.

Figure 6.1.1: Teachers' perceived factors affecting their CPD participation

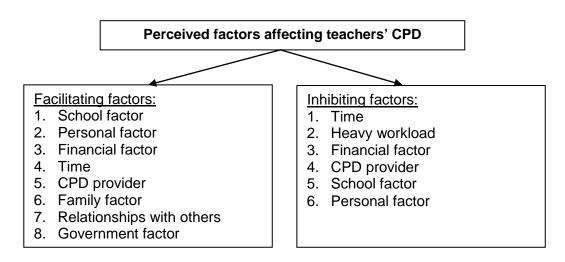


Table 6.1.1a: Examples of statements related to facilitating factors affecting teachers' CPD participation in the CPD Questionnaire Survey

	participation in the CPD Questionnaire Survey					
Facilitating Factors	Examples of statements					
School factor	"The school has provided some workshops or seminars for teachers to participate." (#3, School A) "School support." (#5, School A) "More promotion chances should be given to teachers." (#4, School A) "[There is a need for] some school measures of corporation." (#24, School A) "The school's encouragement." (#26, School A) "The working time is regular, and this is more favourable to arrange personal continuing professional development." (#29, School A) "The school has to understand and support teachers' continuing education, should reduce teachers'					
	workload, in order to let them have much time to study and do the related research." (#32, School A) "The school encourages teachers to have CPD; at the same time, but not able to fulfill teachers' need of time, always arrange activities that lead to teachers being absent from CPD courses. (#35, School A)					
Personal factor	"My enthusiasm and interest." (#10, School A) "Sense of responsibility does have effects on teachers' participation in CPD." (#10, School A) "In time of dealing with changes and making progress." (#10, School A) "I am still young." (#18, School A) "One's own belief, including colleagues' common beliefs about education." (#21, School A) "Personal belief of its urgency." (#30, School A) "When facing new challenges in work and fulfill personal interest." (#33, School A)					
Financial factor	"When tuition subsidy can be available for teachers." (#35, School A) "When there is a provision of paid leave for CPD." (#33, School A)					
Time	"More time for study and learn." (#5, School C)					
CPD provider	"Lots of choices of CPD course." (#7, School A) "Course contents can suit my needs." (#30, School A) "When it helps enhancement of subject knowledge and grasp more latest news." (#22, School A) "When I can learn about some updated educational information." (#32, School A) "Workshops are mostly held on Saturdays so I can join them." (#8, School A)					
Family factor	"Family support is important to support her participation in CPD" (#11, School A)					
Relationship with others	"Support from colleagues and friends" (#3, School C)					
Government factor	"encouragement from the government" (#33, School A)					

Table 6.1.1b: Examples of statements related to inhibiting factors affecting teachers' CPD participation

Inhibiting Factors	Examples of statements
Time	"School teaching work or lesson periods, no time to participate." (#3, School A)
	"Lack of time." (#27, School A)
	"Time constraint." (#1, School C)
	"Time arrangement for CPD is difficult." (#22, School C)
	"Because of after-school meetings, I have no time to participate." (#34, School C)
Heavy workload	"Work pressure is too large, hope to have some rest." (#2, School A)
	"Heavy school workload." (#4, School A)
	"Too busy teaching work and private affairs." (#6, School A)
	"School work is too tiring." (#9, School A)
	"Daily work is too busy." (#24, School A)
	"Too much non-teaching workload in the school." (#26, School A)
	"Too much school work, it greatly diminishes time for leisure." (#S29, School A)
	"Too much pressure from work, leading to no interest in CPD." (#33, School A)
Financial factor	"Tuition fee is too expensive." (#7, School A)
	"Financial problem." (#32, School A)
	"Financial pressure." (#33, School A)
CPD provider	"The quality of CPD course is too diverse." (#7, School A)
	"Practicality of the course, e.g. teaching mandarin as a medium of instruction." (#10, School A)
School factor	"The school suggested teachers not joining those workshops within school days, except in the case
	that the school recommends to do so, hence, participation in those workshops on school days is
	difficult." (#8, School A)
	"Sometimes school development needs would be obstacles to personal continuing professional
	development." (#25, School A)
Personal factor	"Personal health." (#33, School A)

Differences and similarities of the factors affecting teachers' participation in schools

Facilitating factors

There were 19 respondents (54.3%) from School A and 16 respondents (37.2%) from School C respectively responding to the survey question relating to their perceived factors favourable for CPD participation (see Table 6.1.2a). Seven common themes were emerged according to the views from the respondent teachers from School A. They included: school factor, personal factor, financial factor, time, CPD provider, family factor and government factor. School A teachers did not mention about relationship with others as a factor facilitating their CPD participation while School C teachers did not mention about CPD provider and government factor.

Inhibiting factors

A total of 24 teachers (68.6%) from School A responded to the question regarding the inhibiting factors affecting their CPD (see Table 6.1.2b). There were eleven teachers (31.4%) who did not give any response to the question. For School C, 15 teachers (34.9%) showed some obstacles towards CPD.

Twenty-eight (65.1%) teachers did not express that they had any obstacles towards CPD. Six common themes were emerged according to the views from the respondent teachers from School A. These themes included: time, heavy workload, financial factor, CPD provider, school support and personal factor. However, School C teachers did not mention about the personal factor as an inhibiting factor affecting their CPD participation.

Table 6.1.2a: Frequency of respondents to perceived factors facilitating CPD

	School A (N=37)	School C (N=43)	Total no. of respondents
	No. of respondents (%)	No. of respondents (%)	(%)
With responses	19 (54.3)	16 (37.2)	35 (44.9)
No responses	16 (45.7)	27 (62.8)	43 (55.1)

Table 6.1.2b: Frequency of respondents to perceived factors inhibiting CPD

	School A (N=37)	School C (N=43)	Total no. of respondents
	No. of respondents (%)	No. of respondents (%)	(%)
With responses	24 (68.6)	15 (34.9)	39 (50)
No responses	11 (31.4)	28 (65.1)	39 (50)

In the study, Chi-square tests were used to test relationship between demographic characteristics and teachers' perceptions of factors affecting their participation in CPD. The results are shown in Appendix IX Chi-square Test Results of Relationship between Demographic Characteristics and Teachers' Perceptions of Factors Affecting CPD Participation.

A detailed analysis on the facilitating and inhibiting factors affecting teachers' CPD participation is discussed in the coming sections.

Workload matters? Time matters? School matters?

Not surprisingly, heavy workload and time are important factors affecting teachers' participation in CPD (see Table 6.1.3a and Table 6.1.3b). A total of 70.7% (N=41) of the respondent teachers regarded time and heavy workload as the factors inhibiting teachers' participation in CPD (see Table 4.4.3a and Table 4.4.3b). Some teachers regarded that a lack of time is a common problem to Hong Kong people.

One teacher stated that "Most of Hong Kong people are alike. It is very common in Hong Kong. Time is always not sufficient." (Teacher N, female, School C, Focus group interview, 11 September 2006).

However, both heavy workload and time factors are seemingly interrelated to each other in affecting teachers' participation in CPD. Due to shortage of time and heavy workload, some teachers felt that it was difficult to join any CPD activities. Teachers did not feel that they could fulfill the requirements of the CPD activities. For example, this teacher encountered a problem about submission of assignments. She stated that:

"... the most difficult part is the course attended requires you to do assignment...their requirement is high... other than the job, I have to spend much time on the assignment... studying for a higher degree such as master or doctoral degree is also one kind of CPD... sometimes you have to do presentation, report, assignment. You have to handle them...it's not just a matter of CPD, it's a matter of academic studies, you are not a full-time student, but the institute possibly requires you to do the same thing as demanded on full-time students. It's not a light-hearted work. So like us, or other professions, when you have a job and have to submit assignment, there is relatively insufficient time." (Teacher N, female, School C, Individual interview, 21 September 2010).

One particular teacher gave an example of heavy workload and time as her obstacles towards her CPD. She pointed out her difficulty, saying that,

"Busy...so much work ...at 7 p.m. I am in a hurry to go to study. On Saturdays and Sundays, we don't have time to do assignment because we sometimes need to be on duty for doing some activities like open campus days or extra-curricular activities. I am not spiritual and am physically tired." (Teacher E, female, School A, Focus group interview, 13 July 2006)

Her busy professional life has limited her participation in CPD. Another teacher stressed that teachers were now facing changes and had more workload in the teaching life. She said, "As a teacher today, we do have a lot of work. You need to put a lot of efforts on it." (Teacher F, female, School A, Focus group interview, 13 July 2006). Another teacher shared a very similar view, stating that, "Much work needs to be done in details. There is so much clerical work to do." (Teacher J, female, School A, Focus group interview, 13 July 2006).

Teachers in the study were busy due to heavy workload and they explained that they had to do administrative works that included different kinds of daily clerical paper work. The following teachers

pointed out different types of administrative works that teachers had to handle every day. This teacher, who is a senior teacher responsible for middle management talked about her heavy administrative workload, stating that:

"General affairs include printing examination paper, assignment, etc. I need to take care of teaching affairs, such as giving advice on lesson plans. That is also one part of learning and teaching. ... some middle managers and me read the lesson plans and then give feedback to teachers." (Teacher Y, female, School C, Individual interview, 21 September 2010)

Another teacher, who is a panelhead, talked about his workload, stating that:

"[administrative work] can be very piecemeal... for example, collecting and checking all the teaching aids for each unit, checking if there is any need for revision, and then you need to talk to colleagues about that. This is a kind of administrative work. You have to keep a record. I have to collect all the information about external competitions and courses and then circulate them to colleagues. You will know a lot of things because all the subject-related matters are all handled by you. You have to read through all of them and check if it's useful or valuable and give reasons. There are heaps of these kinds of stuff every day. You cannot say it's simple. Just like in September. There is a speech festival competition enrollment. You have to collect all the name lists and collect the payment, calculate the total amount of payment, then sending the application. It's very piecemeal. If you think it's just a minor issue, then if you add all of these minor issues, you must not handle them within one day or half-day." (Teacher K, male, School C, Individual interview, 21 September 2010)

Other than clerical work, teachers also had to attend different kinds of meetings. That caused them to be unable to participate in CPD activities. For example, this teacher said:

"Lack of time. I am always busy. I have to prepare lessons. Every week there are so many activities, parents-teachers association meetings, or parents' seminars. I have to deal with lots of school work..." (Teacher F, female, School A, Individual interview, 25 August 2010)

The above examples showed that teachers' workload mainly come from administrative work more than simply teaching work. One teacher described workload as:

"...the biggest obstacle to CPD. A human being is just like a biscuit, you separate it into pieces, you can have CPD, but your time is distributed to different parts." (Teacher K, male, School C, Individual interview, 21 September 2010)

Therefore, teachers' job is not only about teaching in the classroom but also administrative works outside classrooms that would occupy a lot of time and they thus lack time to engage in CPD in their busy school life.

Meanwhile, time management is an important issue that teachers would have to deal with. Teachers expressed that she encountered a problem in time allocation for their daily lives as school work occupied much of the time and even there was not enough time for family. They found it difficult to manage time evenly in different areas, including CPD, and cope with different tasks at the same time. One teacher expressed her difficult situation in this way,

"And we still need time to spend on family. If we can have much space, that will be better." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

Another teacher expressed that:

"...the school or other educational organizations are providing different CPD activities ... there are enough number of CPD events there...but is it really enough?... I don't think so. Because there are too many things deserved to do, that means, it's difficult to do all of them at the same time. I think they should be gradually done ... I will continue to train my biliterate and trilingual skills. I am doing them but not yet satisfied. ..." (Teacher N, female, School C, Individual interview, 21 September 2010)

Teachers also felt that there was a lack of time for focusing on studying and find pressure in dealing with CPD activities such as examination. One teacher described her CPD experience that:

"... I spent more than one month in revision. Because you go to work and you don't have time to revise in the morning. On Saturdays, there may be family activities or school work. Or I attend classes. Then I don't want to study after going back home. Before examination, you have to prepare examination at night. That is also about time. Possibly when you go back, you want to take a rest... however I feel so puzzled when going home after attending classes." (Teacher N, female, School C, Individual interview, 21 September 2010)

Nevertheless, one School C teacher's view about workload and time was quite different from other teachers. He illustrated the relationship between heavy workload and time, stating that:

"This may not be just related to workload. It's mainly just because of shortage of time to do so many things as mentioned at the same moment. Time and money are very common obstacles... I think it's not related to workload. It actually is related to insufficient time here, and we felt hat CPD is what we need to do. But because we just have two hands and we can't do it at the same time." (Teacher K, male, School C, Focus group interview, 11 September 2006)

He viewed CPD as teachers' responsibility but found it hard to have some more time on CPD. It seemed that his understanding about CPD was limited and CPD was an extra activity which was not included in

the teaching job. This implies teachers may lack a wider view about CPD and the concept of CPD is not embedded in their works (i.e. workplace learning).

Regarding the workload issue, there were just three teachers from School C who addressed heavy workload as an obstacle to their participation in CPD. The interview responses from the teachers of School C might help to explain this situation. School C teachers consistently told the researcher that they were not facing the 'being killed' problem and their school was attractive enough to allure sufficient students and they did not need to do extra work for attracting students. However, there were thirteen teachers from School A who regarded heavy workload as an inhibiting factor affecting their CPD participation. The School A teachers responded that they needed to do a lot of administrative works and some 'extra' work such as making newsletter leaflets for promoting their school in order to sustain or raise its attractiveness to parents. Hence school conditions might directly or indirectly affect teachers' CPD participation.

More interestingly, heavy workload and time factor tend to be linked with school factor. A total of 27.7% (N=13) of the respondent teachers expressed that school support could help facilitate their participation in CPD. Although there was no correlation found in between demographic characteristics (i.e. gender, age, the highest academic qualifications, years of teaching experience, teaching rank and school) and teachers' perceived facilitating factors affecting CPD, the Chi-square test indicated that there existed another significant difference between school and heavy workload as an inhibiting factor affecting teachers' CPD participation (x2=18.830, df=2, p<0.05). This reflected that workload varied from different school contexts.

Meanwhile, as summarized from the statements of the respondents in the questionnaire survey, there were two main reasons (see Table 4.4.3e and Table 4.4.3f). First, school could arrange the time and workload to let teachers participate in CPD activities. Second, school could provide opportunities for them to get involved in CPD activities. Teachers suggested that conditions should be created by the school for letting teachers join in CPD activities freely. They suggested that the school should give more time for facilitating teachers' CPD by allowing CPD activities to be conducted within school hours and

arranging time for teachers to have more space in engaging in CPD activities. The followings are the examples of what teachers wrote about facilitating factor relating to school support by means of allocating more time for teachers to engage in CPD activities.

"The school has to understand and support teachers' continuing education, should reduce teachers' workload, in order to let them have much time to study and do the related research." (#32, School A, written statement in the CPD Questionnaire Survey, April 2006)

"The school encourages teachers to have CPD; at the same time, but not able to fulfill teachers' need of time, always arrange activities that lead to teachers being absent from CPD courses." (#35, School A, written statement in the CPD Questionnaire Survey, April 2006)

"... the school should provide a suitable environment. The school has done quite a lot, like conducting talks and workshops. ... We also can enroll in the seminars provided by the government or educational organizations." (Teacher J, female, School A, Individual interview, 17 August 2010)

Even so, teachers still had some flexibility in adjusting the time of the lessons and they could attend the CPD activities. One teacher said,

"That's time, I think. How to manage time. Because I am responsible for WEBSAMS [Webbased School Administration Management System]. When taking WEBSAMS class, it is always held within school hours. I don't want my colleagues to substitute my class always. So in this case I need to change the schedule for my classes and my classes will be put together in a crowded block and it actually shortens my working time." (Teacher N, female, School C, Focus group interview, 11 September 2006)

However, according to the teachers, school factor could also be identified as an obstacle to CPD. There were conflicting views between schools and teachers regarding CPD issues. In the questionnaire survey, one teacher wrote,

"The school suggested teachers not joining those workshops within school days, except in the case that the school recommends to do so, hence, participation in those workshops on school days is difficult." (#8, School A, written statement in the CPD Questionnaire Survey, April 2006)

Time clash between CPD activities and working hours is a common problem that teachers encountered when participating in CPD activities. For example, this teacher complained that:

"...the real problem is about the clash with the time of the external seminars and working hours... sometimes you cannot attend those seminars which are within school hours..." (Teacher N, female, School C, Individual interview, 21 September 2010)

Teachers expected their schools to create more time and space to allow them to participate in CPD activities. However, in the reality their expectation could not be fulfilled. One teacher said:

"I think it's still about time. Because there are more curricula, more tutors, your heart is not there because you just think about the heaps of assignment books, administrative works, you will not be whole-hearted to listen or do the things. ...It's always mentioned about creating space for teachers...however, even when doing so, there is still something else to ask you to do because the school thinks that you have more space to do that. It's always happened." (Teacher K, male, School C, Individual interview, 21 September 2010)

Another teacher also believed that the increase of manpower could help allow more time for teachers to participate in CPD. She added,

"I hope there will be a reduction in the number of lessons. The workload is so heavy. If employing more teachers, we can have much time." (Teacher J, Female, School A, Focus group interview, 13 July 2006)

Interestingly, teachers regarded that school factor concerning school support and school arrangement was originated from principal's understanding. One teacher from School C stated,

"The school is very willing to support us to take courses when the school knows that there is a need. So when there is a need to substitute lessons, there will be some special arrangements. The principal will not give you any 'coloured face' or say 'again?'? She knows you are willing to learn for the school." (Teacher N, female, School C, Focus group interview, 11 September 2006)

Some teachers appreciated their school for giving them chances to join CPD activities. Here are some of the examples of what teachers thought about their school in supporting their CPD participation.

"I don't think time is a problem.... Like the professional development day, it provides a very good opportunity for us to go away. Actually it's carried out within working days. Sometimes ...teachers' holidays are more than other jobs... we are using holidays that other people don't have for training or studies. That is really beneficial to you. Personally further studies within working hours is good. ...holidays are given for professional studies. This is not really lack of time. When others are working, we are having holidays, it's reasonable. The time for further studies depends on your decision. It's not compulsory to oblige you to do so. Usually you get enrolled in the programme when you have holidays. That's why I said it's not compulsory. If you don't get enrolled, then there's nothing to hinder you. But the number of CPD hours provided by the school is always enough. The school's provision is always within school

hours. So I think it does not influence your participation in CPD." (Teacher N, female, School C, Individual interview, 21 September 2010)

Another teacher held a similar view and expressed that:

"The school also holds different types of CPD activities co-organized by different institutions. That is also one kind of support to CPD. Just like we went to CUHK [the Chinese University of Hong Kong] to attend the conference which was actually not free, however the school had paid for us." (Teacher N, female, School C, Focus group interview, 11 September 2006)

The teachers also suggested that the school could provide financial support to teachers to participate in CPD by paying tuition fees of the CPD courses and there should be good management of school resources so that teachers could find it more convenient to participate in available CPD courses. The above may imply that the difference in teachers' participation may rely on principal's leadership and recognition of the importance of CPD to teachers.

In short, seemingly, heavy workload, time and school factor tend to be associated factors affecting teachers' CPD participation.

Table 6.1.3a: Frequency of responses to perceived factors facilitating CPD

Fac	tors	School A (N=37)	School C (N=43)	Total no. of responses
		No. of respondents (%)	No. of respondents (%)	(%)
1.	School factor	6 (25)	7 (30.4)	13 (27.7)
2.	Personal factor	9 (37.5)	1 (4.3)	10 (21.3)
3.	Financial factor	3 (12.5)	7 (30.4)	10 (21.3)
4.	Time	1 (4.2)	4 (17.4)	5 (10.6)
5.	CPD provider	3 (12.5)	0 (0)	3 (6.4)
6.	Family factor	1 (4.2)	2 (8.7)	3 (6.4)
7.	Relationship with others	0 (0)	2 (8.7)	2 (4.3)
8.	Government factor	1 (4.2)	0 (0)	1 (2.1)

Table 6.1.3b: Frequency of responses to perceived factors inhibiting CPD

		School A (N=37)	School C (N=43)	Total no. of responses
Factors		No. of respondents (%)	No. of respondents (%)	(%)
1.	Time	12 (32.4)	13 (61.9)	25 (43.1)
2.	Heavy workload	13 (35.1)	3 (14.3)	16 (27.6)
3.	Financial factor	4 (10.8)	2 (9.5)	6 (10.3)
4.	CPD provider	3 (8.1)	1 (4.8)	4 (6.9)
5.	School factor	2 (5.4)	2 (9.5)	4 (6.9)
6.	Personal factor	3 (8.1)	0 (0)	3 (5.2)

Personal factor matters?

A total of 21.3% (N=10) of the respondent teachers perceived personal factor as one of the major factors contributing to teachers' participation in CPD. The teachers believed that personal factor such as their own goal, enthusiasm and belief could contribute to their CPD participation (see Table 6.1.4a). Some of them suggested that health problem could also affect their participation in CPD. Some teachers also considered personal needs and interests in their consideration of CPD participation. One teacher pointed out that personal interest could be favourable or unfavourable to CPD. During the interview, she told the researcher that.

"Interest can have two sides. It may be a favourable factor or an unfavourable factor. However, I think CPD should be continuing, beneficial to teaching and learning to bring about satisfaction and teaching better." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

Although teachers found it hard to handle CPD due to lack of time, teachers felt that they could get more satisfactions from parents by applying what they had learnt in CPD activities. For example, this teacher said,

"Parents' praises, that's a way to recognize your work. ... just like handling students' emotional problems well, parents felt that teachers used professional strategies to handle and I felt more comfortable and I could know about others' opinions. I would feel more calm and willing to use more time and efforts in handling the student problems." (Teacher F, female, School A, Individual interview, 27 August 2010)

It seems that teachers' commitment to teaching is a source of personal interest and motivation for participating in CPD.

However, teachers also felt that there lacked a balance between personal needs and school/institutional needs. One teacher also found that, "too 'directive' (from EMB [Education Bureau] and the School) but not for self-interested CPD" (#33, School A, written statement in the CPD Questionnaire Survey, April 2006). Another teacher wrote,

"Sometimes school development needs would be obstacles to personal continuing professional development." (#25, School A, written statement in the CPD Questionnaire Survey, April 2006)

Hence, there seems to be some conflicts between personal needs and school/organizational needs. On this point, one teacher shared her feelings about participating in CPD activities. She expressed her frustrating situation that,

"It is common to encounter those obstacles about a balance between school needs and personal needs. Everyone has different levels of obstacles." (Teacher F, female, School A, Focus group interview, 13 July 2006)

Teachers' engagement in CPD might rely on both positive personal factors such as teacher commitment and motivation in teaching, and negative factors such as work pressure.

