

กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน
ในสังกัดกรุงเทพมหานคร



นางสาวกาญจน์วรินทร์ ผลอนันต์

จุฬาลงกรณ์มหาวิทยาลัย

CHULALONGKORN UNIVERSITY

บทคัดย่อและแฟ้มข้อมูลฉบับเต็มของวิทยานิพนธ์ตั้งแต่ปีการศึกษา 2554 ที่ให้บริการในคลังปัญญาจุฬาฯ (CUIR)
เป็นแฟ้มข้อมูลของนิสิตเจ้าของวิทยานิพนธ์ ที่ส่งผ่านทางบัณฑิตวิทยาลัย

The abstract and full text of theses from the academic year 2011 in Chulalongkorn University Intellectual Repository (CUIR)
are the thesis authors' files submitted through the University Graduate School.

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาครุศาสตรดุษฎีบัณฑิต
สาขาวิชาบริหารการศึกษา ภาควิชานโยบาย การจัดการและความเป็นผู้นำทางการศึกษา

คณะครุศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

ปีการศึกษา 2557

ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

MANAGEMENT STRATEGIES FOR CREATING PROFESSIONAL LEARNING
COMMUNITY IN SCHOOLS UNDER THE BANGKOK
METROPOLITAN ADMINISTRATION

Miss Kaanwarin Polanunt



A Dissertation Submitted in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy Program in Educational Administration
Department of Educational Policy Management and Leadership

Faculty of Education

Chulalongkorn University

Academic Year 2014

Copyright of Chulalongkorn University

Thesis Title	MANAGEMENT STRATEGIES FOR CREATING PROFESSIONAL LEARNING COMMUNITY IN SCHOOLS UNDER THE BANGKOK METROPOLITAN ADMINISTRATION
By	Miss Kaanwarin Polanunt
Field of Study	Educational Administration
Thesis Advisor	Assistant Professor Pongsin Viseshsiri, Ph.D.
Thesis Co-Advisor	Piyapong Sumettikoon, Ed.D.

Accepted by the Faculty of Education, Chulalongkorn University in Partial Fulfillment of the Requirements for the Doctoral Degree

..... Dean of the Faculty of Education
(Assistant Professor Bancha Chalapirom, Ph.D.)

THESIS COMMITTEE

..... Chairman
(Professor Pruet Siribanpitak, Ph.D.)

..... Thesis Advisor
(Assistant Professor Pongsin Viseshsiri, Ph.D.)

..... Thesis Co-Advisor
(Piyapong Sumettikoon, Ed.D.)

..... Examiner
(Assistant Professor Chayapim Usaho, Ph.D.)

..... Examiner
(Dhirapat Kulophas, Ph.D.)

..... External Examiner
(Professor Paitoon Sinlarat, Ph.D.)

กาญจน์วรินทร์ ผลอนันต์ : กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร (MANAGEMENT STRATEGIES FOR CREATING PROFESSIONAL LEARNING COMMUNITY IN SCHOOLS UNDER THE BANGKOK METROPOLITAN ADMINISTRATION) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: ผศ. ดร.ปองสิน วิเศษศิริ , อ.ที่ปรึกษาวิทยานิพนธ์ร่วม: อ. ดร.ปิยพงษ์ สุเมตติกุล, 303 หน้า.

วัตถุประสงค์ของการวิจัยครั้งนี้เพื่อ 1) ศึกษาสภาพปัจจุบันและสภาพที่พึงประสงค์ของการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร 2) วิเคราะห์จุดแข็ง จุดอ่อน โอกาส และภาวะคุกคามของการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานครและ 3) พัฒนากลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร โดยใช้วิธีวิจัยแบบผสมผสาน กลุ่มตัวอย่าง ได้แก่ โรงเรียนในสังกัดกรุงเทพมหานคร จำนวน 209 โรงเรียน ผู้ให้ข้อมูลได้แก่ผู้บริหารและครู 418 คน เครื่องมือที่ใช้ในการวิจัย ได้แก่ แบบสอบถาม และแบบประเมินความเหมาะสมและความเป็นไปได้ของกลยุทธ์ สถิติที่ใช้ในการวิเคราะห์ข้อมูล คือ ค่าความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน ค่าดัชนี PNI_{Modified} และการวิเคราะห์เนื้อหาจากการสนทนากลุ่ม