Financial factor

A total of 21.3% (N=10) of the teachers regarded financial factor as one of the factors that facilitated their CPD participation. Teachers of both schools were concerned about the availability of government or school subsidies to tuition fees of CPD courses and the provision of paid leave for engaging in CPD activities. Teachers also alerted that expensive tuition fees would be the major obstacle to participating in CPD activities. According to the result in the Chi-square test, it indicated that there existed significant difference between gender and financial factor that inhibits CPD (x^2 =6.846, df=1, p<0.05). There rooted a deep conception of that males are responsible for bearing the living of a family while females are expected to take care of the family.

CPD provider

A total of 6.4% (N=3) and 6.9% (N=4) of the respondent teachers respectively regarded CPD provider as facilitating and inhibiting factor that affect teachers' participation in CPD. The quality of CPD was an important issue affecting teachers' choice of CPD. Some teachers felt that the quality of CPD courses was too varied. Some teachers regarded that the contents of CPD activities should be practical and updated. Some of them also expected that the CPD provider should accommodate their time and provide suitable courses.

The quality of CPD activities is one of the teachers' concerns when choosing to participate or not. For example, this teacher talked about his experience in studying in a master degree programme, stating that:

"I got a master degree. But I think I still lack a recognized qualification. Then I study another master for my interest. If it's not my interest, I will take another master degree in another area.... I studied in University A, not I study in University B. ...Continuous studies may give you a lot of benefits but they may not motivate you. The most important thing is the quality of the course. ... at that time, when I studied in University A, the contents were not deeply explored. But University B's gives a deeper discussion on the topic." (Teacher K, male, School C, Individual interview, 21 September 2010)

The above teacher's experience reflects that the quality of CPD activities may be varied from different CPD providers and this affects teachers' motivation in participating in CPD.

Moreover, the provision of CPD activities is not regular. This causes teachers who want to participate in suitable CPD activities could not be satisfied. At the same time, when there is a lack of provision of appropriate CPD activities that cannot fulfil teachers' contextual needs, for example, when changing the curriculum, there is a need for teacher development to support the new curriculum. One teacher shared that:

"... when you want to have professional studies in certain areas, you wait and wait and there is no provision. ... it's dependent on the availability of the speaker or information. Because the new curriculum in 2004 has been carried out for five to six years. If there is still no change to the curriculum, then the provision of CPD activities is still ok at this moment." (Teacher Y, female, School C, Individual interview, 25 September 2010)

Teachers also considered the extent of the impacts of CPD activities on teachers and students. One teacher shared her successful CPD experience that:

"Actually the most important thing of CPD is to help benefit the teaching job. Actually you can know that when looking at student performance. For example, in the previous two to three years, the focus of CPD was on cooperative learning approach. We started to use this approach in the classroom since then. ... the mode of learning has been changed with the use of a variety of cooperative learning strategies. For example, we use envoy exchange for small group presentation instead of whole-class presentation. Students get more confidence in presentation and they get used to doing presentation and they naturally become more actively involved in the lesson." (Teacher E, female, School A, Individual interview, 25 August 2010)

This represents that teachers are more motivated to participate in CPD activities when seeing more positive impacts on learning and teaching and being able to apply what is learnt from CPD activities.

However, the geographical location of the provision of CPD activities is also considered as a factor affecting teachers' motivation to join CPD activities. One teacher shared that:

"Some teachers in Tin Shui Wai or Tuen Mun feel so difficult to get to the Hong Kong Institute of Education which is located in Tai Po. They really lose temper." (Teacher Y, female, School C, Individual interview, 21 September 2010)

The location of venues for CPD activities is an inhibiting factor that discourages teachers to participate in CPD while remote places discourage teachers to participate in CPD activities.

What else matters? Family? Relationship with others? Anyone else?

Apart from the factors of heavy workload, time, school and CPD provider factors, there were other perceived factors that could affect teachers' participation in CPD. These factors include family and relationship with others. A total of 6.4% (N=3) of the respondents regarded family factor as a facilitating factor in supporting teachers' CPD participation. The teachers responded that family support was important in the way that they could be free from burden and pressure in their own families. One teacher was concerned that,

"And we are in a whole-day school and we have our families. If there is really a need for CPD. There should be more resources and this thus helps release us to share work. We not only have jobs, we still have families who need us. There should be some space for us...fewer teaching periods." (Teacher K, male, School C, Focus group interview, 11 September 2006)

Teachers also felt struggled about the choice of participating in CPD activities due to workload and lack of time. For example, this teacher said that:

"...actually my workload is really very heavy. It may not be allowed for me to do much on CPD. I need to distribute time to my own family. I have my family and my children. I have to take care of them. So we always feel that time is not insufficient, or we are too tired, we feel very tired. So sometimes we feel that we cannot deal with the work although we really want to achieve the goals. Sometimes I feel I cannot handle." (Teacher J, female, School A, Individual interview, 17 August 2010)

At the same time, based on the result in the Chi-square test it indicated that there existed significant difference between gender and heavy workload (x^2 =4.826, df=1, p<0.05). Heavy workload was perceived to be a barrier for male teachers. It is noted that nine male teachers out of 24 teachers with ranking of APSM (i.e. middle management level) or above belonged to the middle management level, so their workload may be heavier than female teachers. At the same time, this is also probably related to role expectation in the Chinese society. There rooted a deep conception of that males are responsible for bearing the living of a family while females are expected to take care of the family.

Thus there seems to be a need for teachers a balance between school work and family.

A total of 4.3% (N=2) of the respondents mentioned about good relationship with others could helps facilitate CPD. These respondent teachers regarded that getting support from colleagues and friends, as well as harmony relationships amongst colleagues could help them release some pressure from having substitute classes due to participation in CPD activities within school hours. A teacher pointed out the importance of getting support from others, saying that:

"Actually the support also comes from colleagues. They do not complain about their extra work because of others having CPD within school hours." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

Besides, it is also interesting to note that in the questionnaire survey, one teacher responded that government encouragement was important in contributing to teachers' CPD participation. During the interview, some teachers suggested more resources be given by the government. For example, one of them proposed that:

"When teaching can be separated from administrative work... It is not the school to provide more space and time to us; it should be the EMB to give us more extra resources. The school can thus have more resources to support us." (Teacher Y, female, School C, Focus group interview, 11 September 2006)

On the whole, heavy workload, time, and school factors are major associated factors that affect teachers' participation in CPD. School factor tends to play a crucial influential role in affecting teachers'

participation in CPD activities. However, teachers' experiences in CPD participation seem to reflect that there is not sufficient support from school in encouraging and motivating teachers to engage in CPD activities due to inappropriate arrangement of time and manpower.

Summary

This chapter analysed the results of teachers' perceptions of factors that facilitate and inhibit teachers' participation in CPD activities. Although CPD for teachers in the study is seemed to be important in the previous two chapters, as shown in this chapter, there are some key factors that hinder them from participating in CPD activities. The facilitating factors included school factor, personal factor, financial factor, time, CPD provider, family factor, relationship with others and government factor. The inhibiting factors consisted of time, heavy workload, financial factor, CPD provider, school factor and personal factor. There existed minor differences in their perceived facilitating and inhibiting factors affecting CPD in the two schools. From the analysis of the data, major factors affecting their participation in CPD activities as perceived by teachers were the time and heavy workload that may be associated with school factor. Chapter Seven will further discuss the key findings in relation to the research questions and to the literature.

CHAPTER SEVEN

DISCUSSION

Introduction

This Chapter considers an interpretation of the findings in Chapters 4, 5 and 6 in the context of the aims of the study with reference to the literature. The following key themes are emerged and discussed in this Chapter: Discrepancies between the government CPD policy and teachers' perceptions, factors affecting CPD; CPD: external or school based?: Whose CPD needs? Government? Schools? Teachers?; Teacher collaboration and school as learning community; Student development: The core of CPD; Teachers as action researchers: Rhetoric or reality?; Higher academic study vs. student learning? and Other studies related to age, gender and years of teaching experience.

Discussion

Discrepancies between the government CPD policy and teachers' perceptions

This study indicated that teachers in this study had quite similar views to the government's Teacher Competencies Framework (TCF) in the CPD Document 2003 (ACTEQ, 2003) in terms of their perceptions of perceived professional development needs with the use of factor analyses. However, some CPD activities and domains did not correspond well with teachers' needs or interests in the reality. For example, although production of publications is included in the government's CPD framework, as indicated in this study, teachers regarded it as the least effective and least preferred CPD activity whilst schools very seldom provided teachers with chances to participate in this kind of CPD activity.

Very interestingly, the teachers in this study had the lowest CPD needs in the Professional Development and Services domain. This implies that the teachers did not feel the needs about professional development and services and had less concerns about educational administration. This may be related to teachers' indifference to political concerns about policies (Lau, 1997; Sweeting, 2008; Morris and Adamson, 2010) and lack of awareness of their responsibilities in the educational policy formulation and professional relationships and services. Teachers in this study expressed that formulation

of educational policies are not realistic to their classroom practice. Even though nowadays we are talking about 'decentralization' and 'accountability' that encourage teachers to participate in policy formulation under the School-Based Management (SBM) initiative since 1990s (Education and Manpower Branch and Education Department, 1991), they have been long accustomed to hierarchical relationships with the power and the meanings of SBM is not yet well-understood by teachers (Ng, 2003). In addition, based on the qualitative findings of the study, the teachers had limited involvement in school based management whilst they not often actively participated in the decision-making of school development in the reality. It may imply that teachers' role in education policy or management seemingly may be ignored or underdeveloped in the actual environment.

In this study, the discrepancies in the expectations between the government and teachers' perceptions imply that professional development needs of teachers were not well taken into account in generating the government's CPD policy framework and teacher involvement in the policy-making process of CPD policy is limited. However, ideally, every CPD policy aims to raise teachers' CPD levels. Teachers' voices should be thoroughly considered during the planning process of formulating an effective CPD policy (Wong, 1995). Teachers' individual needs should be supported by the government and school policy through 'on-going dialogue' amongst stakeholders (Day, 1999). Teachers are often 'marginalized' in the policy-making process and sufficient consultation is often absent (Wong, 1995). The effectiveness of such a kind of 'bureaucratic-managerial approach' to teacher CPD policy is under doubt (Vonk, 1991). This marginalized teacher involvement in policy-making raises the myth of teacher professionalism, in which teachers' professional status has been neglected in the policy formulation process. As a result, teachers' autonomy has been ignored and underestimated, and teachers' professional judgment is not properly recognized and addressed. In other words, teachers' professional judgment is subject to challenges and sceptical certainties. In the same sense, how can they discrete their professional judgment to the betterment of students? Is the CPD policy for the betterment or the distortion of teacher professionalism to student learning?

On the other hand, the finding of imbalance of the urgency for the needs of the development of teacher competencies in the Professional Relationships and Services domain and other CPD domains

represents that teachers cannot get sufficient exposure to the outside world (i.e. outside the classroom). Teachers' limited desire for participation in educational policies mean that educational policy-makers cannot get adequate information to suit the needs of students, teachers and schools as teachers are the frontiers who work closely with schools and students in the field of education. Hence, teachers' role in community service should be re-positioned where the government should give schools more guidelines on teachers' participation in community service and voluntary work. The value of community service as CPD should be clearly explained and illustrated to teachers by different means, i.e. in the school context, rather than in an irrelevant or isolated context from the school, where encouragement should be given to let teachers feel the need of community service for their personal and professional growth for the sake of themselves and their students.

CPD: external or school based?

According to the finding of the frequency of teachers' CPD participation, teachers' CPD activities were mostly provided by the external CPD providers, such as higher academic study, local/overseas conferences, workshops, courses, rather than provided by schools themselves. At the same time, some responses from teachers showed that the provision of the CPD activities were not relevant and did not fulfill their expectations and needs. Therefore, there should be a review by the government to examine and monitor the relevance and quality of current available CPD activities as organized by external organizations.

On the other hand, even some school based CPD activities are provided for teachers, such as peer observation and co-planning, some teachers in this study mentioned that the activities were related to school appraisal system which accounted for their performance, rather than developmental purpose. Teachers' motivation to participate in CPD activities and incentives to improve themselves may be lowered. Therefore, schools should set up a mechanism for teachers to have opportunities to share and apply what they have learnt from external CPD activities in the school context. There should be a closer connection to the development for centralized CPD activities and school based CPD activities so as to make them more interactive and complementary to each other (Ng, 2003).

Whose CPD needs? Government? Schools? Teachers?

Teachers in this study valued CPD that was directly related to their practice in the classroom. This confirms that the findings in the literature that CPD activities related to classroom practice are preferred by teachers (Clarke, 1994; Nisbet, 2004). However, it is found in this study that teachers' CPD needs were not based on their own professional growth, instead, their orientations to CPD activities were in accordance with external requirements from the government and their working schools. In other words, teachers' choices of CPD activities were policy-oriented and they took part in the CPD activities for the purpose of acquiring knowledge and skills for fulfilling certain official requirements and demands. In the study, teachers' preferences of CPD activities were based on the new educational initiatives by the school and the government, for example, Chinese and English language teachers preferred academic studies that help them acquire the benchmarking of language requirements as imposed by the government. The government control upon teachers' professional status through entry requirements in fact creates 'piecemeal' and 'competence based' training that is not 'compatible with the aim of achieving comprehensive and ongoing professional development for teachers' (Ng, 2003:669). It implicitly reflects that the teachers neither have any overall personal professional development planning nor treasure the values of CPD to themselves as lifelong learners.

Teachers in this study preferred higher academic study the most while seminars or workshops are the second most. It reveals that teachers tended to look for 'experts' outside their workplace to fufill their needs in this kind 'one-off' mode of CPD activities. Interestingly, the teachers in this study showed a desire for more practicality, including collaborative activities, in choosing CPD activities but they did not perceive themselves as 'experts' in facilitating students' learning (Senge, 1996). This finding is consistent with what the literature found that CPD in Hong Kong is peripheral and ad hoc (Ng, 2003). Ng (2003) explained that teachers' participation in CPD activities is only based on a 'plateau approach' rather than developmental approach as teachers in Hong Kong do not really need to continue their participation in CPD activities for sustaining their professional ladder for linkage between continuous learning and career path.

Obviously, there is an imbalance in teachers' CPD needs in terms of personal and professional growth. Teachers in the study did not mention about their personal needs. Instead, obviously, teachers' CPD needs are all related to knowledge and skills that belongs to the technical aspect of student development as well as learning and teaching, for example, how to cater for individual differences of students while non-technical aspects of teacher personal growth, such as personal health and relaxation were not mentioned in the study.

Moreover, as reflected in the findings of the study, an imbalance in the teachers' CPD needs is found within the four CPD domains. Teachers' CPD needs in the professional services and relationships and school development domains were comparatively low. Ironically, no teachers in this study mentioned that their CPD can be helpful to school improvement and development. Hence, teachers' perceptions and understanding about CPD are limited and bounded to a narrow perspective, that is, practical use in the classroom.

In this study, teachers' orientation to CPD is based on a deficit approach instead of a long-term developmental approach (Ng, 2003). It should be remarkably noted that this deficit approach is criticized for being inconsistent with adult learning principles and opposed to building the conditions of shared purpose, infrastructure and domains for action that schools to become effective learning organizations (Senge, 1996) and a more developmental approach should be promoted and encouraged in the professional learning communities, i.e. schools. Failing in matching the needs and interests of CPD between the teachers and the school may contribute to the ineffectiveness of CPD activities (Day, 1999; Fullan and Hargreaves, 1992; Chan *et al.*, 2008). The needs and interests of the teachers should thus be taken into consideration in the school-based CPD planning. Mushayikwa and Lubben (2009:375) conclude that teacher empowerment should be fostered by encouraging them to 'take the initiative in identifying and acting on their own individual needs.'

Factors affecting CPD: School? Heavy workload? Time?

Chan *et al.* (2005) found that different schools are at a different pace in implementing a school-based CPD policy. This is similar to the finding in this study that teachers of different schools had different

degrees of participation in CPD activities. In this study, it is found that the school factor was found as an influential factor affecting teachers' perceptions of CPD activities and professional development needs of teacher competencies, together with the facilitating and inhibiting factors affecting CPD. This finding is in line with the literature that highlights the role of school as learning community in supporting CPD to teachers (ASCD, 2002; Guskey, 2003), whereas schools play important roles in shaping CPD by giving a supportive environment for teachers to build on their strengths and stretch their strengths and potentials (e.g. Loucks-Horsley *et al.*, 1998). Similarly, Carre (1993) and Lave (1993) also observed that the organizational culture of the school will also affect teacher progress, whereas 'culture' is well-defined as 'people in the organizational setting, characterized by the ways in which values, beliefs, prejudices and behavior are played out within the micro-political processes of school life' (Day, 1999:78).

The ACTEQ Study 2007 (ACTEQ, 2009) found that the contributing factors to teachers' participation in CPD activities include trust and support from the school management, an open and collaborative atmosphere in schools, respect for and sensitivity to teachers' diversity, schools' support for appropriate arrangements in terms of teachers' workload, facilities and time, etc. and these factors are all related to the school. This is in alignment with the finding in the responses from the teachers in the study where the school factor was found to be important to back up teachers' participation in CPD while this seemed to be an associated factor with heavy workload and time.

Many empirical studies also indicated that time and workload are common critical factors that teacher encounter in CPD (for example, Carney, 2003; Day et al., 2007). In this study, heavy workload and time are two of the major factors inhibiting teachers' CPD. The two concepts 'heavy workload' and 'time' are always associated with each other while school support is found to be important in encouraging teachers to participate in CPD. It is commonly found that Hong Kong teachers are facing heavy workload and not provided with sufficient 'space' to ensure their involvement in CPD (Ng, 2003), whilst creating space for teachers is always heard from teachers (see ACTEQ, 2006). Although schools are intended to be learning communities, teachers' daily teaching work provides limited opportunities for their own learning (Day, 1999). Heavy workload is considered as a common problem for public education as a result of a stressful environment that discourages teachers from participating in CPD in their busy

professional lives (Quaglia et al., 1991; Day and Gu, 2010).

At the same time, time for teachers' CPD is actually rooted in commitment, beliefs and attitudes about teachers' work and buried in current school structures and policies (Hargreaves, 1994; Watts and Castle, 1993; Aeillo and Watson, 2010). Time is thus essential to the provision of planned and structured professional development activities (for example, Little, 1990; McIntyre and Hagger, 1992; Eraut, 1994). It is also critical to look for possibilities to think about, criticize and develop existing practice (Carney, 2003). The lack of time for planning, collaboration, peer coaching and mentoring, poor or misdirected leadership and the culture of teaching are all cited repeatedly as potential constraints on professional development (see for example, Lortie, 1975; Rosenholtz, 1989; Lieberman, 1995). As Hargreaves (1997:119) concludes,

'There is no positive change without time to understand it and undertake it. Absence of time isolates teachers from their colleague when they most need to be alongside them – in teaching situations as well as talking and planning ones. And isolation, we have seen, keeps quality low.' Releasing time is therefore important to support teachers' CPD and there should be a balancing time in and out of the classroom.'

It is therefore important that schools should pay attention to teachers' lives, their learning and development needs and working conditions as well as those of the students they teach (Day, 1999). The provision of time and opportunity as well as the dispositions and abilities of teachers to learn from and with one another inside the workplace and from others outside the school should thus be carefully taken into account in supporting and sustaining teachers' continuing professional development (Day, 1999; Putnam and Borko, 1999).

Nevertheless, lack of time and heavy workload may be related to teachers' perceptions of CPD. Teachers in this study preferred and participated in higher academic study the most. These CPD activities are actually outside school hours. On the contrary, teachers' participation in school-based CPD activities is comparatively less. Due to teachers' higher demands for external CPD activities, teachers have to use their 'extra' time in dealing with external CPD activities which are provided by external organizations such as tertiary institutions and Education Bureau instead of school-based CPD activities. This may impose an obstacle that teachers found it difficult to match their teaching schedules with the external CPD activities.

Other studies related to age, gender and years of teaching experience

Another noteworthy result of this study is that age and years of teaching experience were found to be inter-related demographic factors affecting teachers' preference and perceptions of the effectiveness of CPD activities. But teachers' participation was not related to these two demographic factors. There was no evidence that demographic factors like gender, the highest academic qualifications, teaching rank are related to teachers' perceptions of CPD activities. According to Day et al (2007)'s study, there was little association between variations in teachers' overall view of CPD and their ages. In comparison with their younger colleagues, teachers in their 40s and 50s were slightly more negative about the time they had to reflect on their teaching and to learn with their colleagues. However, teachers in their 50s reported a more positive attitude, although only marginally, towards the opportunities and balance of CPD. Younger teachers on this project in age range 21-30 appeared to be the most satisfied with the overall focus and quality of CPD.

However, it was found that gender played an important factor affecting teachers' perceptions of the factors affecting CPD, whilst two significant differences were found in between gender and financial factor as well as gender and heavy workload. This may be due to the traditionally assumed roles in the Chinese society, that is, females need to cater for the family while males go out to work. According to Day et al. (2007)'s study, overall, male teachers were slightly more likely to be satisfied with their CPD opportunities, and the quality and balance of what was offered, than their female counterparts. Although both female and male teachers were highly dissatisfied with the time they had to reflect on their teaching and to learn with and from colleagues, females appeared to have a slightly more negative attitude than males, though this was not statistically significant.

Interestingly, the school that teachers worked in was also found to be a determinant factor that affects teachers' perceptions of the factors affecting CPD, in which significant difference was found in between school and heavy workload. On the whole, the findings of this study give us more understanding about teachers' understanding of CPD and their current issues and problems that are encountered in

participating in CPD activities. Teachers' experiences are varied from different school contexts. Day *et al.* (2007:153-154) gives a good conclusion that:

'CPD alone is unlikely to exert a major impact on teacher effectiveness. It needs to take place within professional, situated and personal contexts, which support rather than erode teachers' sense of positive identity and which contribute, in each professional like phase, to their capacities to maintain upward trajectories of commitment. The analysis of the influences on teachers in different work contexts revealed that there clear differences in the experiences of primary and secondary teachers, and between those in schools in different socio-economic contexts. While almost all teachers referred to deteriorating pupil behaviour and the impact of central government initiatives on workload and class composition, it was those in schools in areas of social and economic deprivation who referred to these more frequently and to associated problems of demoralization, failing energy and ill health. ... For primary and secondary teachers in schools in social and economically disadvantaged contexts, work is exacting.'

Seeing that demographic characteristics may influence teachers' perceptions of CPD activities and factors affecting their CPD participation, further study should thus be carried out for deeper investigation and exploration.

Teacher collaboration and school as learning community

It is found that teachers in this study showed positive attitudes towards the importance of collaboration (Hargreaves, 1994). This finding is consistent with that in ACTEQ Study 2007 (ACTEQ, 2009) which showed that school-based exchanges of teaching experience were perceived to be more effective. At the same time, this finding is in alignment with ACTEQ study (2005) which explored that informal or unstructured collegial sharing and observations among teachers during daily teaching were regarded as the two most useful CPD activities that could help teachers accumulate valuable experience (ACTEQ, 2006). Teachers in this study expressed that those CPD activities such as peer class observation and co-planning were already welcomed as they recognized their usefulness and meaningfulness to their professional growth while collaborative learning occurs in the community that encourages sharing practice with each other (Little, 2001; Day et al, 2007). Peer class observation was regarded by teachers as the most effective CPD activity, in which they can have opportunities to learn new teaching skills for practical use and share with others in the post observation conference. This exactly corresponds with what Estebaranz et al. (1999) discuss the benefits of peer lesson observation, stating that:

'Learning by observation enables the individual to generate and regulate patterns of behaviour, and thus has a great effect in the practice of teaching. Teachers, during group work, are immersed in networks of professional relationships. The opinions and behaviour of those enjoying the same professional status have a great effect in the dissemination of the practices adopted by certain members of the group.' (p.135, in original italics)

Although teachers in this study realized the importance of peer observation for its practicality in classroom use through sharing, they did not mention if 'critical discourse and engagement' occurred in their own experience whereas the literature claims that critical discourse is claimed to be useful to teacher learning through reflection and sharing (Carney, 2003). Ng (2003) criticized that genuine and frank sharing of views in the post lesson observation conference was seldom found in the Chinese culture. However, the real situation about how peer observation in the school has been conducted in generating professional dialogue and discourse is not yet explored in this study.

On the surface, 'learning community' seemed to be formed in which teachers learn from each other through co-planning, co-teaching or peer observation as based on the definition made by Lave and Wenger (1991:98), claiming that communities of practice are 'a set of relations among persons, activity and world, over time and in relation with other and overlapping communities of practice'. However, from the responses of the teachers in this study, collaboration is bounded to be either co-planning period as set by the school head or peer class observation set as one part of school appraisal policy. On this point, Lam et al. (2002) reminds that there should be a detachment between staff appraisal and teacher development due to formation of greater teachers' psychological pressure as a result of performance judgment. Rather, the purpose of peer observation should be for the purpose of support and transformation in a mature and trusting atmosphere (Aubusson et al., 2007). This kind of collaboration is most likely a kind of artificially created collaboration. Day (1999) describes this kind of collaboration as 'contrived collegiality' that is about the working relationships in a form of culture of being 'not spontaneous, voluntary, development oriented, but fixed in time and space and predictable' (Hargreaves, 1994). So there is still a need for further developing 'collaborative cultures'. Day (1999:80) describes that in 'collaborative cultures,' working relationships are likely to be: spontaneous, voluntary, development oriented, in which teachers exercise discretion often initiating tasks or responding selectively to external demands.

In fact, although collaborative CPD activities can be helpful to inspire significant professional

development for teachers (Aiello and Watson, 2010), there is still a long way to the goal of 'real' collaboration. In this study, teachers' preference of collaborative forms of CPD activities greatly varied from each other, i.e. peer class observation, co-teaching, etc. It reflects that not all collaborative forms of CPD activities were welcomed. It further implies that whether collaborative cultures have been well-established or not is not yet sure whilst teachers truly treasure the value of collaboration or not is also not certain as well. Fullan (2004:120) described that 'in collaborative cultures, sharing and support create trust, feelings of collegiality and professionalism, greater capability and continual improvement.' As suggested by Little (1987), there should be a high degree of professional collegiality in supporting such kind of collaboration, consisting of: 1. teachers talk together about teaching practice; 2. teachers jointly plan and solve problems related to their teaching, 3. teachers learn together and 4. teach one another, teachers observe and discuss each other's practice, as supported by two necessary conditions, including: i. interdependence – teachers must believe that interaction with colleagues is essential to being an effective teacher; and ii. opportunity – the school organization must provide ongoing opportunities and support for collaborative work. These two conditions thus must be clearly presented to teachers to support collaborative work among teachers. Stoll and Louis (2007:2) conclude that:

'It is ... generally agreed that effective professional learning communities have the capacity to promote and sustain the learning capacities of professionals in a school with the collective purpose of enhancing student learning.'

As concluded, this study remarks a gradual shift of paradigm from 'balkanization' to 'collaboration' after some years of curriculum reform that emphasizes the enhancement of collaboration through different collaborative forms of CPD activities, such as co-planning and peer class observation. However, there is still space for further development of real collaboration. The learning community of teachers should be further developed as a network in which teachers can be engaged in free talk of pedagogical practice instead of just being involved in a fixed co-planning period or peer class observation. School communities of practice always appear to be limited in the mainstream of individual teachers (Carney, 2003) and they should be characterized by mutual engagement, joint enterprise and a shared repertoire (Wenger, 1998). McLaughlin and Zarrow (2001: 91) further elaborate that:

'communities of practice have become communities of explanation by virtue of their collective inquiry; they also are learning communities where reflection about current practice and habits of inquiry prompts change at schools and classroom levels.'

Inquiry form of professional development should be further developed through a network where collaboration is sharing, resources support in a social process of active participation in inquiry (Wenger, 1998; Guskey, 2003).

Student development: The core of CPD

A very encouraging finding of this study was that teachers showed their concern about student development for their CPD. Teachers had the highest CPD needs in the Student Development domain. The impetus for CPD lies in the recognition of enhancement of student learning through teacher professional development. This study indicated that teachers were concerned about student development the most, implying that teachers recognized the value of CPD to education where students are at the centre of education. In the literature, teachers are supposed to be committed to CPD for student learning although CPD is just an indirect way to achieve this goal. In other words, at the core of education, teachers are profoundly devoted to student learning where students are at the centre of teaching and learning. This may be related to a feeling of loyalty to students (Gray, 2005) and therefore some teachers are likely to avoid their personalized CPD activities and prefer face-to-face contact with students. This suggests a common perception of an 'ideal' type of teaching professional (Gray, 2005).

In this study, teachers held consistent views towards the importance of CPD to school improvement and student learning. This is also consistent with the view held by ACTEQ, claiming that:

'CPD is a crucial means to help teachers develop their capacity to learn and investigate so as to improve their practice, and is an indispensable process in bringing about sustainable school development, ultimately for the improvement of student learning' (ACTEQ, 2006:1).

There is a general consensus between teachers and CPD policy with the view that teachers' CPD should be an essential part of a teacher's professional life (ACTEQ, 2006:18). This finding is also consistent with ACTEQ Study 2005 (ACTEQ, 2006), in which teachers held similar views that teachers' CPD is helpful to student learning. Such a view represents that teachers' knowledge of students is as significant as that of practical knowledge, in which 'practical knowledge resides in the minds of teachers' (Mayer and Marland, 1997:17).

Higher academic study vs. student learning?

In this study, it was revealed teachers perceived that higher academic study was the most effective and the most preferable CPD activity. In addition, teachers participated in higher academic study the most. However, how does higher academic study directly improve student learning? There is little rigorous evidence that higher academic study is systematically related to student achievement (Goldhaber and Brewer, 2000; Darling-Hammond *et al.*, 2001). Even so, as indicated in this study, teachers highly preferred higher academic study and spent a lot of time on it. The incentive for higher academic study is for teacher learning so as to enhance student learning. The time spent on higher academic study is so vast that teachers may lack time in handling teaching and learning issues. At the same time, heavy workload and lack of time are major barriers to their participation in CPD activities. It is sceptical that the effectiveness of students' learning may be weakened or undermined as students are deprived of getting sufficient care or guidance from teachers while heavy workload and big class problems have imposed 'bottle-neck' problem causing deteriorating the teaching quality (Cheng, 2009). In other words, this may result in the lowering the chances for students to enjoy good quality education.

Teachers as action researchers: Rhetoric or reality?

The notion of teachers as action researchers (Elliott, 1991) has been widely accepted and action research has been highlighted as one kind of professional development opportunity. However, as indicated in the study, this concept is not yet rooted in teachers' minds and teachers in the study did not consider themselves as a researcher. Teachers in this study seemed to neglect the importance of research and dissemination while the school provided few chances for them to conduct research. This contradicts Stenhouse's (1975) idea of 'teachers as researchers', who are expected to be actively involved in solving pedagogical problems in their daily teaching (Gordon, 2004). Burton and Mickan (1993:115) explained that teachers rejected conducting research in the classrooms as teachers saw their role is 'to teach, which is a practical and hectic activity' and 'this role does not include research, so that the resources and time for research are not a normal part of teachers' working conditions and teachers do not consider themselves as members of a research community. From the responses of the teachers, it is

showed that teachers did not find immediate use of research for supporting their teaching work directly and they do not realize research can be a kind of professional development for them. The 'action research' concept is weak in teachers' minds. But there are some constraints as explored in this study. They include: first, the culture of using action research for inquiry into learning and teaching is still underdeveloped. This is revealed in the fact that there are limited opportunities for publication and reporting and discussion research in the schools. Teachers hence work in the school environment that does not encourage research. Day (1999) criticized that schools are intended to be learning communities but teachers' daily teaching work provides limited opportunities for their own learning.

Second, teachers in this study did not realize themselves as experts in doing research and lacked confidence in doing so. This is consistent with Burton and Mickan (1993), who elaborated that teachers' classroom research is always subject to professional researchers' criticisms. So this kind of research is not valued or regarded as serious research because it is more contextualized, descriptive, applied and anecdotal in style.

Third, teachers in this study expressed their unwillingness to do research because doing research is not their job and it requires them to use much time and efforts. This is consistent with what Allwright (1993:125) said:

'it seems to have become almost commonplace for people to advocate that teachers should become researchers in their own classrooms. However, teachers who are attracted to the idea in principle face the risk of discovering the hard way that research can be an unacceptable burden to add to those they are already suffering from in their daily lives as classroom teachers.'

The idea of teachers as researchers is still at a periphery, under-developed stage and there should be more to do to build in this idea in the dominant culture of the school and there should be more explorations of how to support and obtain commitment of teachers as researchers.

Therefore, there should be more to be done to foster a learning culture for developing teachers' mindsets in using research for informing their classroom practice. In fact, the role of the principals as leaders is found to be an influential factor in supporting teachers in generating teacher learning and support (Day, 1999; Aiello and Watson, 2010). In order to empower teachers in response to the changing needs of the context and sustain school improvement and development (Hallinger, 2003; Tang *et al.*, 2010), it is essential for principals to get involved in the learning process in order to let them recognize the

specific context of the study and to give due weight to the passion of the individuals involved (Aiello and Watson, 2010). Therefore, there should be a creation of a learning culture within schools that promote and reinforce teachers as learners and insider action researchers. Teachers should be supported and given chances to engage in sustained processes of reflection, collaboration and inquiry (Day, 1999; Eraut, 2001; Tickle, 2001). Shulman (1997:101) reminds us that the potential of teacher learning relies on:

The processes of activity, reflection, emotion and collaboration [which] are supported, legitimated, and nurtured in a community or culture that values such experiences and creates many opportunities for them to occur and to be accomplished with success and pleasure.

To conclude, commitment from both teachers and principals should be taken into consideration in developing professional learning communities where the value 'teachers as action researchers' and 'teachers as learners' should be well recognized and addressed (Senge 1991; Day 1999; Wenger and Snyder, 2000).

Summary

This chapter discussed the key findings concerning the research questions and to the literature. CPD in general is recognized as important to student development. However, it is found that there exist some gaps between the current CPD implementation and the intentions of the CPD policy. Teachers faced challenges and obstacles in CPD participation. Their concerns and needs for CPD are mostly driven by the external factors such as government policies or school demands.

The next chapter will conclude with implications and insights for practitioners and policymakers. Limitations of the study, future research possibilities and personal reflections will also be discussed in the next chapter.

CHAPTER EIGHT

CONCLUSION AND IMPLICATIONS

Introduction

This Chapter is to summarize the key findings in relation to the research questions of the study. The Chapter mainly discusses policy implications and personal insights and professional learning as gained from this study. It is hoped that this last chapter can be useful to the government, administrators, schools, teachers, educators, and educational organizations to promote teachers' professional development for the betterment of education in the schools. Future research possibilities are also presented at the end of the chapter.

Key Findings

This multi-method study, with the use of quantitative and qualitative methods, was conducted in three primary schools in Hong Kong to explore primary school teachers' perceptions and experiences of continuing professional development (CPD) in Hong Kong, focusing on teachers' perceptions of CPD activities and professional development needs of the teacher competencies as listed in the Teacher Competencies Framework (TCF) in the CPD Document 2003 (ACTEQ, 2003), as well as their perceptions upon facilitating and inhibiting factors affecting their CPD participation. In order to accomplish these purposes, one central research question emerged: What are teachers' perceptions of CPD activities and their professional development needs and what factors affect their CPD participation?, which is accompanied by the following four sub-questions to guide the study:

- Do teacher preference, participation and perceived effectiveness vary in different CPD activities?
- 2. What factors influence their perceptions?
- 3. What are teachers' professional development needs?
- 4. What are teachers' perceived factors that facilitate and inhibit teachers' participation in continuing professional development?

With regard to teachers' preference in CPD activities, teachers had different views about their preferred CPD activities, depending on the unique experience teachers had in their school contexts. Both the quantitative and qualitative evidence indicated that teachers preferred higher academic study most but they put production of publications as CPD at a relatively low rank of preference. Writing a publication was seen as a kind of marginal work for them.

Concerning teacher participation in CPD, this study showed that the degree of teacher participation in CPD activities varied from different school contexts but it corresponded with the frequency of the school provision of CPD activities for the teachers as discussed in the earlier part. The quantitative and qualitative findings indicated that teachers participated in higher academic study most but participated in production of publication the least. This further reveals that teachers' participation in CPD activities is in response to teachers' preference of CPD activities.

Regarding teachers' perceptions of the effectiveness of different kinds of CPD activities, the findings evidenced that teachers had consistent views upon the CPD activities across their preference, participation and perceptions of their effectiveness. The quantitative and qualitative findings indicated that while teachers perceived both higher academic study and peer class observation as the most effective CPD activities. Although higher academic study is a traditional form of CPD activity, it is still welcomed by teachers. At the same time, peer class observation is a kind of collaborative alternative form of CPD activity, it implies that collaborative form of CPD activities is becoming accepted by teachers. However, in this study, doing a publication is a lowly recognized CPD activity. Teachers in the study regarded that their schools very seldom provide teachers with chances to participate in production of publications, which was perceived as the least effective and least preferred CPD activity.

In the research area regarding teachers' perceptions of their professional development needs, this study used factor analysis, i.e. principal components analysis, to identify key domains in the teachers' perceived needs of teacher competencies so as to compare with the new CPD government framework (ACTEQ, 2003). The aim of doing so was to identify whether there are any gaps between the government

framework and the teachers' perceptions and to draw implications and make recommendations for the current new CPD policy.

Four CPD domains of teachers' perceived needs were extracted from the factor analysis, comprising: School development, Teaching and learning, Student development, and Professional relationships and services. Teachers had the highest CPD needs in the 'Student Development' domain. On the other hand, they had the lowest CPD needs in the 'Professional Relationships and Services' domain. Teachers in this study showed their concern about student development for their CPD. Teachers had the highest CPD needs in the Student Development domain. Teachers had the lowest CPD needs in the Professional Relationships and Services domain. Teachers consistently expressed their indifference to educational policy formulation and professional relationships and services.

Regarding teachers' perceptions of factors affecting their CPD participation, in this study, the facilitating factors were categorized under six themes, namely, school factor, personal factor, financial factor, time, CPD provider, family factor, relationship with others and government factor. Personal factor was regarded as the most important facilitating factor affecting CPD by School A teachers. However, School C teachers held different views, whilst they considered school factor and financial factors as the most important facilitating factors contributing to CPD.

Meanwhile, the inhibiting factors were categorized under six themes, namely, time, heavy workload, financial factor, CPD provider, school factor and personal factor. Heavy workload was the most inhibiting factor affecting CPD to School A teachers, whilst School C teachers regarded time factor as the most inhibiting factor affecting their participation in CPD. It is noted that heavy workload, time, and school factors are major factors that affect teachers' participation in CPD. This finding is consistent with that of the results in previous chapters concerning CPD activities and teacher competencies, whilst the school factor plays a crucial influential factor affecting teachers' participation in CPD activities.

There existed minor differences in teachers' perceived facilitating and inhibiting factors affecting CPD in the three schools. For School A teachers, workload was the most inhibiting factor affecting CPD, whilst personal factor was the most important factor contributing to their CPD. However, for School C

teachers, time was the most inhibiting factor to them, whilst school and financial factors were regarded as the most important factors contributing to their CPD.

School factor was found as a determinant factor affecting CPD. It was found as the most influential factor affecting teachers' preference, participation and their perceptions of the effectiveness of CPD activities. However, there was no evidence that demographic factors like gender, the highest academic qualifications, teaching rank are correlated to teachers' perceptions of CPD activities in terms of preference, participation and perceived effectiveness. It was only found that age and years of teaching experiences are related to teachers' preference and their perceptions of the effectiveness of CPD activities. In planning CPD programmes or activities, there is a need to take these two demographic factors into consideration. This finding implied that teachers in different schools with different school cultures most likely may have had different CPD experiences that affected their preference, participation and perceived effectiveness.

Apart from the above, there was no correlation found in between demographic characteristics (i.e. gender, age, the highest academic qualifications, years of teaching experience, teaching rank and school) and teachers' perceived facilitating factors affecting CPD. However, there existed significant differences between gender and financial factor as well as gender and heavy workload respectively. The inhibiting factor 'heavy workload' ranked relatively higher for male teachers. Another significant difference was found in between school and heavy workload. This reflected that workload may be varied in different school contexts.

Implications for Policy and Practice

On the basis of the findings and discussion of the study, implications and issues for policy and practice are discussed in the following:

For the Government

Aiming at improving the current situation, the government should assess the policy governing teachers' CPD. Their role should switch from bureaucrats who aim at achieving organizational goals, to

facilitators who genuinely should show its commitment on the CPD of teachers, in a way to create the space needed by them. If the government is not considering teachers' CPD as peripheral, it may need to re-adjust the financial resources in different aspects in education so that more emphasis is put on teachers' CPD.

A systematic policy to include teachers and schools as active participants in CPD should be developed. More teachers should get involved in formulating educational policies so that genuine and effective changes can take place. It is vital to unite the policy-makers with the frontline workers in order to balance their conflicting interests and fulfil their diverse needs.

CPD should be adopted with the use of a 'soft-landing' approach from the outset (ACTEQ, 2006), i.e. not to impose any rigid requirements or a set of regulations on teachers, but to achieve a basic common understanding so that CPD can be affirmed as a shared goal among professional teachers. This is "to facilitate the realization of the spirit of the teachers' CPD framework: trust in and reliance on the professionals, and hence teachers' professional autonomy and school-based decisions in CPD-related matters" (ACTEQ, 2006:30).

The government should help establish a culture of sharing and learning among teachers and schools, which is conducive to their active participation. The Education Bureau may establish cluster networks or e-platform among schools in the same district in order to let teachers have more opportunities

The Education Bureau should consider a further study to monitor the emerging trends in professional development service provision and identify quality providers in other priority areas of school practice.

There should be consideration to developing a good classroom research and practice publication to inform teachers of the application of effective learning principles and practice, and to reinforce the fact that teachers are often themselves the source of best practice.

Policy-makers, organizations concerned with initial teacher and in-service training and schools themselves should review their provision so that it is relevant to the specific needs of teachers who work in these contexts, in different professional life phases and in different scenarios (Day *et al.*, 2007: 155).

There is also a need to educate policy-makers about the meanings of CPD with a sustained and developmental view of professional development, taking different forms of CPD that allow for

collaboration, inquiry and reflection.

For school principals and school middle managers

In order to sustain a learning organization, school leaders must create a climate that promotes the continuous professional learning of all school participants (O'Sullivan, 1997). Collegiality among teachers should be promoted so as to facilitate cross-fertilization of ideas and experience. Encouragement from the school should be given to teachers to participate in CPD. Middle managers, including subject panel heads, department heads etc., should recognize the importance of CPD. Middle managers should be clear about the schools' and teachers' needs in continuing professional development such as the middle management in schools (Wong, 2005). There should be coordination in CPD planning and implementation across classrooms, subject departments and the school as a whole appeared so as to provide opportunities for the individual classroom to be enlarged and for the individual development needs and processes of teachers (Carney, 2003). Teachers can thus be more supported within the school's overall development agenda. Further, it should be aware that effective professional development should provide teachers adequate chances to try new ideas and strategies, with feedback on practice, sufficient technical, psychological and administrative support, and opportunities to gain a conceptual understanding of the underlying rationale (Ingvarson, 1987). A collaborative sharing and learning culture should be further continuously promoted through organizing and providing opportunities for real professional development opportunities where teachers feel their ownership of professional development and their needs are inquired in collegial interaction and support within school.

Moreover, there should be balanced CPD opportunities for teachers. Schools should not just provide CPD for school development; meanwhile, schools should suit and satisfy teachers' personal needs of teachers. In support of sustaining teachers' professional development opportunities, there is thus a strong need for a structured professional growth plan as discussed and compromised by teachers and administrators, in which teacher personal professional growth plans may provide an opening to build up collaboration and enhance collegiality (Fenwich, 2004).

Another important concern is about the relationship between school appraisal and CPD. Based on this study, some teachers had CPD records in their own appraisal and peer observation was done for

appraisal purpose. CPD, by its nature, should be used for encouraging learning and sustainable development in making improvement in schools and classrooms. If CPD is focused on accountability and performance and is inclined to high-stake orientation, it will not help teachers to develop themselves as lifelong learners who continue to improve themselves for ongoing improvement in their teaching and enhance school development. There should be a school based review about the CPD policy and appraisal system, including how to make use of the CPD records and whether peer class observation is used for appraisal or there can be other ways for encouraging peer observation.

But most importantly, as reflected in the study, time and heavy workload should be taken into account in school based CPD policy-making process. Creating space for teachers' CPD is a very common term but it is not always achieved. Careful arrangement for teachers' CPD should thus be made by different kinds of supportive administrative arrangements such as timetabling, financial support and resources provision.

For CPD coordinators

This study also provides CPD coordinators with fruitful data to identify where teachers are and so forth attempt to meet their CPD needs.

CPD coordinators should give immediate sensitive responses to teachers' CPD needs of the development of teacher competencies, with reference to the findings of this study.

When planning CPD activities, CPD coordinators should be aware of teachers' preference of CPD activities, based on the findings of this study. Opportunities for school based CPD activities such as peer observation and co-planning should be given to teachers who realized that school based CPD activities are effective in helping them in supporting their classroom practice in a more direct way.

CPD coordinators should promote collaboration opportunities to colleagues in order to build up a sharing and learning cultures.

CPD coordinators should promote collaborative action research that teachers can jointly participate. Before doing so, they should let teachers understand the rationale behind doing collaborative action research.

CPD coordinators should plan carefully and take the teachers' perceived factors affecting CPD in

the study into considerations. They should address teachers' concerns and difficulties about their CPD participation. As noted in this study, there are urgent needs for providing sufficient time and resources for supporting teachers' participation in CPD activities.

For further study

This study used a multi-methods approach to illuminate teachers' perceptions about CPD and provide a better understanding about teachers' experience in CPD. It has provided a framework to further study about teachers' preference, participation and perceived effectiveness of CPD activities and teachers' perceived needs. The current study also provides a framework to further study about teachers' perceived needs of CPD domains. Teachers and schools need to know more about how CPD help them develop teachers' professional knowledge, skills and careers and how teachers' CPD can enhance student learning. The following are suggestions for further study.

- 1. This study should be replicated with other populations to explore teachers' perceptions of CPD.
- This study is a small scale study. It can be applied to other schools in Hong Kong for further investigations of teachers' perceptions of CPD in Hong Kong. The findings will be a good reference for education policy-makers and other stakeholders in education.
- This study can be a longitudinal study comparing with the findings of the current study in order to further understand teachers' needs for CPD in the changing world.
- 4. The relationship between some demographic factors like gender and years of teaching experiences can be further investigated in another study.
- 5. Further study can be conducted to examine relationships amongst teacher confidence, satisfaction and perceived needs in the development of teacher competencies.
- 6. As found in this study, higher academic study was perceived as the most effective to teachers' CPD.
 But there are just very few studies about this area in relation to student learning. So there can be a further study in studying the relationship between higher academic study and student learning.

Limitations

The major limitation of this study was that teachers in this study were from three primary schools from one school district. As a result, the findings of this study may not be generalizable to teachers from other primary schools or secondary schools or for other districts. Moreover, due to lack of time factor, field notes or other secondary data were not used in this study while other stakeholders were not involved in this study. As the interviews were carried out in the busy months, that is, July and September, this may affect teachers' willingness in giving more responses to the interviews. Besides, the culture of the three schools was also not thoroughly understood in investigating the CPD development in these schools.

Significance of the Study

While it is necessary to acknowledge that conclusions have to be drawn with caution since this study did not involve a large sample, the findings nevertheless do provide very encouraging results concerning teachers' perceptions of CPD. It is anticipated that the findings and analysis from the study will be useful in understanding teachers' views about CPD activities and their professional development needs of teacher competencies as well as understanding factors that affect teachers' participation in CPD. Besides, this study helps further explore the CPD Competencies Framework suggested by the ACTEQ (2003) by examining similar patterns that existed in the CPD domains of perceived needs through the use of factor analyses in the study.

Conclusion: My Personal Insights

The current study provides a great opportunity to reflect on my practice as a CPD coordinator. The findings of the study help me understand more about teachers' views about CPD and their needs for CPD. The study better provides precious information about teachers' needs in CPD and it helps me plan CPD for the teachers more strategically according to their needs and preference, at the same time, taking school's needs into account. Reflecting on my role as CPD coordinator, there is always insufficient information and lack of getting teachers involved in the planning of CPD for the teachers. It is always difficult to strike a balance between teachers' needs and school's needs. Nevertheless, Leitch (2010:349)

reminds us that "Teacher educators and those charged with providing professional learning and development, are generally sensitive to the need for teachers to sustain professional selves over time."

This study sheds a light on the teachers' CPD development with more active teacher participation that gives more opportunities for teachers to share and voice out their experience, preference and needs in their own CPD. This study should be continued and acts as a participatory model for teachers' CPD planning and development.

BIBLIOGRAPHY

- Advisory Committee on Teacher Education and Qualifications (ACTEQ) (1998). Report of the Working Group on Review of Teacher Education for Inservice Teachers. An unpublished report submitted to the Secretary for Education and Manpower of the Hong Kong SAR Government.
- Advisory Committee on Teacher Education and Qualifications (ACTEQ) (2003). Towards a Learning Profession: The Teacher Competencies Framework and the Continuing Professional Development of Teachers. Hong Kong: Printing Department.
- Advisory Committee on Teacher Education and Qualifications (ACTEQ) (2006). *Towards a Learning Profession: Interim Report on Teachers' CPD.* Hong Kong: Printing Department.
- Advisory Committee on Teacher Education and Qualifications (ACTEQ) (2009). *Towards a Learning Profession: Third Report on Teachers' CPD.* Hong Kong: Printing Department.
- Aiello, M., and Watson, K. (2010). *Mentoring as a key strategy in the development of a community of reflective practitioners in tertiary education.* In O. Kwo (ed.). Teachers as Learners. Critical Discourse on Challenges and Opportunities. Hong Kong: CERC.
- Allwright, D. (1993). *Integrating research and pedagogy*. In J. Edge and K. Richards (eds). *Teachers Develop Teachers Research*. Oxford: Heinemann.
- Anderson, G. (2000). Fundamentals of Educational Research. New York: Routledge.
- Anderson, J. (2001). *The content and design of in-service teacher education and development.* Paper presented at the National Teacher Education Policy Conference, Midrand, 20-21 October 2001.
- Association for Supervision and Curriculum Development (ASCD) (2002). *Design Your Professional Development Program: Where to Start.* Retrieved on 8th January 2009 from: http://www.ascd.org/trainingopportunities/ossd/planning.html
- Atkinson, P. (1992). *Understanding ethnographic text. Qualitative Research Mehtods Series, Volume 25.*Newbury Park, CA: Sage.
- Aubusson, P., Steele, F., Dinham, S., and Brady, L. (2007). Action learning in teacher learning community formation: informative or transformative? *Teacher Development*, *11*(2), 133-148.
- Ball, D.L., and Cohen, D.K. (1999). Developing practice, developing practitioners: toward a practice-

- based theory of professional education. In L. Darling-Hammond and G. Sykes (eds.). *Teaching as the Learning Profession*. San Francisco, CA: Jossey-Bass.
- Basit, T.N. (2010). Conducting Research in Educational Contexts. London: Continuum.
- Bassey, M. (1999). Case Study Research in Educational Settings. Maidenhead: Open University Press.
- Bell, L. (1991). Approaches to the professional development of teachers. In L. Bell and C. Day (eds.). Managing the Professional Development of Teachers. Milton Keynes: Open University Press.
- Bell, J. (1999). *Doing Your Research Project: A Guide for First-time Researchers in Education and Social Sciences (3rd ed.)*. Buckingham: Open University Press.
- Benney, M., and Hughes, E.C. (1956). Of sociology and the interview. *American Journal of Sociology, 62,* 137-142.
- Bereiter, C., and Scardamalia, M. (1993). Surpassing Ourselves: An Inquiry into the Nature and Implications of Expertise. La Shalle, IL: Open Court.
- Blandford, S. (2000). Managing Professional Development in Schools. London: Routledge.
- Bogdan, R.C., and Biklen, S.K. (1992). *Qualitative Research for Education: An Introduction to Theory and Methods (2nd ed.).* Boston: Allyn & Bacon.
- Bogdan, R.C., and Biklen, S.K. (1998). *Qualitative Research for Education: An Introduction to Theory and Methods*. Boston: Allyn and Bacon.
- Bolam, R. (1993). Recent developments and emerging issues. In GTC Trust (ed.). *The Continuing Professional Development of Teachers*. London: GTC Trust.
- Borko, H., and Putnam, R. T. (1996). Learning to teach. In D. C. Berliner, and R. C. Calfee (eds.). Handbook of Educational Psychology. New York: Macmillan.
- Borko, H., and Putnam, R. (1998). Professional development and reform-based teaching: Introduction to theme issue. Teaching and Teacher Education, 14, 1-3.
- Boudah, D. J., Logan, K. R., and Greenwood, C. R. (2001). The research to practice projects: Lessons learned about changing teacher practice. *Teacher Education and Special Education*, *24*, 290–303.

- Bransford, J., Brown, A., and Cocking, R. (eds.) (1999). *How people learn: Brain, mind, experience, and school.* Washington, DC: National Academy Press.
- Bredeson, P.V. (2003). *Designs for Learning: A New Architecture for Professional Development in Schools*. Thousand Oaks, CA: Corwin Press, Inc.
- Brown, J.S., Collins, A., and Duguid, P. (1989). Situated cognition and culture of learning. *Educational Researcher*, *18*(1), 32-42.
- Bryman, A. (1988). Quality and Quantity in Social Research. London: Allen and Unwin.
- Bryman, A. (2001). Social Research Methods. Oxford: Oxford University Press.
- Burton, J. and Mickan, P. (1993) Teachers' classroom research: rhetoric and reality. In J. Edge and K. Richards (eds.). *Teachers Develop Teachers Research*. Oxford: Heinemann.
- Butler, D.L., Lauscher, H.N., Jarvis-Selinger, S., and Beckingham, B. (2004). Collaboration and self-regulation in teachers' professional development. *Teaching and Teacher Education*, 20, 435-455.
- Carless, D. (2006). Collaborative EFL teaching in primary schools. *ELT Journal*, 60(4), 328-335.
- Carney, S. (2003). Learning from school-based teaching training: possibilities and constraint for experienced teachers. *Scandinavian Journal of Education Research*, *47*(4), 413-429.
- Carre, C. (1993). The first year of teaching. In N. Bennett and C. Carre (eds.). *Learning to Teach*. London: Routledge.
- Catell, R.B. (1966). The scree test for the number of factors. *Multivariate Behavioural Research*, *1*, 245-276.
- Chan, A.H.S., Chen, K., and Chong, E.Y.L. (2010). Work Stress of Teachers from Primary and Secondary Schools in Hong Kong. In Proceedings of the International MultiConference of Engineers and Computer Scientists 2010 (Vol. III), March 17-19 2010, Hong Kong. Retrieved on 10th July 2010 from: http://www.iaeng.org/publication/IMECS2010/IMECS2010_pp1903-1906.pdf
- Chan, F. (2002). Stress turns teachers' thoughts to self-harm. South China Morning Post, 7 October, 2002.
- Chan, K.W. (2004). Teacher Professional Development: In-service Teachers' Motives, Perceptions and

- Concerns about Teaching. *Hong Kong Teachers' Centre Journal, 3*, pp.56-71. Retrieved on 2nd February 2009 from: http://edb.org.hk/HKTC/download/journal/j3/6.pdf
- Chan, R.M.C., and Lee, J.C.K. (2008). Teachers' continuing professional development in Hong Kong.:

 Are we on the right track? In J.C.K. Lee and L.P. Shiu (eds.). *Developing Teachers and Developing Schools in Changing Contexts*. Hong Kong: Hong Kong Institute of Educational Research.
- Chan, R.M.C., Lee, J.C.K., Lee, S.H., Cheung, F.W.M., Tso, K.L., Yeung, S.W., and Tang, P.S.H. (2005). Research on teachers' continuing professional development (in Chinese). Research report presented at the seminar on Teachers' Continuing Professional Development, organized by Hong Kong Primary Education Research Association and Education Convergence (29 April 2006), La Salle College, Hong Kong.
- Chan, T.W. (2003). Professional Development through Collaborative Teaching: A Case Study in a Secondary School. Unpublished dissertation in partial fulfilment of the requirements for the degree of Master of Education, the University of Hong Kong.
- Cheng, Y.C. (2009). Educational reforms in Hong Kong in the last decide: Reform syndrome and new developments. *International Journal of Educational Management*. *23(1)*, 65-86.
- Cheung, C.H. (2004). Investigating and meeting the professional development needs of secondary business teachers. *Journal of In-service Education*, *30(1)*, 167-169.
- Clark, V.L.P. and Creswell, J.W. (2008). The Mixed Methods Reader. London: Sage.
- Clarke, D. (1994). Ten key principles for research for the professional development of mathematics teachers. In D. B. Aichele and F. Coxford (eds.). *Professional Development for Teachers of Mathematics:* 1994 Yearbook. Reston, VA: National Council of Teachers of Mathematics.
- Clement, M., and Vandenberghe, R. (2001). How school leaders can promote teachers' professional development. *An account from the field. School Leadership and Management*, 21, 43-57.
- Clement, M., and Vandenberghe, R. (2003). Leading teachers' professional development. In L. Kydd, L. Anderson, and Newton, W. (eds.). *Leading People and Teams in Education*. London: Paul Chapman Publishing.

- Coetzer, I.A. (2001). A survey and appraisal of outcomes-based education (OBE) in South Africa with reference to progressive education . *America Educare*, *30*, 73-93.
- Cohen, L., and Manion, L. (1994). Research Methods in Education. London: Routeledge and Kegan Paul.
- Cohen, L., Manion, L., and Morrison, K. (2000). *Research Methods in Education (5th ed.).* London/New York: Routledge/Falmer.
- Collier, D., and Elman, C. (2008). Qualitative and multi-method research: organizations, publication, and reflections on integration. In J.M. Box-Steffensmeier, H.E. Brady, and D. Collier (eds.). *The Oxford Handbook of Political Methodology*. Oxford: Oxford University Press.
- Collinson, V. (2000). Staff development by any other name: Changing words or changing practices? *The Educational Forum*, *64*(2), 124-132.
- Cooper, K., Peterson, S., and Broad, K. (2003). Examining professional development: connecting dialogues. *Teacher Educator*, *38*(4), 231-44.
- Cranston, N.C. (2000). Teachers as leaders: a critical agenda for the new millennium. *Asia-Pacific Journal of Teacher Education*, 28(2), 123-131.
- Creswell, J.W. (1994). Research Design: Qualitative and Quantitative Approaches. London: Sage.
- Creswell, J. W. (2009). Research design: Qualitative, Quantitative and Mixed Methods Approach (3rd ed.).

 Thousand Oaks, CA: Sage.
- Crotty, M. (1998). The Foundations of Social Research: Meaning and Perspective in the Research Process. London: Sage.
- Curriculum Development Council (2001). *Learning to Learn: Life-long Learning and Whole-person Development*. Hong Kong: Curriculum Development Council.
- Curtis, A., and Cheng, L. (2001). Teachers' self-evaluation of knowledge, skills and personality characteristics needed to manage change. *Asia-Pacific Journal of Teacher Education*, 29(2), 139-152.
- Dadds, M. (1997). Continuing professional development: nurturing the expert within. *Professional Development in Education*, 23(1), 31-38.

- Darling-Hammond, L. (1997). The Right to Learn: A Blueprint for Creating Schools that Work. San Francisco: Jossey-Bass.
- Darling-Hammond, L. (1998). Teacher learning that supports student learning. *Educational Leadership*, 55 (5), 6-11.
- Darling-Hammond, L. (2004). From "separate but equal" to "No Child Left Behind": The collision of new standards and old inequalities. In Deborah Meier and George Wood (eds.). Many Children Left Behind. NY: Beacon Press.
- Darling-Hammond, L., and McLaughlin, M.W. (1999). Investing in teaching as a learning profession: policy problems and prospects. In L. Darling-Hammond, and G. Skyes (eds.). *Teaching as the Learning Profession*. San Francisco: Jossey-Bass Publishers.
- Darling-Hammond, L., and McLaughlin, M.W. (1995). Policies that support professional development in an era of reform. *Phi Delta Kappan*, *76(8)*, 597–604.
- Darling-Hammond, L., Berry, B., and Thoreson, A. (2001). Does Teacher Certification Matter? Evaluating the Evidence. *Educational Evaluation and Policy Analysis*, *23(1)*, 57-77.
- Day, C. (1991). Roles and relationships in qualitative research on teachers' thinking: A reconsideration. *Teaching and Teacher Education, 7,* 537-547.
- Day, C. (1993). Reflection: a necessary but not sufficient condition for professional development. *British Educational Research Journal*, *19*(1), 83-93.
- Day, C. (1999). Developing Teachers: The Challenges of Life Long Learning. London: Falmer.
- Day, C. (2000). Teachers in the Twenty-first Century: time to renew the vision. *Teachers and Teaching,* 6(1), 101 115.
- Day, C., and Gu, Q. (2010). The New Lives of Teachers. London: Routledge.
- Day, C., and Sachs, J. (eds.) (2004). *International Handbook for Continuing Professional Development.*Buckingham: Open University Press.
- Day, C., Sammons, P., Stobart, G., Kington, A., and Gu, Q. (2007). *Teachers Matter: Connecting Work, Lives and Effectiveness.* Maidenhead: McGraw-Hill/Open University Press.

- Denzin, N.K., and Lincoln, Y.S. (1998a). *Handbook of Qualitative Research, Volume 1 to 3.* Thousand Oaks: Sage.
- Denzin, N.K., and Lincoln, Y.S. (1998b). Introduction: Entering the field of qualitative research. In N.K. Denzin, and Y.S. Lincoln (eds.). *Handbook of Qualitative Research (Volume I, S.1-34)*. Thousand Oaks: Sage.
- DfEE (1998) *The Role of the Special Educational Needs Coordinator*. Retrieved from 8th February 2006 from: http://www.dfee.gov.uk/sen/sencoinf.htm
- Earley, P., and Bubb, S. (2004). Leading and Managing Continuing Professional Development: Developing People, Developing Schools. London: Paul Chapman.
- Education Bureau. (2009). External School Review: Information for Schools. Hong Kong: Retrieved from 6th February 2010
 from: http://www.edb.gov.hk/FileManager/EN/Content_6460/thenextphaseofesr_infoforsch_2009
 __e.pdf
- Education and Manpower Branch and Education Department (1991). School Management Initiative: Setting the Framework for Quality in Hong Kong Schools. Hong Kong: Government Printer.
- Education Commission (1992). School Education in Hong Kong: A Statement of Aims. Hong Kong: Government Printer.
- Education Commission (1997). Education Commission Report No. 7. Hong Kong: Government Printer.
- Education Commission (2000). Learning for Life, Learning through Life: Reform Proposals for the Education System in Hong Kong. Hong Kong: Hong Kong Special Administrative Region of The People's Republic of China, Education Commission.
- Education Department (1981). *Primary Education and Pre-primary Education White Paper*. Hong Kong: Government Printer.
- Education Department (1992). Teacher Survey 1991. Hong Kong: Hong Kong Government Printer.
- Education Department (1997). Teacher Survey 1996. Hong Kong: Hong Kong Government Printer.
- Education Queensland (1997). DRAFT Standards Framework for Teachers. Centre for Teaching Excellence. Retrieved on 8th February 2006 from: http://www.ged.gld.gov.au/pdt/cte

- Elliott, J. (1991). Action Research for Educational Change. Buckingham: Open University Press.
- Englert, C. S., and Tarrant, K. L. (1995). Creating collaborative cultures for educational change. *Remedial and Special Education*, *16(6)*, 325-336, 353.
- Eraut, M. (1994). Developing Professional Knowledge and Competence. London: Farmer Press.
- Eraut, M. (2001). Learning challenges for knowledge-based organizations. In J. Stevens (Ed.), Workplace learning in Europe. London: Chartered Institute of Personnel & Development.
- Estebaranz, A., Mingorance, P., and Marcelo, C. (1999). Teachers' work groups as professional development: What do the teachers learn? *Teachers and Teaching: Theory and Practice, 5(2),* 153-169.
- Fenwick, T. J. (2004). Teacher learning and professional growth plans: implementation of a policy. *Journal of Curriculum & Supervision*, 259-282.
- Ferguson, D.L. (2006). Reconceptualizing Continuing Professional Development: A Framework for Planning. Tempe, Arizona: National Institute for Urban School Improvement.
- Fielding, N., and Schreier, M. (2001). Introduction: On the compatibility between qualitative and quantitative research methods. *Forum: Qualitative Social Research, 2(1).* Retrieved on 19th July 2010 from: http://qualitative-research.net/fqs/fqs-eng.htm.
- Frost, D., and Durrant, J. (2002). *Teacher-led Development Work: Guidance and Support.* London: David Fulton.
- Frost, D., Durrant, J., Head, M., and Holden, G. (2000). *Teacher-Led School Improvement.* London: Routledge/Falmer.
- Fullan, M. (1991). The New Meaning of Educational Change (2nd ed.). New York: Teachers College Press.
- Fullan, M. (1993). Change Forces: Probing the Depths of Educational Reform. London: Falmer Press.
- Fullan, M. (1995). The limits and the potential of professional development. In T.R. Guskey and M. Huberman (eds.). *Professional Development in Education: New Paradigms and Practices.* New York: Teachers College Press.

- Fullan, M. (2001). Leading in a Culture of Change. San Francisco: Jossey-Bass.
- Fullan, M. (2002). *Principals as Leaders in a Culture of Change*. Paper prepared for Educational Leadership, Special Issue, May 2002.
- Fullan, M. (2004). *Leading in a Culture of Change: Personal Action Guide and Work Book.* San Francisco: Jossey-Bass.
- Fullan, M. (2006). Leading in a culture of change. Boston: Jossey-Bass.
- Fullan, M., and Hargreaves, A. (1992). What's Worth Fighting for in your School?: Working Together for Improvement. Buckingham, UK: Open University Press.
- Fullan, M., and Miles, M.B. (1992). Getting reform right: what works and what doesn't. *Phi Delta Kappan,* 73, 745-752.
- Furlong, J. (2001) Reforming teacher education, re-forming teachers: accountability, professionalism and competence. In R. Philip and J. Furlong (eds.). *Education Reform and the State: Twenty Five Years of Politics, Policy and Practice*. London, Routledge / Falmer.
- Gage, N. (1989). The paradigm wars and their after-math: A "historical" sketch of research and teaching since 1989. *Educational Research*, *18*, 4-10.
- Galloway, S. (2000). Issues and challenges in continuing professional development. Continuous professional development: Looking ahead. Proceedings of a symposium by the Centre on Skills, Knowledge and Organizational Performance. Galloway, S. Oxford.
- Garet, M., Porter, A., Desimone, L., Birman, B., and Yoon, K.S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915-945.
- Geertz, C. (1973). Thick Description: Toward an Interpretive Theory of Culture. In The Interpretation of Cultures: Selected Essays. New York: Basic Books.
- Gersten, R. (1995). Introduction to the topical issue. Remedial and Spcial Education, 16(6), 323-324.
- Gersten, R., Vaughn, S., Desheler, D., and Schiller, E. (1997). What we know about using research findings: implications for improving special education practice. *Journal of Learning Disabilities*, *30*, 466-476.

- Glickman, C.D. (2002). *Leadership for Learning*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Goldhaber, D.D., and Brewer, D.J. (2000). Does teacher certification matter? High school certification status and student achievement. *Educational Evaluation and Policy Analysis*, 22, 129-145.
- Goodall, J., Day, C., Lindsay, G., and Muijs, D., and Harris, A. (2005). Evaluating the Impact of CPD.

 Warwick: University of Warwick. Retrieved on 17th July 2010

 from: http://www2.warwick.ac.uk/fac/soc/cedar/projects/completed05/contprofdev/cpdfinalreport0
 5.pdf
- Gordon, S.P. (2004). Professional Development for School Improvement: Empowering Learning Communities. Boston: Allyn and Bacon.
- Gray, S.L. (2005). An Enquiry into Continuing Professional Development for Teachers. London: Esmee Fairbairn Foundation. Retrieved on 17th July 2010 from:

 http://www.esmeefairbairn.org.uk/docs/Education-Rep.pdf
- GTC (2003). Teachers' Professional Learning Framework (TPLF). London: GTC. Retrieved on 17th July 2010 from: http://www.gtce.org.uk/tplf
- Guba, E.G., and Lincoln, Y.S. (1994). Competing paradigms in qualitative research. In N.K. Denzin, and Y.S. Lincoln (eds.). *Handbook of Qualitative Research*. Thousand Oaks, CA: Sage.
- Guskey, T. (1995). Results-oriented Professional Development: In Search of an Optimal Mix of Effectiveness Practices. New York: University of Kentucky.
- Guskey, T. (2000). Evaluating Professional Development. Thousand Oaks, CA: Corwin Press Inc.
- Guskey, T. (2002). How's My Kid Doing? A Parents' Guide to Grades, Marks, and Report Cards. San Francisco: Jossey Bass.
- Guskey, T. (2003). Analyzing lists of the characteristics of effective professional development to promote visionary leadership. *NASSP Bulletin*, *87*(637), 4-20.
- Hallinger, P. (2003) Leading educational change: reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, 33(3), 329–351.
- Hargreaves, A. (1994). Changing Teachers, Changing Times. Toronto: OISE Press.

- Hargreaves, A. (1997). Cultures of teaching and educational change. In M. Fullan (ed.). *The Challenge of School Change*. Arlington Heights, IL: IRI/Skylight.
- Hargreaves, A. (2003). Teachers in a Knowledge Society. New York: Teachers College Press.
- Hargreaves, A., and Fullan, M. (1992). *Understanding Teacher Development*. New York: Teachers College Press.
- Harre R. (1981). The positivist-empiricist approach and its alternative. In P. Reason, and J. Rowan (eds.). Human Inquiry: A Sourcebook of New Paradigm Research. New York, John Wiley.
- Harris, A. (2002). School Improvement: What's in it for Schools? London: Routledge/Falmer.
- Harris, A. (2003). Teacher leadership and school improvement. In A. Harris, C. Day, D. Hopkins, M. Hadfield, M, A. Hargreaves, and C. Chapman (eds.). *Effective Leadership* for School Improvement. London: Routledge/Falmer.
- Harris, A., and Muijs, D. (2005). *Improving Schools through Teacher Leadership.* Maidenhead: Open University Press.
- Harrison, J. (2003). *Eight Keys to Building a School Leadership Team that Works*. Invited Presentation at the National Staff Development Conference of the Southern Regional Education Board, Nashville, Tennessee, July 2003.
- Henry, S. K., Scott, J.A., Wells, J., Skobel, B., Jones, A., Cross, S., Butler, C., and Blackstone, T. (1999). Linking university and teacher communities: A "think tank" model of professional development. *Teacher Education and Special Education*, 22(4), 251-268.
- Herrity, V.A., and Morales, P. (2004). Creating meaningful opportunities for collaboration. In J. H. Chrispeels (ed.). *Learning to Lead Together: The Promise and Challenge of Sharing Leadership.* London: Sage.
- Hesse, M. (1980). Revolutions and Reconstructions in the Philosophy of Science. Bloomington: Indiana University Press.
- Ho, K.K., and Yip, K.H. (2003). Lifelong professional development of teachers: a suggestion for the overhaul of INSET. *International Journal of Lifelong Education*, *22(5)*, 533-541.
- Hoban, G. F., and Erickson, G. (2004). Dimensions of learning for long-term professional development:

- comparing approaches from education, business and medical contexts. *Journal of In-service Education*, 30(2), 301-324.
- Hong Kong Government (1982). *Llewellyn's Report: A Perspective on Education in Hong Kong.* Hong Kong: Hong Kong Government Printer.
- Hopkins, D. (1996). Towards. A theory for school improvement. In J. Gray, D. Reynolds, and C. Fitz-Gibbon (eds.). *Merging Traditions: The Future of Research on School Effectiveness and School Improvement*. London: Cassell.
- Hopkins, D., and Harris, A. (2000). *Creating the Conditions for Teaching and Learning*. London: David Fulton.
- Hopkins, D., Beresford, J., and West, M. (1998). Creating the conditions for classroom and teacher development. *Teachers and Teaching: Theory and Practice*, *4*, 115–141.
- Howe, K. R. (1988). Against the quantitative-qualitative incompatability thesis, or, Dogmas die hard. *Educational Researcher, 17(8),* 10-16.
- Huberman, A.M., and Miles, M.B. (1984). *Innovation Upclose: How School Improvement Works.* New York: Plenum Press.
- Huffman, D., and Kalnin, J. (2003). Collaborative inquiry to make data-based decisions in schools. *Teaching and Teacher Education*, *19*(6), 569-580.
- Huffman, D., Thomas, K., and Lawrenz, F. (2003). Relationship between professional development, teachers' instructional practice, and the achievement of students in science and mathematics. *School Science and Mathematics*, 103(8), 378–387.
- Ingvarson, L. (1987). Models of inservice education and their implications for professional development policy. *Independent Education*, 17(2), 23-32.
- Jin, P., Yeung, A.S., Tang, T.O., and Low, R. (2008). Identifying teachers at risk in Hong Kong: psychosomatic symptoms and sources of stress. *Journal of Psychosomatic Research*, *65*, 357-362.
- Jones, G. A., Swafford, J. O., and Thornton, C. (1992). An integrated model for the professional development of middle school mathematics teachers. In J. A. Dossey, G. Jones, A. E. Dossey, and M. Parmantie (eds.). *Preservice and inservice teacher education: The papers of working*

- group 6 from ICME-7, Quebec city, Quebec, Canada, August 18-22, 1992. Normal, IL: Illinois State University.
- Joyce, B. (1981). A memorandum for the future. In B. Dillion-Peterson (ed.). Staff Development/Organizational Development. Alexandria, VA: Association for Supervision and Curriculum Development.
- Killion, J., and Harrison, C. (2006). *Taking the Lead: New Roles for Teachers and School-based Coaches*. Oxford, OH: National Staff Development Council.
- Komba, W.L., and Nkumbi, E. (2008). Teacher Professional Development in Tanzania: Perceptions and Practices. *Journal of International Cooperation in Education*, *11*(3), 67-83.
- Kong, S.C. (2007). The development and validation of an information literacy model for Hong Kong students: key issues in the professional development of teachers for capacity building. *Technology, Pedagogy and Education, 16(1),* 57-75.
- Krueger, R.A. (1988). Focus Groups: A Practical Guide for Applied Research. Beverly Hills: Sage.
- Kwakman, K. (2003). Factors affecting teachers' participation in professional learning activities. *Teaching and Teacher Education*, 19(2), 149-170.
- Lai, K. C. (2005). Bureaucratic control and the professionalisation of Hong Kong primary teachers. *New Horizons in Education*, *51*, 1-8.
- Lai, M., and Lo, L.N.K. (2007). Teacher professionalism in educational reform: the experiences of Hong Kong and Shanghai. *Journal of Comparative and International Education*, *37*(1), 53-68.
- Lam, S.F., Yim, P.S., and Lam T.W.H. (2002). Transforming school culture: can true collaboration be initiated? *Educational Research*, *44*(2), 181-195.
- Landt, S.M. (2002). Cooperating teachers and professional development. Teaching and Teacher Education [full text from ERIC] ERIC Number: ED466700
- Lau, S.K. (1997). Hong Kong's Colonial Legacy: A Hong Kong Chinese's View of the British Heritage.

 Hong Kong: The Chinese University Press.
- Lave, J. (1988). Cognition in Practice: Mind, Mathematics, and Culture in Everyday Life. Cambridge, UK: Cambridge University Press.

- Lave, J. (1993). The Practice of Learning. In S. Chaiklin and J. Lave (eds.). *Understanding Practice:*Perspectives on Activity and Context. Cambridge: Cambridge University Press.
- Lave, J. (1996). Teaching, as learning, in practice. *Mind Culture and Activity, 3,* 149-164.
- Lave, J., and Wenger, E. (1991). Situated Learning: Legitimate Peripheral Participation. Cambridge: Cambridge University Press.
- Law, S. (1997). Leadership for learning: the changing culture of professional development in schools. *Journal of Educational Administration*, *37(1)*, 66-79.
- Lee, J.C.K. and Shiu, L.P. (eds.). (2008). *Developing Teachers and Developing Schools in Changing Contexts*. Hong Kong: Hong Kong Institute of Educational Research.
- Lee, J.F.K. (2008). A Hong Kong case of lesson study-benefits and concerns. *Teaching and Teacher Education*, *24*, 1115-1124.
- Lee, L.C. (2002). The Effect of Agency Training for Taiwanese Child Care Director Professional Development (China). [Electronic resource]. Ed.D. thesis at Spalding University.
- Legislative Council of Hong Kong Special Administrative Council (2006). The Committee on Teachers' Work: Final Report. Retrieved on 10th July 2010 from: http://www.legco.gov.hk/yr06-07/english/panels/ed/papers/ed0212cb2-1041-6-e.pdf
- Leitch, R. (2010). Masks as self-study: challenging and sustaining teachers' personal and professional personae in early-mid life phases. *Teachers and Teaching*, *16*(3), 329-352.
- Li, B., and Chan, S. (2007). Coaching as a means for enhancing English-language teachers' professional development: a case study. Journal of *In-service Education*, *33*(3), 341-358.
- Lieberman, A. (1995). Practices that support teacher development. Phi Delta Kappan, 76(8), 591-596.
- Lieberman, A. (1996). Creating intentional learning communities. Educational Leadership, 54(3). 51-55.
- Lieberman, A. (1987). Teacher leadership. Teachers College Record, 88(3), 400-405.
- Lieberman, A., and Wood, D. R. (2002). *Inside the National Writing Project: Connecting Network Learning and Classroom Teaching.* New York: Teachers College Press.

- Lincoln, Y.S., and Guba, E. (1985). Naturalistic Enquiry. Beverley Hills: CA: Sage.
- Lincoln, Y. S., and Guba, E. G. (2000). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin and Y. S. Lincoln (Eds.), Handbook of qualitative research (2nd ed., pp. 163-188). Thousand Oaks,
- CA: Sage.Little, J.W. (1987). Teachers as colleagues. In V. Koehler-Richardson (ed.). *Educator's Handbook: A Research Perspective*. New York: Longman.
- Little, J.W. (1990). Teachers as colleagues. In A. Lieberman (ed.). *Schools as Collaborative Cultures:*Creating the Future Now. Bristol: Falmer Press.
- Little, J.W. (2001). Professional development in pursuit of school reform. In A. Lieberman and L. Miller (eds.). *Teachers Caught in the Action: Professional Development that Matters.* New York: Teachers College Press.
- Lo, C. (2003). Stressed teacher in suicide leap at start of new term. South China Morning Post, September, 2003, 4, p. 3.
- Lopez-Real, F., and Kwan, T. (2005). Mentors' perceptions of their own professional development during mentoring. *Journal of Education for Teaching*, *31(1)*, 15-24.
- Lortie, D. (1975). School Teacher. Chicago: University of Chicago Press.
- Loucks-Horsley, S., Hewson, P. W., Love, N., and Stiles, K. E. (1998). *Designing Professional Development for Teachers of Science and Mathematics*. Thousand Oaks, CA: Corwin.
- Loverder, P. (2005). World trends in staff development: Implications on the performance of technical education institutions. Paper presented to National Seminar: The Development of Technology and Technical-Vocational Education and Training in an Era of Globalization, Pan Pacific KLIA, 23–24 August 2005.
- Luk-Fong Y.Y.P. (2009). Teachers' stress and a teachers' development course in Hong Kong: turning 'deficits' into 'opportunities. *Professional Development in Education*, *35(4)*, 613-634.
- Madden, C. A., and Mitchell, V. A. (1993). *Professions, Standards and Competence: A Survey of Continuing Education for the Professions.* Bristol: University of Bristol, Department for Continuing Education.

- Mak, B. (2010). The professional development needs of Hong Kong ESL teachers. *Asia Pacific Education Review, 11 (3),* 397-410.
- Marshall, C., and Rossman, G. B. (1999). Designing Qualitative Research. Thousand Oaks, CA: Sage.
- Maslow, A. (1954). Motivation and Personality. New York: Harper & Row.
- Mayer, D., and Marland, P. (1997). Teachers' knowledge of students: A significant domain of practical knowledge? *Asia-Pacific Journal of Teacher Education*, 25, 17-34.
- Maykut, P., and Morehouse, R. (1994). *Beginning Qualitative Research-A Philosophic and Practical Guide*. London: Falmer.
- Maynard, M. (1994). *Methods, Practice and Epistemology: The Debate about Feminism and Research.*Researching Women's Lives from a Feminist Perspective. London: Taylor and Francis.
- McIntyre, D., and Hagger, H. (1992). Professional development through the Oxford Internship Model. British Journal of Educational Studies, 40(3), 264-283.
- McLaughlin, M. W. (1997) Rebuilding teacher professionalism in the United States. In A. Hargreaves and R. Evans (eds.). *Buying Teachers Back*. Buckingham: Open University Press.
- McLaughlin, M., and Zarrow, J. (2001). Teachers engaged in evidence based reform. In A. Lieberman and L. Miller (eds.). *Teachers Caught in the Action*. New York: Teachers College Press.
- Merriam, S., and Cafarella, R. (1999). Learning in Adulthood. San Francisco, CA: Jossey Bass.
- Merton, R. K., and Kendall, P. L. (1946). The focused interview. *American Journal of Sociology*, *51*, 541-57.
- Ming Pao Daily, 31st January 2005. (In Chinese)
- Mischler, E.G. (1986). *Research Interviewing: Context and Narrative*. Cambridge, MA: Harvard University Press.
- Mitchell, C., and Sackney, L. (2000). *Profound Improvement: Building Capacity for a Learning Community.*Lisse: Swets and Zeitlinger.
- Moore, S., and Shaw, P. (2000). The Professional Learning Needs and Perceptions of Secondary School

- Teachers: Implications for Professional Learning Community. Paper presented at the Annual Meeting of the American Educational Research Association. New Orleans, LA, April 24-28, 2000.
- Morgan, D.L. (1988). Focus Groups as Qualitative Research. Beverly Hills: Sage.
- Morris, P. (2004). Teaching in Hong Kong: professionalization, accountability and the state. *Research Papers in Education*, *19(1)*, 105-121.
- Morris, P., and Adamson, B. (2010). *Curriculum Schooling and Society in Hong Kong. Hong Kong:* Hong Kong University Press.
- Mortimore, P., Mortimore J., and Thomas, H. (1994). *Managing Associate Staff: Innovation in Primary and Secondary Schools*. Paul Chapman.
- Muijs, D., Harris, A., Chapman, C., Stoll, L., and Russ, J. (2004). Improving schools in socioeconomically disadvantaged areas: a review of research evidence. *School Effectiveness and School Improvement*, 15(2), 149-175.
- Mushayikwa, E., and Lubben, F. (2009). Self-directed professional development Hope for teachers working in deprived environments? *Teaching and Teacher Education*, *25*, 375–382.
- Newman, I., and Benz, C. R. (1998). *Qualitative-Quantitative Research Methodology: Exploring the Interactive Continuum.* Carbondale, IL: Southern Illinois University Press.
- Newmann, F.M., King, M.B., and Youngs, P. (2000). Professional development that addresses school capacity: lessons from urban elementary schools. *American Journal of Education, 108(4), 259-299.*
- Ng, H.M. (2003). An analysis of continuous teacher development in Hong Kong. *Journal of Education Policy*, 18(6), 657-672.
- Ng, K.C. and Koa, W. (2003). A comparative study of time and features of teacher activities in Hong Kong, Macau, Beijing and Shanghai. *Educational Research Journal*, 18(1), 113-32 (in Chinese).
- Nisbet, J., and Watt, J. (1984) Case Study. In J. Bell, T. Bush, A. Fox, J. Goodey, and S. Goulding (eds.). Conducting Small-scale Investigations in Educational Management. London: Harper and Row.
- Nisbet, S. (2004). The professional development needs of primary teachers in teaching Mathematics. In B. Bartlett, F. Bryer and D. Roebuck (eds.). *Educating: Weaving Research into Practice: Volume 3.*

- Nathan, Qld: Griffith University, School of Cognition, Language and Special Education.
- O'Brien, J. and MacBeath, J. (1999). Coordinating staff development: the training and development of staff development coordinators. *Journal of In-Service Education*, *25(1)*, 69-83.
- O'Sullivan, F. (1997). Learning Organizations: Reengineering schools for lifelong learning. *School Leadership and Management*, 17(2), 217-230.
- Office for Standards in Education (OFSTED) (1998). The Annual Report. London: OFSTED.
- Onwuegbuzie, A.J. (2002). Positivists, post-positivists, post-structuralists, and post-modernists: Why can't we all get along? Towards a framework for unifying research paradigms. *Education*, 122(3), 518–530.
- Oppenheim, A.N. (1992). *Questionnaire Design, Interviewing and Attitude Measurement*. London: Pinter Publishers Ltd.
- Palincsar, A. (1999). Response: a community of practice. *Teacher Education and Special Education,* 22(4), 272-274.
- Pallant, J. (2005). SPSS survival manual: A step by step guide to data analysis using SPSS for Windows (Version 12) (2nd ed.). New York: McGraw-Hill.
- Pang, M.F. (2006). The use of learning study to enhance teacher professional learning in Hong Kong. *Teaching Education, 17(1), 27-42.*
- Papa, R., and Papa, J. (2011). Leading adult learners: preparing future leaders and professional development of those they need. In R.Papa (ed.). *Technology Leadership for School Improvement*. London: Sage.
- Patton, M.Q. (1990). Qualitative Evaluation and Research Methods. Newbury Park, CA: Sage.
- Peshkin, A. (2000). The nature of interpretation in qualitative research. *Educational Researcher, 29(9),* 5-9.
- Pugach, M.C. (1999). The professional development of teachers from a "communities of practice" perspective. *Teacher Education and Special Education*, 22, 218-233.
- Purkey, S.C., and Smith, M.S. (1982). Too soon to cheer? Synthesis of research on effective schools.

- Educational Leadership, 41, 64-69.
- Putman, R., and Borko, H. (1997). Teacher learning: implications of new views of cognition. In B.J. Biddle, T.L. Good and I.F. Goodson (eds.). *The International Handbook of Teachers and Teaching*. Dordrecht: Kluwer.
- Putman, R., and Borko, H. (1999). What do new views of knowledge and thinking have to say about research on teacher learning. Educational Researcher, 29(1),4-15.
- Putnam, R. T., and Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, *29*(1), 4-15.
- Quaglia, R., Marion, S., and McIntire, W. (1991). The relationship of teacher satisfaction to perceptions of school organization, teacher empowerment, work conditions, and community status. *Education*, 112, 206–217.
- Queeney, D.S. (1995). Assessing Needs in Continuing Education. San Francisco: Jossey-Bass.
- Reeves, J., Turner, E., Morris, B., and Forde, C. (2003). Culture and concepts of school leadership and management: exploring the impact of CPD on aspiring headteachers. School Leadership and Management, 23(1), 5-24.
- Rennie, L. J. (2001). Teacher collaboration in curriculum change: The implementation of technology education in the primary school. *Research in Science Education*, *31*, 49-69.
- Retallick, J. (1999). Teachers' workplace learning: Towards legitimation and accreditation. *Teachers and Teaching*, *5*(1), 33-50.
- Reviere, R., Berkowitz, S., Carter, C.C., and Ferguson, C.G. (1996). Introduction: setting the stage. In R. Reviere, Berkowitz, S., Carter, C.C., and Ferguson, C.G. (eds.). *Needs Assessment: A Creative and Practical Guide for Social Scientists*. Bristol: Taylor & Francis.
- Ritchie, R. (2002). School improvement in the context of a primary school in special measures. Teacher Development, 6(3), 329-345.
- Robinett, S.K. (2001). Perceived Professional Development Needs of Business Education Teachers in West Virginia. Unpublished dissertation submitted for the partial fulfilment of the Doctor of Philosophy at Virginia Polytechnic Institute and State University.

- Rogan, J. and Grayson, D. (2003). Towards a theory of curriculum implementation with particular reference to science education in developing countries. *International Journal of Science Education*, *25* (10), 1171-1204.
- Rogers, A., and Horrocks, N. (2010). Teaching Adults (4th ed.). Berkshire: Open University Press.
- Rogers, C.R. (1983). Freedom to Learn for the 80s. Columbus, OH: Merrill.
- Rosenholtz, S. (1989). Teachers' Workplace: The Social Organization of Schools. New York:Longman.
- Rouda, R.H. and Kusy, M.E. (1995). *Needs Analysis: The First Step.* Retrieved on 12 December 2010 from: http://alumnus.caltech.edu/~rouda/T2 NA.html
- Rudduck, J. (1988). Changing the world of the classroom by understanding it: A review of some aspects of the work of Lawrence Stenhouse. *Journal of Curriculum and Supervision*, *4*(1), 30-42.
- Rudestam, K., and Newton, R. (2001). Surviving Your Dissertation: A Comprehensive Guide to Content and Process. Newbury Park: Sage.
- Sawyer, R. D. (2001). Teacher Decision Making as a fulcrum for teacher development: Exploring structures of growth. *Teacher Development*, *5*(1), 39-58.
- Scardamania, M., and Bereiter, C. (2003). Knowledge building. In J. W. Guthrie (ed.). *Encyclopedia of Education*. New York: Mcamillan.
- Schon, D. (1983). The Reflective Practitioner. London: Temple Smith.
- Schon, D. (1989). Quotations. A Symposium on Schon's Concept of Reflective Practice: Critiques, Commentaries, Illustrations. *Journal of Curriculum and Supervision*, *5*(1), 6-9.
- Scott, D.C., and Weeks, P.A. (1996). Collaborative staff development. *Innovative Higher Education, 21,* 101-111.
- Seidman, I. (1990). Interviewing as Qualitative Research. New York: Teachers College Press.
- Senge, P. (1996). Leading learning organizations: the bold, the powerful, and the invisible. San Francisco, CA: Jossey-Bass.
- Senge, P.M. (1991). The Fifth Discipline: The Art and Practice of the Learning Organization. New York:

Doubleday.

- Shulman, L. S. (1997) Professional Development: Learning from Experience. In B. S. Kogan (ed.). Common Schools, Uncommon Futures. A Working Consensus for School Renewal. New York: Teachers College Press.
- Shulman, L.S. (1986). Those who understand: knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14.
- Shulman, L.S. (1987). Knowledge and teaching: Foundations of the new reform. Harvard Educational Review, 57(1), 1-22.
- Silverman, D. (1993). Interpreting Qualitative Data: Methods for Analyzing Talk, Text and Interaction.

 London: Sage.
- Simons, H. (1995). The politics and ethics of educational research in England: contemporary issues. British *Educational Research Journal*, *21*, 435-450.
- Slavit, D., Nelson, T.H., and Kennedy, A. (2009). (eds.) *Perspectives on Supported Collaborative Teacher Inquiry*. London/New York: Routledge.
- Smith, C., and Gillespie, M. (2007). Research on professional development and teacher change: Implications for adult basic education. *Review of Adult Learning and Literacy, 7.* Retrieved on 10th July 2010 from http://www.ncsall.net/fileadmin/resources/ann_rev/smith-gillespie-07.pdf.
- Smith, C., Hofer, J., Gillespie, M., Solomon, M., and Rowe, K. (2003). How teachers change: A study of professional development in adult education (NCSALL Rep. No. 25). Boston: National Center for the Study of Adult Learning and Literacy.
- Smith, L.I. (2002). *A tutorial on Principal Components Analysis*. Retrieved on 7th February 2010 from http://www.cs.otago.ac.nz/cosc453/student tutorials/principal components.pdf.
- Sparks, D. (2002). Designing Powerful Professional Development for Teachers and Principals. Oxford, OH: National Staff Development Council.
- Sparks, D., and Hirsh, S. (1997). A New Vision for Staff Development. Alexandria, VA: ASCD.
- Sparks, D., and Loucks-Horsley, S.(1989). Models of Staff Development. *Journal of Staff Development,* 10(4), 40-59.

- Spillane, J.P. (1999). External reform initiatives and teachers' efforts to reconstruct practice: the mediating role of teachers' zone of enactment. *Journal of Curriculum Studies*, *31*,143-175.
- Spradley, J.P. (1979). The Ethnographic Interview. New York: Holt, Rinehart & Winston.
- Stake, R. (1995). The Art of Case Study Approach. Thousand Oaks: Sage.
- Stake, R. E. (2000). A modest commitment to the promotion of democracy. In K. Ryan, and DeStefano, L. (eds). Evaluation as a democratic process: Promoting inclusion, dialogue and deliberation. *New Directions in Evaluations*, *85*, 95-107.
- Stein, M.K., Schwan, S.M., and Silver, E.A. (1999). The development of professional developers: learning to assist teachers in new settings in new ways. *Harvard Educational Review, 69*, 237-269.
- Stenhouse, L. (1975). An Introduction to Curriculum Research and Development. London: Heinemann.
- Stevens, J. (1996). Applied Multivariate Statistics for the Social Sciences (3rd ed.). Mahwah, NJ: Lawrence Erlbaum.
- Stoll, L., and Fink, D. (1996). Changing Our Schools. Buckingham: Open University Press.
- Stoll, L., and Louis, K.S. (2007). *Professional Learning Communities Divergence, Depth and Dilemmas*. Berkshire: Open University Press.
- Stufflebeam, D.C., Mc Cormick, C.H., Bronkerhoff, R.A., and Nelson, C.O. (1985). *Conducting Educational Needs Assessment*. Kluwer: Netherland.
- Sum, K.W.R. (2009). *The Professional Lives of Hong Kong Primary School Physical Education Teachers*. Unpublished thesis for the degree of Doctor of Education, University of Leicester.
- Sweeting, A. (2008). Teacher Professionalization in Hong Kong: Historical Perspectives. In D. Johnson and R. Maclean (eds.). *Teaching: Professionalization, Development and Leadership.* New York: Springer.
- Tabachnick, B.G., and Fidell, L.S (2001). *Using Multivariate Statistics* (5th ed.). Hong Kong: Pearson.
- Talbert, J., & McLaughlin, M. (1994). Teacher Professionalism in Local School Contexts. *American Journal of Education*, 102(2), 123-53.

- Tang, S.Y.F., and Choi, P.L. (2009) Teachers' professional lives and continuing professional development in changing times. *Educational Review, 61(1),* 1-18.
- Tang, Y.F.S., Leung, P.P.W., Chow, A.W.K., and Wong, P.M. (2010). A case study of teacher learning in an assessment for learning project in Hong Kong. *Professional Development in Education, 36(4),* 621-636.
- Tashakkori, A., and Teddlie, C. (eds.) (2003). *Handbook of Mixed Methods in Social and* Behavioral Research. Thousand Oaks, CA: Sage.
- Taylor, W. (1975). The universities and in-service education. *British Journal of In-service Education and Training, 1,* 1.
- Teddlie, C., and Tashakkori, A. (2009). Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioural Sciences. London: Sage.
- Tickle, L. (2001) The Organic Intellectual Educator. Cambridge Journal of Education, (31)2, 159-176.
- Timperley, H. (2008). *Teacher Professional Learning and Development. Belley: Imprimerie Nouvelle Gonnet.* Retrieved on 17th July 2010 from: http://www.mp.gov.rs/resursi/dokumenti/dok195-eng-lbe teacher professional learning and development.pdf
- Toole, J.C., and Louis, K.S. (2002). The role of professional learning communities in international education. In K. Leithwood and P. Hallinger (eds.). Second International Handbook of Educational Leadership and Administration. Dordrecht: Kluwer.
- Vandenberghe, V. (2002). Evaluating the magnitude and the stakes of peer effects analysing science and math achievement across OECD. *Applied Economics*, *34*, 1283-1290.
- Vaughn, S., and Schumm, J.S. (1995). Responsible inclusion for students with learning disabilities. *Journal of Learning Disabilities*, 28, 264-270, 290.
- Villegas-Reimers, E. (2003). *Teacher Professional Development: An International Review of Literature.*Paris: International Institute for Educational Planning, UNESCO.
- Vonk, H. (1991). Some trends in the development of curricula for the professional preparation of primary and secondary school teachers in Europe: A comparative study. *British Journal of Educational Studies*, *XXXIX*(2), *May*, 117-137.

- Vygotsky, L. S. (1986). Thought and Language. Cambridge, MA: MIT Press.
- Walker, A., and Cheong, Y. C. (1996). Professional development in Hong Kong primary schools: beliefs, practices and change. *Journal of Education for Teaching*, 22, 197-212.
- Walker, R. (1985). Doing Research: A Handbook for Teachers. London: Routledge.
- Waters, M. (1998) Personal Development for Teachers, Part 2. *Professional Development Today, 1,* 29–36.
- Watts, G. D., and Castle, S. (1993). The time dilemma in school restructuring. *Phi Delta Kappan, 75(4),* 306-310.
- Wenger, E. (1998). Communities of Practice: Learning, Meaning, and Identity. Cambridge: Cambridge University Press.
- Wenger, E. and Snyder, W.M. (2000). Communities of practice: the organizational frontier. *Harvard Business Review, 78(1),* 139-147.
- Wertsch, J.V. (1991). *Voices of the Mind: a Sociocultural Approach to Mediated Action.* Cambridge, MA: Harvard University Press.
- Wesley, P., and Buysse, V. (2001). Communities of practice: expanding professional roles to promote reflection and shared inquiry. *Topics in Early Childhood Special Education*, *21* (2), 114-124.
- Wheeler, A.E. (2001). Bridging the North-South Divide in teacher education. *Teacher Education. La formation des maîtres, 41*, 12-15.
- Wiersma, W. (1995). Research Methods in Education: An Introduction (6th ed.). Boston: Allyn and Bacon.
- Wilson, S.M., and Berne, J. (1999). Teacher learning and the acquisition of professional knowledge: an examination of research on contemporary professional development. In A. Iran-Nejad and P.D. Pearson (eds.). *Review of Research in Education*, *24*, 173-209.
- Wong, P.M. (2005). Education Reform and the establishment of schools with characteristics. In W.O. Lee,C.L. Mak, and Wong, P. M. (eds.). Hong Kong's School-based Reform in Practitioners'Perspective. Hong Kong: Educational Publishing.
- Wong, C.C. (2005). Hong Kong Teachers' Perceptions of Continuing Professional Development Policies

and Activities. Unpublished dissertation in partial fulfilment of the requirements for the degree of Master of Education, the University of Hong Kong.

Yip, E.T.M. (1998). Teachers' perceptions of professional development. Thesis (M.A.) National Institute of Education, Nanyang Technological University. Retrived on 27th June 2007 from: http://repository.nie.edu.sg/jspui/bitstream/10497/825/3/YipEugeneTuckMeng.htm.

APPENDICES

Appendix I: Acknowledgement on Joint Publications

The Publications were published during my thesis candidature. I have worked with other academics in the field regarding curriculum innovation and teacher development. The collaborative authorship experience is invaluable and provokes me to gain more thoughts and insights about teacher development. Moreover, in order to more thoroughly understand how teacher development works internationally and get more exposure to knowledge exchange and sharing, I participated and presented at some international conferences such as American Educational Research Association (AERA) Annual Meeting and Asia-Pacific Educational Research Association (APERA) International Conference.

Appendix II: An Overview of the Generic Teacher Competencies Framework in the CPD Document 2003 (ACTEQ, 2003)

An Overview of the Generic Teacher Competencies Framework

TEACHING AND LEARNING DOMAIN	STUDEN	STUDENT DEVELOPMENT DOMAIN	SCHOOL DEVELOPMENT BOMAIN	PMENT DOMAIN	PROFESSIONAL RELATIONSHIPS AND SERVICES DOMAIN
* Subject Matter Knowledge - command of subject matter knowledge and search for new subject matter knowledge - sharing and exchange of subject teaching practice - sharing and exchange of subject teaching practice - command and application of pedagogical content knowledge - curriculum design, implementation and improvement - updating and sharing of pedagogical content knowledge and sharing of pedagogical content knowledge and sharing of pedagogical strategies and skills - knowledge and application of teaching strategies and skills - language proficiency - motivation of student learning through different teaching methods and multi-media - research and dissemination on teaching strategies and skills * Assessment and Evaluation - student assessment results - use of student assessment results - evaluation and review of teaching and learning programmes	ன். , டி. , டி. , மி. , ,	Students' Diverse Needs in School understanding students' diverse needs diverse needs collegial collaboration in identifying and supporting students' diverse needs Rapport with Students awareness of the importance of establishing rapport with students building trust and rapport with students Pastoral Care for Students providing pastonal care for students collegial collaboration in providing pastonal care Students' Different Learning Experiences participation and implementation phanning and organisation phanning and organisation whole person development of students whole person development of students	School's Vision and Mission, Culture and adaptation to the school vision and meculture and ethos aculture and ethos aculture and ethos culturation of actring and inviting school contribution to reviewing the school vision and and school image Policies, Procedures and Practices understanding school goals and policies, procadures and practices for continuous development Home-School Collaboration understanding students family backgro communication with parents involvement in parents for further development whole School Collaboration understanding students family backgro communication with parents involvement in parents for further development selection with parents awareness and knowledge of societal Value Changes awareness and knowledge of societal character relation to their impact on school related to social values	Schools Vision and Mission, Culture and Ethos - adaptation to the school vision and mission, culture and ethos - actualisation of acting and inviting school climate - contribution to reviewing the school vision and mission, as well as promoting the school culture and school image - Policies, Procedures and Practices - understanding school goals and policies, procedures and practices for continuous school development and practices for continuous school development - understanding students/ family backgrounds - understanding students family back	Collaborative Relationships within the School - working relationships with individuals - working relationships with formal structures - working relationships with formal structures - working relationships within formal structures - contributions to teachers' professional development - sharing of knowledge and good practices with others - contributions to teachers' professional development - awareness and knowledge of policies related to education - responsiveness to policies related to education - contributions to policies related to education - contributions to policies related to education - trelated to education - responsiveness and voluntary Work - interaction with the broader community - participation in education-related community - participation in education-related community - work
		SIX CORE VALUES THAT UNDERPIN THE WHOLE FRAMEWORK	ERPIN THE WHOLE FRAM	EWORK	
belief that all students can learn love a	love and care for students	respect for commit diversity to the p	commitment and dedication to the profession	collaboration, staring and team spirit	passion for continuous learning and excellence
	BASIC	BASIC PREMISE: THE PERSONAL GROWTH AND DEVELOPMENT OF TEACHERS	WITH AND DEVELOPMEN	I OF TEACHERS	

Appendix IIIa: CPD Questionnaire Survey (English version)

Dear Colleague,

Continuing Professional Development (CPD) Questionnaire for Teachers

I am a Year 4 student studTeacher Y in the Doctor of Education (Lifelong Education) Programme at the University of Nottingham, England. I am doing a thesis on the topic of "Teachers' Perceptions and Experiences of Continuing Professional Development (CPD): Opportunities and Needs in Hong Kong Primary Schools".

There are 8 parts in this instrument. Part A includes questions about your preferences and participation in continuing professional development activities. Part B includes questions about the frequency and effectiveness of continuing professional development activities as provided by your school. Part C includes questions about your confidence and participation in different domains of continuing professional development. Part D includes questions about your views and needs of your school provision of continuing professional development in different domains. Part E includes a question about inhibiting factors that inhibit you in continuing professional development. Part F lets you state further comments on continuing professional development. Part G includes questions about your individual background. Part H asks you whether you want to receive a executive summary of the study results or not.

This survey is used as an instrument for my thesis. The purpose of this survey is to identify the perceptions and needs of the teachers for their continuing professional development (CPD). If you wish to receive a copy of the results, please check the YES box and leave your email address.

The data collected will be confidential and it will be discarded after the research.

I will be very grateful if the completed questionnaires were returned to me by 10 April 2006 through the coordinator. Please use the enclosed returned envelope.

I am looking forward to hearing from you. Thank you!

Yours	since	erely,	
	Wan	Wai	Yan

Part A: Preferences and participation in CPD activities

I think i	s				CPD Activities	I have participated	l infor	last year (04-	05).
most	preferred	slightly	not			>150 hrs	100-150 hrs	51-100 hrs	<50 hrs
preferred		preferred	preferred						
4	3	2	1	A1	Local/Overseas Conferences, Symposia, Workshops,	4	3	2	1
					Courses				
4	3	2	1	A2	Offshore study visits	4	3	2	1
4	3	2	1	A3	Higher academic study	4	3	2	1
4	3	2	1	A4	Peer class observation	4	3	2	1
4	3	2	1	A5	Collaborative teaching	4	3	2	1
4	3	2	1	A6	Formal learning/study circles among colleagues	4	3	2	1
4	3	2	1	A7	Visits to other schools to share teaching experiences	4	3	2	1
4	3	2	1	A8	Mentoring	4	3	2	1
4	3	2	1	A9	School-based projects	4	3	2	1
4	3	2	1	A10	Action study	4	3	2	1
4	3	2	1	A11	Publications	4	3	2	1
4	3	2	1	A12	Service to education and the community	4	3	2	1

Part B: Frequency and effectiveness of CPD activities

My school .	provides _	•			CPD Activities	I think is	are for my CPI	D.	
always	often	seldom	never			most	effective	quite	slightly or
						effective		effective	not
									effective
4	3	2	1	B1	Local/Overseas Conferences, Symposia, Workshops, Courses	4	3	2	1
4	3	2	1	B2	Offshore study visits	4	3	2	1
4	3	2	1	В3	Higher academic study	4	3	2	1
4	3	2	1	B4	Peer class observation	4	3	2	1
4	3	2	1	В5	Collaborative teaching	4	3	2	1
4	3	2	1	В6	Formal learning/study circles among colleagues	4	3	2	1
4	3	2	1	В7	Visits to other schools to share teaching experiences	4	3	2	1
4	3	2	1	В8	Mentoring	4	3	2	1
4	3	2	1	В9	School-based projects	4	3	2	1
4	3	2	1	B10	Action study	4	3	2	1
4	3	2	1	B11	Publications	4	3	2	1
4	3	2	1	B12	Service to education and the community	4	3	2	1

Part C: Confidence and participation in CPD domains

Currently, I	am in the	•		1. Teaching and Learning Domain	I participo	ite in the	_ - •	
very confident	confident	slightly confident	not confident at		always	often	seldom	never
comident		comident	all					
4	3	2	1	C1.1 command of subject matter knowledge	4	3	2	1
4	3	2	1	C1.2 updating of subject matter knowledge and search for new subject knowledge	4	3	2	1
4	3	2	1	C1.3 sharing and exchange of subject teaching practice	4	3	2	1
4	3	2	1	C2.1 command and application of pedagogical content knowledge	4	3	2	1
4	3	2	1	C2.2 curriculum design, implementation and improvement	4	3	2	1
4	3	2	1	C2.3 updating and sharing of pedagogical content knowledge	4	3	2	1
4	3	2	1	C3.1 knowledge and application of teaching strategies and skills	4	3	2	1
4	3	2	1	C3.2 language proficiency	4	3	2	1
4	3	2	1	C3.3 motivation of student learning through different teaching methods and multi-media	4	3	2	1
4	3	2	1	C3.4 research and dissemination on teaching strategies and skills	4	3	2	1
4	3	2	1	C4.1 student assessment methods and procedures	4	3	2	1
4	3	2	1	C4.2 use of student assessment results	4	3	2	1
4	3	2	1	C4.3 evaluation and review of teaching and learning programmes	4	3	2	1

Part C: Confidence and participation in CPD domains (Cont'd)

Currently, I	am in the	•		2. Student Development Domain	I participate	in the		
very	confident	slightly	not		always	often	seldom	never
confident		confident	confident at					
			all					
4	3	2	1	C5.1 understanding students' diverse needs	4	3	2	1
4	3	2	1	C5.2 identifTeacher Y and supporting students' diverse needs	4	3	2	1
4	3	2	1	C5.3 collegial collaboration in identifTeacher Y and supporting	4	3	2	1
				students' diverse needs				
4	3	2	1	C6.1 awareness of the importance of establishing rapport with	4	3	2	1
				students				
4	3	2	1	C6.2 building trust and rapport with students	4	3	2	1
4	3	2	1	C7.1 providing pastoral care for students	4	3	2	1
4	3	2	1	C7.2 collegial collaboration in providing pastoral care	4	3	2	1
4	3	2	1	C8.1 participation and implementation	4	3	2	1
4	3	2	1	C8.2 planning and organization	4	3	2	1
4	3	2	1	C8.3 whole person development of students	4	3	2	1

Part C: Confidence and participation in CPD domains (Cont'd)

Currently, I	am in the	·		3. School Development Domain	I participat	e in the	_•	
very	confident	slightly	not		always	often	seldom	never
confident		confident	confident at					
			all					
4	3	2	1	C9.1 adaptation to the school vision and mission, culture and	4	3	2	1
				ethos				
4	3	2	1	C9.2 actualization of school beliefs, vision and mission	4	3	2	1
4	3	2	1	C9.3 cultivation of a caring and inviting school climate	4	3	2	1
4	3	2	1	C9.4 contribution to reviewing the school vision and mission,	4	3	2	1
				as well as promoting the school culture and school image				
4	3	2	1	C10.1 understanding school goals and policies	4	3	2	1
4	3	2	1	C10.2 implementation of school policies, procedures and	4	3	2	1
				practices				
4	3	2	1	C10.3 formulation of school policies, review of procedures and	4	3	2	1
				practices for continuous school development				
4	3	2	1	C11.1 understanding students' family backgrounds	4	3	2	1
4	3	2	1	C11.2 communication with parents	4	3	2	1
4	3	2	1	C11.3 involvement in parent-related activities	4	3	2	1
4	3	2	1	C11.4 building trust with parents for further school	4	3	2	1
				development				
4	3	2	1	C12.1 awareness and knowledge of societal changes in relation	4	3	2	1
				to their impact on school				
4	3	2	1	C12.2 responsiveness to societal changes and issues related to	4	3	2	1
				social values				

Part C: Confidence and participation in CPD domains (Cont'd)

Currently, I	am in the	•		4. Professional Relationships and Services Domain	I participate	in the		
very	confident	slightly	not		always	often	seldom	never
confident		confident	confident at					
			all					
4	3	2	1	C13.1 working relationships with individuals	4	3	2	1
4	3	2	1	C13.2 working relationships with groups	4	3	2	1
4	3	2	1	C13.3 working relationships within formal structures	4	3	2	1
4	3	2	1	C14.1 sharing of knowledge and good practices with others	4	3	2	1
4	3	2	1	C14.2 contributions to teachers' professional development	4	3	2	1
4	3	2	1	C15.1 awareness and knowledge of policies related to	4	3	2	1
				education				
4	3	2	1	C15.2 responsiveness to policies related to education	4	3	2	1
4	3	2	1	C15.3 contributions to policies related to education	4	3	2	1
4	3	2	1	C16.1 interaction with the broader community	4	3	2	1
4	3	2	1	C16.2 participation in education-related community services	4	3	2	1
				and voluntary work				

Part D: Needs of school CPD provision

I feel that my	y school CPD	provision of	can	1. Teaching and Learning Domain	My needs on	. is in my jo	ob.	
satisfy my ne	eds.							
strongly	agree	disagree	strongly		very urgent	urgent	quite urgent	little or not
agree			disagree					urgent at all
4	3	2	1	D1.1 command of subject matter knowledge	4	3	2	1
4	3	2	1	D1.2 updating of subject matter knowledge and search for new subject knowledge	4	3	2	1
4	3	2	1	D1.3 sharing and exchange of subject teaching practice	4	3	2	1
4	3	2	1	D2.1 command and application of pedagogical content knowledge	4	3	2	1
4	3	2	1	D2.2 curriculum design, implementation and improvement	4	3	2	1
4	3	2	1	D2.3 updating and sharing of pedagogical content knowledge	4	3	2	1
4	3	2	1	D3.1 knowledge and application of teaching strategies and skills	4	3	2	1
4	3	2	1	D3.2 language proficiency	4	3	2	1
4	3	2	1	D3.3 motivation of student learning through different teaching methods and multi-media	4	3	2	1
4	3	2	1	D3.4 research and dissemination on teaching strategies and skills	4	3	2	1
4	3	2	1	D4.1 student assessment methods and procedures	4	3	2	1
4	3	2	1	D4.2 use of student assessment results	4	3	2	1
4	3	2	1	D4.3 evaluation and review of teaching and learning programmes	4	3	2	1

Part D: Needs of school CPD provision (Cont'd)

I feel that my	y school CPD	provision of	can	2. Student Development Domain	My needs on	is in my jod	b.	
satisfy my ne	eeds.							
strongly	agree	disagree	strongly		very urgent	urgent	quite urgent	little or not
agree			disagree					urgent at all
4	3	2	1	D5.1 understanding students' diverse needs	4	3	2	1
4	3	2	1	D5.2 identifTeacher Y and supporting students' diverse needs	4	3	2	1
4	3	2	1	D5.3 collegial collaboration in identifTeacher Y and supporting	4	3	2	1
				students' diverse needs				
4	3	2	1	D6.1 awareness of the importance of establishing rapport with	4	3	2	1
				students				
4	3	2	1	D6.2 building trust and rapport with students	4	3	2	1
4	3	2	1	D7.1 providing pastoral care for students	4	3	2	1
4	3	2	1	D7.2 collegial collaboration in providing pastoral care	4	3	2	1
4	3	2	1	D8.1 participation and implementation	4	3	2	1
4	3	2	1	D8.2 planning and organization	4	3	2	1
4	3	2	1	D8.3 whole person development of students	4	3	2	1

Part D: Needs of school CPD provision (Cont'd)

I feel that m	y school CPD _I	provision of	can	3. School Development Domain	My needs on	. is in my je	ob.	
satisfy my ne	eds.							
strongly	agree	disagree	strongly		very urgent	urgent	quite urgent	little or not
agree			disagree					urgent at all
4	3	2	1	D9.1 adaptation to the school vision and mission, culture and	4	3	2	1
				ethos				
4	3	2	1	D9.2 actualization of school beliefs, vision and mission	4	3	2	1
4	3	2	1	D9.3 cultivation of a caring and inviting school climate	4	3	2	1
4	3	2	1	D9.4 contribution to reviewing the school vision and mission,	4	3	2	1
				as well as promoting the school culture and school image				
4	3	2	1	D10.1 understanding school goals and policies	4	3	2	1
4	3	2	1	D10.2 implementation of school policies, procedures and	4	3	2	1
				practices				
4	3	2	1	D10.3 formulation of school policies, review of procedures and	4	3	2	1
				practices for continuous school development				
4	3	2	1	D11.1 understanding students' family backgrounds	4	3	2	1
4	3	2	1	D11.2 communication with parents	4	3	2	1
4	3	2	1	D11.3 involvement in parent-related activities	4	3	2	1
4	3	2	1	D11.4 building trust with parents for further school	4	3	2	1
				development				
4	3	2	1	D12.1 awareness and knowledge of societal changes in relation	4	3	2	1
				to their impact on school				
4	3	2	1	D12.2 responsiveness to societal changes and issues related to	4	3	2	1
				social values				

Part D: Needs of school CPD provision (Cont'd)

I feel that my	y school CPD _l	provision of	can	4. Professional Relationships and Services Domain	My needs on	is in my jo	b.	
satisfy my ne	eeds.							
strongly	agree	disagree	strongly		very urgent	urgent	quite urgent	little or not
agree			disagree					urgent at all
4	3	2	1	D13.1 working relationships with individuals	4	3	2	1
4	3	2	1	D13.2 working relationships with groups	4	3	2	1
4	3	2	1	D13.3 working relationships within formal structures	4	3	2	1
4	3	2	1	D14.1 sharing of knowledge and good practices with others	4	3	2	1
4	3	2	1	D14.2 contributions to teachers' professional development	4	3	2	1
4	3	2	1	D15.1 awareness and knowledge of policies related to	4	3	2	1
				education				
4	3	2	1	D15.2 responsiveness to policies related to education	4	3	2	1
4	3	2	1	D15.3 contributions to policies related to education	4	3	2	1
4	3	2	1	D16.1 interaction with the broader community	4	3	2	1
4	3	2	1	D16.2 participation in education-related community services	4	3	2	1
				and voluntary work				

Part E: What are the barriers to y (Please circle as appropriate.)	your conun YES	uing protes NO	sionai development?	
If YES, please list below.	ILS	110		
Part F: What are the factors cont	_	•	nuing professional de	velopment?
(Please circle as appropriate.) If YES, please list below.	YES NO	,		
Part G: Other comments				
Part H: Background Information				
1. Gender				
☐ Male ☐ Female				
2. Age				
$\square \ 20 - 25 \ \square \ 26 - 30 \qquad \square \ 31$	- 35 □	36 - 40		
$\square 41 - 45 \square 46 - 50 \square Ab$	ove 50			
3. Highest Educational Level				
☐ Certificate of Education (or equi	valent) \square	Bachelor D	egree	
☐ Master Degree ☐ Doctoral Deg	gree \square	l Others (pl	ease specify):	
4. Teaching Experience				
\square <1 year \square 1 – 5 years	\Box 6 – 1	10 years	□ 11 – 15 years	
\square 16 – 20 years \square Beyond 20 y	ears			
5. Your teaching post				
□ CM □ APSM □ AM	Л [] PSM		

Part I:			
Do you wish to receive an executive summary of the study results?	□ Yes	□ No	
Your email address:			

-End-

Thank you for completing this questionnaire and for your operation.

Appendix IIIb: CPD Questionnaire Survey (Chinese version)

各位同工:

教師持續專業發展問卷調查

本人是一名就讀於英國諾定咸大學(University of Nottingham, England)教育博士課程四年級學生,現正進行一項問卷調查,題目爲「教師對持續專業發展的觀感」(Teachers' Perceptions and Experiences of Continuing Professional Development (CPD): Opportunities and Needs in Hong Kong Primary Schools)。這份問卷的目的是了解香港教師持續專業發展的觀感,以作爲舉辦教師持續專業發展活動之參考。

本問卷調查共分爲9個部分。第一部分包含了一些關於您參與持續專業發展活動之情況的問題;第二部分包含了一些關於您對學校提供的持續專業發展之看法的問題。第三部分包含了一些關於您對持續專業發展不同範疇的信心和參與之看法的問題。第四至七部分包含了一些關於您對學校所提供不同範疇的持續專業發展之看法和需要的問題。第八部分將請您提供您的背景資料。第九部份是關於您是否需要本研究結果摘要,若您需要這份摘要,請在「是」的地方打✓,並留下您的電郵地址。

請您回答**所有問題**。所有研究取得之資料將會**絕對保密**,並於完成研究後銷毀。謝 謝!

請把完成的問卷放入已提供的信封及把信封口封好,並於 **2006 年 4 月 30 日**或之前交回給負責老師。多謝合作!敬祝

教安

溫慧欣敬啓

2006年4月2日

第一部分:關於您參與持續專業發展活動的情況

請圈出最適合您的答案。

請表示你對右邊各項持續專業發展活動的 喜愛程度。			食展活動的	持續專業發展活動		我去年(2004-2005)參與了的持續專業發展活動(請參看左邊各項持續專業發展活動)。				
十分	頗喜歡	少許	不喜歡			超過 150	51-150	少於 50 小	沒有參與	
喜歡		喜歡	, –,,,,			小時	小時	時		
4	3	2	1	A1	參加本地/海外舉行的會議、座談會、工作 坊及課程	4	3	2	1	
4	3	2	1	A2	境外考察學習	4	3	2	1	
4	3	2	1	A3	修讀高級學歷課程	4	3	2	1	
4	3	2	1	A4	同儕間互相交流、觀課	4	3	2	1	
4	3	2	1	A5	協作教學	4	3	2	1	
4	3	2	1	A6	在學習小組內和同工分享有關教育專業的 閱讀心得和意念	4	3	2	1	
4	3	2	1	A7	探訪其他學校/院校,進行專業交流及分享 教學經驗	4	3	2	1	
4	3	2	1	A8	參與教學啓導計劃	4	3	2	1	
4	3	2	1	A9	參與校本計劃	4	3	2	1	
4	3	2	1	A10	實踐研究	4	3	2	1	
4	3	2	1	A11	發表著作	4	3	2	1	
4	3	2	1	A12	爲教育團體及社會服務	4	3	2	1	

第二部分:持續專業發展活動的參與程度及其效能

請圈出最適合您的答案。

我任教的學校提供(請參看右邊			持續專業發展活動	我認爲(請參看左邊的持續專業發展					
的持續專業發展活動)。					活動)對我個人持續專業發展是。				
時常	經常	很少	從不			最有效	有效	幾有效	輕微有效
									或無效
4	3	2	1	B1	參加本地/海外舉行的會議、座談會、工作坊及課程	4	3	2	1
4	3	2	1	B2	境外考察學習	4	3	2	1
4	3	2	1	В3	修讀高級學歷課程	4	3	2	1
4	3	2	1	B4	同儕間互相交流、觀課	4	3	2	1
4	3	2	1	B5	協作教學	4	3	2	1
4	3	2	1	B6	在學習小組內和同工分享有關教育專業的閱讀心得	4	3	2	1
					和意念				
4	3	2	1	В7	探訪其他學校/院校,進行專業交流及分享教學經驗	4	3	2	1
4	3	2	1	B8	參與教學啓導計劃	4	3	2	1
4	3	2	1	B9	參與校本計劃	4	3	2	1
4	3	2	1	B10	實踐研究	4	3	2	1
4	3	2	1	B11	發表著作	4	3	2	1
4	3	2	1	B12	爲教育團體及社會服務	4	3	2	1

第三部分:對持續專業發展範疇的信心及參與程度

請圈出最適合您的答案。

現在我在(請參看右邊的範疇)。) °	1. 教與學範疇		我參與(請參看左邊的範疇。)			
非常	有信心	輕微	完全	1. 狄央字型嗪		時常	經常	很少	從不
有信心		有信心	沒有信心						
4	3	2	1	C1.1	掌握學科內容知識	4	3	2	1
4	3	2	1	C1.2	更新學科內容知識及探求新的學科知識	4	3	2	1
4	3	2	1	C1.3	分享有關科目的教學方法	4	3	2	1
4	3	2	1	C2.1	掌握及應用教學內容知識	4	3	2	1
4	3	2	1	C2.2	設計、落實及改進課程	4	3	2	1
4	3	2	1	C2.3	更新及分享教學內容知識	4	3	2	1
4	3	2	1	C3.1	教學策略及技巧的知識與應用	4	3	2	1
4	3	2	1	C3.2	善用教學語文能力	4	3	2	1
4	3	2	1	C3.3	善用不同教學法及多媒體教學激勵學習動機	4	3	2	1
4	3	2	1	C3.4	研究及發揚教學策略及技巧	4	3	2	1
4	3	2	1	C4.1	掌握評核學生方法及程序	4	3	2	1
4	3	2	1	C4.2	使用學生評核結果	4	3	2	1
4	3	2	1	C4.3	評估及檢討教學及學習計畫	4	3	2	1

第三部分:對持續專業發展範疇的信心及參與程度(續)

現在我在(請參看右邊的範疇)。			2. 學生發展範疇		我參與(請參看左邊的範疇。)				
非常	有信心	輕微	完全	2. 学工致放祀帮		時常	經常	很少	從不
有信心		有信心	沒有信心						
4	3	2	1	C5.1	理解學生的不同需要	4	3	2	1
4	3	2	1	C5.2	識別學生的不同需要及提供支援	4	3	2	1
4	3	2	1	C5.3 與同儕協作,識別學生的不同需要及提供支		4	3	2	1
					援				
4	3	2	1	C6.1	明白與學生建立融洽關係的重要性	4	3	2	1
4	3	2	1	C6.2	培養互信和融洽的師生關係	4	3	2	1
4	3	2	1	C7.1	馬學生提供關顧服務	4	3	2	1
4	3	2	1	C7.2	與同儕協作,提供關顧服務	4	3	2	1
4	3	2	1	C8.1	C8.1 參與及執行多元的學習計畫		3	2	1
4	3	2	1	C8.2	策畫及組織多元的學習計畫	4	3	2	1
4	3	2	1	C8.3	關注學生的全人發展	4	3	2	1

第三部分:對持續專業發展範疇的信心及參與程度(續)

現在我在(請參看右邊的範疇)。			3. 學校發展範疇	我參與_	(請參看	左邊的範疇。)		
非常	有信心	輕微	完全	3. 李仪致放起带		時常	經常	很少	從不
有信心		有信心	沒有信心						
4	3	2	1	C9.1	C9.1 配合學校的願景、使命、文化及校風		3	2	1
4	3	2	1	C9.2	實踐學校的信念、願景及使命	4	3	2	1
4	3	2	1	C9.3	營造關懷和愉悅的校園氣氛	4	3	2	1
4	3	2	1	C9.4	檢視學校願景和使命、推廣學校文化和形	4	3	2	1
					象				
4	3	2	1	C10.1	C10.1 了解學校目標及政策		3	2	1
4	3	2	1	C10.2	執行學校政策、程序及措施	4	3	2	1
4	3	2	1	C10.3	制訂學校政策、檢討有關程序及措施,推	4	3	2	1
					動學校持續發展				
4	3	2	1	C11.1	了解學生家庭背景	4	3	2	1
4	3	2	1	C11.2	與家長保持溝通	4	3	2	1
4	3	2	1	C11.3	投入與家長有關的活動	4	3	2	1
4	3	2	1	C11.4	C11.4 與家長建立互信,促進學校發展		3	2	1
4	3	2	1	C12.1	C12.1 了解社會轉變對學校的影響		3	2	1
4	3	2	1	C12.2	回應社會轉變及其相關的社會價值觀	4	3	2	1

第三部分:對持續專業發展範疇的信心及參與程度(續)

現在我在	(請參看右	透的範疇).	0		4. 專業群體關係及服務範疇	我…參與(請參看左邊的範疇。)					
非常	有信心	輕微	完全		4.	時常	經常	很少	從不		
有信心		有信心	沒有信心								
4	3	2	1	C13.1	與個別同工協作	4	3	2	1		
4	3	2	1	C13.2	與不同組別協作	4	3	2	1		
4	3	2	1	C13.3	在建制內與不同組別協作	4	3	2	1		
4	3	2	1	C14.1	與他人分享知識及成功經驗	4	3	2	1		
4	3	2	1	C14.2	爲教師專業發展作出貢獻	4	3	2	1		
4	3	2	1	C15.1	了解教育政策	4	3	2	1		
4	3	2	1	C15.2	回應教育政策	4	3	2	1		
4	3	2	1	C15.3	對教育政策作出貢獻	4	3	2	1		
4	3	2	1	C16.1	與社會大眾保持互動關係	4	3	2	1		
4	3	2	1	C16.2	參與有關教育的社區服務及志願工作	4	3	2	1		

第四部分:對學校所提供的持續專業發展範疇的需要

我感到我們	我感到我任教學校所提供的(請參看右邊			1. 教與學範疇	我對(請參看左邊各持續專業發展範疇內				
各持續專業發展範疇內容)能滿足我的需要。			1. 狄大子形带		容)的需要是。				
非常	同意	不同意	非常			非常迫切	迫切	幾迫切	少許或
同意			不同意						不迫切
4	3	2	1	D1.1	掌握學科內容知識	4	3	2	1
4	3	2	1	D1.2	更新學科內容知識及探求新的學科知識	4	3	2	1
4	3	2	1	D1.3	分享有關科目的教學方法	4	3	2	1
4	3	2	1	D2.1	掌握及應用教學內容知識	4	3	2	1
4	3	2	1	D2.2	設計、落實及改進課程	4	3	2	1
4	3	2	1	D2.3	更新及分享教學內容知識	4	3	2	1
4	3	2	1	D3.1	教學策略及技巧的知識與應用	4	3	2	1
4	3	2	1	D3.2	善用教學語文能力	4	3	2	1
4	3	2	1	D3.3	善用不同教學法及多媒體教學激勵學習動機	4	3	2	1
4	3	2	1	D3.4	研究及發揚教學策略及技巧	4	3	2	1
4	3	2	1	D4.1	掌握評核學生方法及程序	4	3	2	1
4	3	2	1	D4.2	使用學生評核結果	4	3	2	1
4	3	2	1	D4.3	評估及檢討教學及學習計畫	4	3	2	1

第四部分:對學校所提供的持續專業發展範疇的需要(續)

我感到我任教學校所提供的(請參看右邊 各持續專業發展範疇內容)能滿足我的需要。		2. 學生發展範疇		我對(請參看左邊各持續專業發展範疇 內容)的需要是。					
								《修〉라 나기	,1\≅/ :P.
非常	同意	不同意	非常			非常迫切	迫切	幾迫切	少許或
同意			不同意						不迫切
4	3	2	1	D5.1	理解學生的不同需要	4	3	2	1
4	3	2	1	D5.2	識別學生的不同需要及提供支援	4	3	2	1
4	3	2	1	D5.3 與同儕協作,識別學生的不同需要及提供支		4	3	2	1
					援				
4	3	2	1	D6.1	明白與學生建立融洽關係的重要性	4	3	2	1
4	3	2	1	D6.2	培養互信和融洽的師生關係	4	3	2	1
4	3	2	1	D7.1	爲學生提供關顧服務	4	3	2	1
4	3	2	1	D7.2	與同儕協作,提供關顧服務	4	3	2	1
4	3	2	1	D8.1	參與及執行多元的學習計畫	4	3	2	1
4	3	2	1	D8.2	策畫及組織多元的學習計畫	4	3	2	1
4	3	2	1	D8.3	關注學生的全人發展	4	3	2	1

第四部分:對學校所提供的持續專業發展範疇的需要(續)

我感到我任教學校所提供的(請參看右 邊各持續專業發展範疇內容)能滿足我的需 要。				3. 學校發展範疇			持續專業發	後展範疇內	
非常同意	同意	不同意	非常 不同意			非常迫切	迫切	幾迫切	少許或 不迫切
4	3	2	1	D9.1	配合學校的願景、使命、文化及校風	4	3	2	1
4	3	2	1	D9.2	實踐學校的信念、願景及使命	4	3	2	1
4	3	2	1	D9.3	營造關懷和愉悅的校園氣氛	4	3	2	1
4	3	2	1	D9.4	檢視學校願景和使命、推廣學校文化和形象	4	3	2	1
4	3	2	1	D10.1	D10.1 了解學校目標及政策		3	2	1
4	3	2	1	D10.2	執行學校政策、程序及措施	4	3	2	1
4	3	2	1	D10.3	制訂學校政策、檢討有關程序及措施,推動學校持續發展	4	3	2	1
4	3	2	1	D11.1	了解學生家庭背景	4	3	2	1
4	3	2	1	D11.2	與家長保持溝通	4	3	2	1
4	3	2	1	D11.3	投入與家長有關的活動	4	3	2	1
4	3	2	1	D11.4	與家長建立互信,促進學校發展	4	3	2	1
4	3	2	1	D12.1	了解社會轉變對學校的影響	4	3	2	1
4	3	2	1	D12.2	回應社會轉變及其相關的社會價值觀	4	3	2	1

第四部分:對學校所提供的持續專業發展範疇的需要(續)

我感到我任教學校所提供的(請參看右邊 各持續專業發展範疇內容)能滿足我的需要。				4. 專業群體關係及服務範疇	我對(請參看左邊各持續專業發展範容)的需要是。			發展範疇內
		非常				幾迫切	少許或	
同意	应		不同意		护用延切	担奶	及趋势	不迫切
4	3	2	1	D13.1 與個別同工協作	4	3	2	1
4	3	2	1	D13.2 與不同組別協作	4	3	2	1
4	3	2	1	D13.3 在建制內與不同組別協作	4	3	2	1
4	3	2	1	D14.1 與他人分享知識及成功經驗	4	3	2	1
4	3	2	1	D14.2 爲教師專業發展作出貢獻	4	3	2	1
4	3	2	1	D15.1 了解教育政策	4	3	2	1
4	3	2	1	D15.2 回應教育政策	4	3	2	1
4	3	2	1	D15.3 對教育政策作出貢獻	4	3	2	1
4	3	2	1	D16.1 與社會大眾保持互動關係	4	3	2	1
4	3	2	1	D16.2 參與有關教育的社區服務及志願工作	4	3	2	1

第五部分:有沒有一些影響你能參與持續專業發展的阻礙因素?								
(請圈出) 有 沒有								
如果是「有」的話,請列出如下:								
第六部分:有沒有一些影響你能參與持續專業發展的有利因素?								
(請圈出) 有 沒有								
如果是「有」的話,請列出如下:								
第七部分: 其他意見								
, 								
第八部分:個人背景資料								
請以✔表示。								
1. 性別: □ 男 □ 女								
2. 年齡:								
$\square \ 20 - 25$ $\square \ 26 - 30$ $\square \ 31 - 35$ $\square \ 36 - 40$ $\square \ 41 - 45$								
□ 46 - 50 □ 50 或以上								
3. 曾完成的最高學歷:								
□ 教師教育文憑(或同等學歷) □ 學士學位 □ 碩士學位 □博士學位								
□其他(請註明):								
□其他(請註明):								
4. 教學經驗:								
4. 教學經驗: □ 少於 1 年 □ 1-5 年 □ 6-10 年 □ 11-15 年								

第九部分:

-問卷完-多謝您完成本問卷!

Appendix IV: Focus Group Interview Guide

Date:	Ver	nue:
Time:		
Teacher (1):	Teacher (2):	Teacher (3):
Part 1 Background Inform	ation	
Teacher 1:	Teacher 2	Teacher 3
Gender	Gender	Gender
☐ Male	☐ Male	☐ Male
☐ Female	☐ Female	☐ Female
Age □ 20 – 25	Age □20 – 25	Age □ 20 – 25
$\Box 26 - 23$ $\Box 26 - 30$	$\Box 20 - 23$ $\Box 26 - 30$	$\Box 26 - 23$ $\Box 26 - 30$
$\Box 31 - 35$	$\Box 30 - 30$ $\Box 31 - 35$	$\Box 31 - 35$
$\Box 31 - 33$ $\Box 36 - 40$	$\Box 31 - 33$ $\Box 36 - 40$	$\Box 31 - 33$ $\Box 36 - 40$
$\Box 41 - 45$	$\Box 41 - 45$	□ 41 – 45
$\Box 46 - 50$	$\Box 46 - 50$	$\Box 46 - 50$
☐ Above 50	□Above 50	☐ Above 50
Highest Educational	Highest Educational	Highest Educational
Level	Level	Level
☐ Certificate of Education	□Certificate of Education	☐ Certificate of Education
(or equivalent)		(or equivalent)
☐ Bachelor Degree	(or equivalent)	☐ Bachelor Degree
☐Master Degree	☐Bachelor Degree	☐Master Degree
☐ Doctoral Degree	☐Master Degree	☐ Doctoral Degree
☐ Others (please specify):	□Doctoral Degree	☐ Others (please specify):
	□Others (please specify):	
Tagahing Francismas	Too shing Franchism on	Tagahing Francismas
Teaching Experience □ <1 year	Teaching Experience □<1 year	Teaching Experience □ <1 year
\Box 1 – 5 years	$\Box 1 - 5$ years	\Box 1 – 5 years
\Box 6 – 10 years	$\Box 6 - 10$ years	\Box 6 – 10 years
\square 11 – 15 years	$\square 11 - 15$ years	☐ 11 – 15 years
\square 16 – 20 years	\Box 16 – 20 years	\Box 16 – 20 years
☐ Beyond 20 years	☐ Beyond 20 years	☐ Beyond 20 years
Your teaching post	Your teaching post	Your teaching post
□ CM	□CM	□ CM
□ APSM	□APSM	□ APSM
□AM	□AM	□AM
□ PSM	□ PSM	□ PSM

Part 2

1. Look back the results of the CPD questionnaire conducted in April. What do you think about the results? Why?

回顧五月份的「**教師持續專業發展問卷調查**」結果。 您對該問卷調查結果意見如何?爲什麼?

- i. Teacher preferences of CPD activities 教師對持續專業發展活動的喜愛程度
- ii. Teachers' frequency of participation in CPD activities 教師參與持續專業發展活動的頻率
- iii. Frequency of school provision of CPD activities 學校提供持續專業發展活動的頻率
- iv. Teachers' perceptions of effectiveness of CPD activities 教師對持續專業發展活動的效能的觀感
- v. Teachers' participation in CPD domains/dimensions/strands 教師對持續專業發展範疇的參與程度
- vi. Teachers' needs in CPD domains/dimensions/strands 教師對學校所提供的持續專業發展範疇的需要

Part 3 Your Views upon CPD

- 2. What are your views upon CPD? 您對教師持續專業發展意見如何?
 - i. Which CPD activity do you prefer most? Why?您最喜愛哪一個教師持續專業發展活動?爲什麼?
 - ii. Which CPD activity don't you prefer most? Why? 您最不喜愛哪一個教師持續專業發展活動?爲什麼?
 - iii. How frequent do you join in the CPD activity that you prefer most? 您參與您最喜愛的持續專業發展活動的頻率如何?
 - iv. Are there any difficulties do you encounter in your participation in CPD activities? If so, what are they? 您參與提供持續專業發展活動的時候,有沒有遇到困難? 如果有的話,包括了什麼?
 - v. What do you think about your school provision of CPD activities? 您對學校提供持續專業發展活動有什麼意見?
 - vi. How frequent does your school provide the CPD activities? 您的學校所提供的持續專業發展活動有幾頻密?
 - vii. How effective are the CPD activities to you? Why? 對您來說,這些持續專業發展活動有幾有效?為什麼?
 - viii. Which CPD activity is the most effective to you? Why? 您認爲最有效的持續專業發展活動是什麼?爲什麼?

- ix. Which CPD activity is the least effective to you? Why? 您認爲最無效的持續專業發展活動是什麼?爲什麼?
- x. Which domain do you most urgently need? Why? 您認爲哪一個持續專業發展範疇最急切需要? 爲什麼?
- xi. Which domain do you feel least urgently need? Why? 您認爲哪一個持續專業發展範疇的需要最少? 爲什麼?
- xii. Please share a successful or unsuccessful CPD experience. 請分享一次成功或不成功持續專業發展的經驗。
- xiii. What can your school do for you in your CPD? 您的學校可以爲您的持續專業發展做些什麼?

Appendix V: Individual Semi-structured Interview Guide

(1) Meanings of CPD 持續專業發展的意義

1. What does continuing professional development (CPD) mean to you? What is its value?

持續專業發展(CPD)對你的意義是什麼?它的價值是什麼?

- 2. Does CPD help improve your teaching? If so, how? 持續專業發展能否協助你改善教學技巧? 它如何提升你的教學技巧?
- 3. How is CPD important to you? To what extent? In what ways? 持續專業發展對你重要嗎? 有多重要呢? 在哪些方面?

(2) Teachers' Preferences of CPD Activities and Perceptions of Effective CPD Activities

教師對持續專業發展形式的偏好 及 認爲有效的持續專業發展活動

- 1. You mentioned about that you prefer <u>collaborative teaching</u>, lesson <u>planning</u> (CPD activity) the most. Why? How and what do you learn in that CPD activity? 您提到您最喜歡 <u>協作教學,共同備課</u> (持續專業發展活動) ,為什麼呢? 你在這持續專業發展活動中學到什麼? 如何學習到?
- 2. You also mentioned about that you prefer *publications* (CPD activity) the least. Why? 你提到你對出版著作研究作為持續專業進修活動的喜好最少。為什麼呢?
- 3. Is there any other CPD activity which you also find useful? If so, what is it/are they? Why?

您認為還有哪些持續專業發展活動是有用的?如果有,是什麼?為什麼?

4. What in your view are the features of effective and less effective CPD? Could you provide examples of both?

你認為什麼是有效的持續專業發展和效果較差持續專業發展各自有什麼特點?你能提供以上兩者的例子嗎?

- 5. *Last time you mentioned about collaborative teaching in your school. How is it? Is it useful? Effective?
 - *上次你提到你學校的協作教學治動,它是怎樣的?它是有用嗎?有效嗎?

(3) Teachers' Perceptions of CPD Needs 教師對持續專業發展需求的認知

- Do you feel any needs for professional learning/development?
 你對專業學習/發展有什麼需要?
- If so, what are your CPD needs?
 如果有,你有什麼持續專業發展的需要?

3. Have your CPD needs been met? Why / why not? 你的持續專業發展需要達成了嗎?為什麼可以/為什麼不能?

4. What have been the major positive and negative influences on the fulfillment of your CPD needs?

有哪些主要的正面和負面影響因素以達至你的持續專業發展的需要?

5. How are your CPD needs met? Do they have an entitlement? (i.e. Do teachers know about their entitlement if there is one? Who keeps the records?)

您是如何滿足持續專業發展需求?它是否提供一個資格?(即教師是否知道活動是否提供資格認可?誰負責紀錄?)

(4) Teachers' Perceptions of Favourable and Unfavourable Conditions for CPD Participation

教師對參與持續專業發展的有利和不利條件的認知

1. How is CPD organized in your school? How does your school arrange CPD activities for teachers?

你的學校是如何組織持續專業發展?你的學校如何為教師安排持續專業發展活動?

2. Does your school support your CPD? Why/why not? 你的學校是否支持你參與持續專業發展?為什麼支持/為什麼不支持呢?

3. You mentioned about <u>so much work and clerical work</u> (e.g. heavy workload/time...) as

work (e.g. heavy workload)?

你提到需要處理<u>很多事情和文書工作</u> (如:工作繁重/時間...)是你參與持續專業發展的障礙。需要處理很多事情和文書工作 是什麼意思(例如:繁重的工作量)?

obstacles to your CPD participation. What do you mean by so much work and clerical

4. How much time do you spend on CPD in a week? *

你每星期花多少時間在持續專業進修治動上?*

5. What CPD activities do you participate most? Why? What motivates you in participating in CPD activities?

你最經常參加哪種持續專業發展活動?為什麼?是什麼促使你參與該持續專業發展活動?

6. How do you feel about CPD in this school?

你覺得貴校的的持續專業進修活動如何?

7. How do other teachers feel? Is CPD valued? Is it high profile?

其他老師覺得如何? 持續專業發展是否具參與價值? 活動是否被重視?

8. Are there any other personally or professionally related factors which promote or hinder your own professional development?

當中是否有其他個人或專業相關因素促使或阻礙你進行專業發展?

(5) Teachers' Perceptions about School Support to CPD

教師對學校的支持持續專業發展的感知

1. What are teachers' views of CPD in this school? How enthusiastic about their own CPD?

貴校其他教師對貴校持續專業發展有什麼意見? 他們是否積極參與持續專業發展?

- 2. What factors in this school promote / hinder teachers' CPD development? 貴校有什麼因素促進/阻礙教師參與持續專業發展的進修?
- 3. Is there any systematic CPD plan in the school? When is it started? How is the plan carried out? Who is responsible for that? How is the process?
 貴校是否有任何系統性的持續專業發展計劃? 它是在什麼時候開始? 該計劃是如何進行? 由誰負責? 過程是什樣的?
- 4. Can you describe one or two recent CPD events that were organized by this school for teachers?

可否形容一下您最近校舉辦的持續專業發展活動呢?

Appendix VI: Participant Information

Part 1: Participants in the CPD Survey

Table VI-a: Gender distribution

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Male	17	19.5	19.5	19.5
	Female	70	80.5	80.5	100.0
	Total	87	100.0	100.0	

Table VI-b: Age distribution

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	20-25	10	11.5	11.5	11.5
	26-30	44	50.6	50.6	62.1
	31-35	18	20.7	20.7	82.8
	36-40	5	5.7	5.7	88.5
	41-45	5	5.7	5.7	94.3
	46-50	1	1.1	1.1	95.4
	ABOVE 50	4	4.6	4.6	100.0
	Total	87	100.0	100.0	

Table VI-c: Respondents' highest academic qualifications

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Teacher Certificate	9	10.3	10.3	10.3
	Bachelor Degree	65	74.7	74.7	85.1
	Master Degree	13	14.9	14.9	100.0
	Total	87	100.0	100.0	

Table VI-d: Overall distribution of teaching experiences

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Less than 1 year	4	4.6	4.6	4.6
	1-5	33	37.9	37.9	42.5
	6-10	31	35.6	35.6	78.2
	11-15	8	9.2	9.2	87.4
	16-20	3	3.4	3.4	90.8
	Above 20	8	9.2	9.2	100.0
	Total	87	100.0	100.0	

Table VI-e: Overall distribution of teaching rank

	•				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	СМ	63	72.4	72.4	72.4
	APSM	10	11.5	11.5	83.9
	AM	8	9.2	9.2	93.1
	PSM	6	6.9	6.9	100.0
	Total	87	100.0	100.0	

Part 2: Participants in the focus group interviews and individual interviews

Teacher:	Teacher J
Working school:	Α
Gender:	F
Years of teaching experience:	Beyond 20 years
Age:	46-50
Subjects taught:	Mathematics
Highest educational level:	Certificate in education
Teaching post:	Certificate Mistress (CM) Teacher

Teacher:	Teacher F
Working school:	A
Gender:	F
Years of teaching experience:	11-15 years
Age:	31-
Subjects taught:	Mandarin, English
Highest educational level:	Master degree
Teaching post:	Assistant Primary School Mistress (APSM)
	Teacher

Teacher:	Teacher E	
Working school:	A	
Gender:	F	
Years of teaching experience:	11-15 years	
Age:	31-35	
Subjects taught:	English	
Highest educational level:	Bachelor degree	
Teaching post:	Assistant Primary School Mistress (APSM)	
	Teacher	

Teacher:	Teacher Y
Working school:	С
Gender:	Female
Years of teaching experience:	11-15 years
Age:	31-35
Subjects taught:	Chinese
Highest educational level:	Master degree
Teaching post:	Primary School Mistress (Curriculum
	Development) (PSMCD) Teacher

Teacher:	Teacher N
Working school:	С
Gender:	Female
Years of teaching experience:	1-5 years
Age:	20-25
Subjects taught:	General Studies
Highest educational level:	Bachelor degree
Teaching post:	Certificate Mistress (CM) Teacher

Teacher:	Teacher K
Working school:	С
Gender:	Male
Years of teaching experience:	1-5 years
Age:	20-25
Subjects taught:	Chinese
Highest educational level:	Bachelor degree
Teaching post:	Certificate Master (CM) Teacher

Appendix VII: Letters to Principals

Dear Principal,

Re: Request for Permission to Conduct Research

I am currently involved in a research project concerning continuing professional development of teachers. The title of the project is "Teachers' Perceptions and Experiences of Continuing Professional Development (CPD): Opportunities and Needs in Hong Kong Primary Schools", aiming to explore teachers' perceptions of continuing professional development. The study is performed as partial fulfilment of the requirements of my Doctor of Education degree in lifelong education at the University of Nottingham in England. Teachers' participation in this project will provide useful information on this topic. I sincerely ask you for the favour of granting me a chance to conduct this study in your school.

In the study, teachers will be asked to complete a questionnaire survey in late April. Teachers' participation in this study is strictly voluntary. All data from this project are confidential and will be used for research purposes only. Data from questionnaires and instruments are anonymous. All participant teachers will return the questionnaires using individual envelopes as provided.

For reasons of cutting down on postage costs, I would very much appreciate it if the completed questionnaires were all returned as a single package to me using the enclosed large envelop. I will come to your school to collect it at your most convenient time.

Besides, teachers will be invited for interviews for further understanding their perceptions upon continuing professional development. All the data will be kept confidential.

I look forward to hearing from you. Should you have any enquiries, I can be easily reached at xxxxxx (mobile) or xxxxxxxxxx (email). Thank you very much as I look forward to your support and cooperation.

Yours sincerely,

Wan Wai Yan, Sally

Appendix VIII: Participant Consent Form

THE UNIVERSITY OF NOTTINGHAM SCHOOL OF EDUCATION PARTICIPANT CONSENT FORM

Project title Teachers' Perceptions and Experiences of Continuing Professional

Development (CPD): Opportunities and Needs in Hong Kong

Primary Schools

Researcher's name Wan Wai Yan Sally
Supervisor's name Prof. Pamela Sammons

- I have read the Participant Information Sheet and the nature and purpose of the research project has been explained to me. I understand and agree to take part.
- I understand the purpose of the research project and my involvement in it.
- I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.
- I understand that while information gained during the study may be published,
 I will not be identified and my personal results will remain confidential.
- I understand that I will be audiotaped during the interview.
- I understand that data will be stored in the researcher's office and all data will be kept strictly confidential.
- I understand that I may contact the researcher or supervisor if I require further information about the research, and that I may contact the Research Ethics Coordinator of the School of Education, University of Nottingham, if I wish to make a complaint relating to my involvement in the research.

Signed	(research participant)
Print name	Date
Contact details	

Researcher: Wan Wai Yan Sally { sallywywan@gmail.com}

Supervisor: Professor Pamela Sammons {pam.sammons@nottingham.ac.uk}

School of Education Research Ethics

 $Coordinator: \ \underline{educationresearchethics@nottingham.ac.uk}$

Appendix IX: Chi-square Test Results of Relationship between Demographic Characteristics and Teachers' Perceptions of Factors Affecting CPD Participation

Table IX-a: Chi-Square test for testing relationship between gender and teachers' perceived facilitating factors affecting CPD

Facilitating Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	2.746(b)	1	1.00
Factor 2: Personal	.654(b)	1	.42
Factor 3: Financial	.046(b)	1	.83
Factor 4: Time	.497(b)	1	.48
Factor 5: CPD Provider	.395(b)	1	.53
Factor 6: Family	1.208(b)	1	.27
Factor 7: Relationships with Others	1.208(b)	1	.27
Factor 8: Government	.246(b)	1	.62

Table IX-b: Chi-Square test for testing relationship between age and teachers' perceived facilitating factors affecting CPD

Facilitating Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	2.418(a)	2	.30
Factor 2: Personal	1.467(a)	2	.48
Factor 3: Financial	4.556(a)	2	.10
Factor 4: Time	5.696(a)	2	.06
Factor 5: CPD Provider	.996(a)	2	.61
Factor 6: Family	1.251(a)	2	.54
Factor 7: Relationships with Others	.713(a)	2	.70
Factor 8: Government	2.815(a)	2	.25

Table IX-c: Chi-Square test for testing relationship between the highest academic qualifications and teachers' perceived facilitating factors affecting CPD

Facilitating Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	3.181(a)	2	.20
Factor 2: Personal	1.405(a)	2	.50
Factor 3: Financial	2.771(a)	2	.25
Factor 4: Time	.693(a)	2	.71
Factor 5: CPD Provider	1.745(a)	2	.42
Factor 6: Family	.693(a)	2	.71
Factor 7: Relationships with Others	3.585(a)	2	.17
Factor 8: Government	5.758(a)	2	.06

Table IX-d: Chi-Square test for testing relationship between years of teaching experience and teachers' perceived facilitating factors affecting CPD

Facilitating Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	1.710(a)	2	.43
Factor 2: Personal	4.367(a)	2	.11
Factor 3: Financial	2.092(a)	2	.35
Factor 4: Time	3.698(a)	2	.16
Factor 5: CPD Provider	4.749(a)	2	.09
Factor 6: Family	2.766(a)	2	.25
Factor 7: Relationships with Others	3.698(a)	2	.16
Factor 8: Government	1.827(a)	2	.40

Table IX-e: Chi-Square test for testing relationship between teaching rank and teachers' perceived facilitating factors affecting CPD

Facilitating Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	3.439(a)	3	.33
Factor 2: Personal	2.323(a)	3	.51
Factor 3: Financial	3.824(a)	3	.28
Factor 4: Time	.780(a)	3	.85
Factor 5: CPD Provider	3.930(a)	3	.27
Factor 6: Family	3.112(a)	3	.38
Factor 7: Relationships with Others	.780(a)	3	.85
Factor 8: Government	.385(a)	3	.94

Table IX-f: Chi-Square test for testing relationship between school and teachers' perceived facilitating factors affecting CPD

Facilitating Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	.227(a)	2	.89
Factor 2: Personal	1.438(a)	2	.49
Factor 3: Financial	.201(a)	2	.91
Factor 4: Time	2.095(a)	2	.35
Factor 5: CPD Provider	3.299(a)	2	.19
Factor 6: Family	.260(a)	2	.88
Factor 7: Relationships with Others	2.095(a)	2	.35
Factor 8: Government	1.503(a)	2	.47

Table IX-g: Chi-Square test for testing relationship between gender and teachers' perceived inhibiting factors affecting CPD

Inhibiting Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	.497(b)	1	.48
Factor 2: Personal	.246(b)	1	.62
Factor 3: Financial	6.846(b)	1	.01
Factor 4: Time	.094(b)	1	.76
Factor 5: CPD Provider	1.208(b)	1	.27
Factor 6: Heavy Workload	4.826(b)	1	.03

(to the nearest 2d.p.)

Table IX-h: Chi-Square test for testing relationship between age and teachers' perceived inhibiting factors affecting CPD

Inhibiting Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	1.251(a)	2	.54
Factor 2: Personal	2.815(a)	2	.25
Factor 3: Financial	1.986(a)	2	.37
Factor 4: Time	1.858(a)	2	.40
Factor 5: CPD Provider	.713(a)	2	.70
Factor 6: Heavy Workload	5.027(a)	2	.08

Table IX-i: Chi-Square test for testing relationship between the highest academic qualifications and teachers' perceived inhibiting factors affecting CPD

Inhibiting Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	3.585(a)	2	.17
Factor 2: Personal	5.758(a)	2	.06
Factor 3: Financial	.018(a)	2	.99
Factor 4: Time	.693(a)	2	.71
Factor 5: CPD Provider	.193(a)	2	.91
Factor 6: Heavy Workload	1.745(a)	2	.42

Table IX-j: Chi-Square test for testing relationship between years of teaching experience and teachers' perceived inhibiting factors affecting CPD

Inhibiting Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	.593(a)	2	.74
Factor 2: Personal	1.827(a)	2	.40
Factor 3: Financial	3.264(a)	2	.20
Factor 4: Time	.004(a)	2	1.0
Factor 5: CPD Provider	.593(a)	2	.74
Factor 6: Heavy Workload	4.803(a)	2	.09

(to the nearest 2d.p.)

Table IX-k: Chi-Square test for testing relationship between teaching rank and teachers' perceived inhibiting factors affecting CPD

Inhibiting Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	4.225(a)	3	.24
Factor 2: Personal	.385(a)	3	.94
Factor 3: Financial	3.157(a)	3	.37
Factor 4: Time	.253(a)	3	.97
Factor 5: CPD Provider	4.225(a)	3	.24
Factor 6: Heavy Workload	.475(a)	3	.92

Table IX-I: Chi-Square test for testing relationship between school and teachers' perceived inhibiting factors affecting CPD

Inhibiting Factors	Value	df	Asymp. Sig. (2-sided)
Factor 1: School	3.041(a)	2	.22
Factor 2: Personal	1.503(a)	2	.47
Factor 3: Financial	1.325(a)	2	.52
Factor 4: Time	.704(a)	2	.70
Factor 5: CPD Provider	3.935(a)	2	.14
Factor 6: Heavy Workload	18.830(a)	2	.00