ผลการวิจัยพบว่า 1) สภาพปัจจุบันของการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร ในภาพรวมอยู่ในระดับมาก (= 4.10) เมื่อพิจารณารายด้าน การมีภาวะผู้นำร่วมและการตัดสินใจร่วมกัน มีค่าเฉลี่ยสูงสุด (= 4.31) สภาพที่พึงประสงค์ของการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร ในภาพรวมอยู่ในระดับมากที่สุด (= 4.69) เมื่อพิจารณารายด้าน การมีภาวะผู้นำร่วมและการตัดสินใจร่วมกัน มีค่าเฉลี่ยสูงสุด (= 4.72) 2) จุดแข็งของการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร คือ การมีภาวะผู้นำร่วมและการตัดสินใจร่วมกัน และการมีวิสัยทัศน์ พันธกิจ และเป้าหมายร่วมกัน ส่วนจุดอ่อน คือ การทำงานร่วมกันเป็นทีมและแบ่งปันแนวทางปฏิบัติ การเรียนรู้ร่วมกันจากการสอบถาม การสนทนาที่สะท้อนความคิดและการนำความรู้ไปใช้ และสภาพของการสนับสนุนชุมชนแห่งการเรียนรู้ทางวิชาชีพตามลำดับ โอกาสของการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร คือ สภาพเทคโนโลยี ส่วนภาวะคุกคาม คือ สภาพเศรษฐกิจ การเมืองและนโยบายของรัฐ และสภาพสังคม 3) กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร ที่ผู้วิจัยพัฒนาขึ้น มี 5 กลยุทธ์หลัก คือ (1) ส่งเสริมการทำงานร่วมกันเป็นทีมและแบ่งปันแนวทางปฏิบัติ (2) ส่งเสริมการเรียนรู้ร่วมกันจากการสอบถาม การสนทนาที่สะท้อนความคิดและการนำความรู้ไปใช้ (3) พัฒนาขีดความสามารถของครูและเพิ่มประสิทธิภาพของสภาพของการสนับสนุนชุมชนแห่งการเรียนรู้ทางวิชาชีพ (4) ยกระดับคุณภาพของการมีวิสัยทัศน์ พันธกิจ และเป้าหมายร่วมกัน และ (5) เพิ่มประสิทธิภาพของการมีภาวะผู้นำร่วมและการตัดสินใจร่วมกัน

ภาควิชา	นโยบาย การจัดการและความเป็นผู้นำทาง	ลายมือชื่อนิติ
	การศึกษา	ลายมือชื่อ อ.ที่ปรึกษาหลัก
สาขาวิชา	บริหารการศึกษา	ลายมือชื่อ อ.ที่ปรึกษาร่วม

5384477227 : MAJOR EDUCATIONAL ADMINISTRATION

KEYWORDS: PROFESSIONAL LEARNING COMMUNITIES / MANAGEMENT STRATEGIES TO CREATE PROFESSIONAL LEARNING COMMUNITIES

KAANWARIN POLANUNT: MANAGEMENT STRATEGIES FOR CREATING PROFESSIONAL LEARNING COMMUNITY IN SCHOOLS UNDER THE BANGKOK METROPOLITAN ADMINISTRATION. ADVISOR: ASST. PROF. PONGSIN VISESHSIRI, Ph.D., CO-ADVISOR: PIYAPONG SUMETTIKOON, Ed.D., 303 pp.

The objectives of this research study were: 1) To study the current and desirable state of management in regard to creating professional learning communities of schools under the Bangkok Metropolitan Administration; 2) To analyse strengths, weaknesses, opportunities and threats of the management in regard to creating professional learning communities of schools under the Bangkok Metropolitan Administration; and 3) To develop management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration. The study was a mixed method research and involved a sample of 209 schools and 418 school administrators and teachers. The instruments used in this study were a questionnaire and a strategic evaluation form of feasibility and appropriateness. The data was analysed by frequency, percentage, average, standard deviation, PNI Modified and content analysis.

The results showed the following: 1) The current state of the management in schools under the Bangkok Metropolitan Administration with respect to creating professional learning communities was overall at a high level (= 4.10). When considering each attribute, shared leadership and shared decision-making were the highest average (= 4.31). The desirable state of the management with respect to creating professional learning communities in schools under the Bangkok Metropolitan Administration was at the highest level overall (= 4.69). When considering each attribute, shared leadership and shared decision-making were the highest average (= 4.72). 2) The strengths of the management in regard to creating professional learning communities of schools under the Bangkok Metropolitan Administration were shared leadership and shared decision-making and shared vision, mission and goals respectively. Conversely, the weaknesses of the management in regard to creating professional learning communities of schools under the Bangkok Metropolitan Administration were collaboration and shared practice focusing on improving student achievement, the collective learning through inquiry, reflective dialogues and application of learning and the supportive conditions respectively. The management considered technology as the opportunity in creating professional learning communities of schools under the Bangkok Metropolitan Administration. On the other hand, the management saw the threats to creating professional learning communities of schools under the Bangkok Metropolitan Administration as the economic aspect, the political aspect and the social aspect respectively. 3) There are five management strategies involved in creating professional learning communities of schools under the Bangkok Metropolitan Administration and these include: (i) School management reform to create professional learning communities of schools under the Bangkok Metropolitan Administration by promoting collaborative team work; (ii) School management reform to create professional learning communities of schools under the Bangkok Metropolitan Administration by promoting collective learning and application of learning; (iii) School management reform to create professional learning communities of schools under the Bangkok Metropolitan Administration by increasing the support of teachers' capacities and the effectiveness of structural conditions; (iv) School management reform to create professional learning communities of schools under the Bangkok Metropolitan Administration by raising the quality of shared vision, mission and goals; and (v) School management reform to create professional learning communities of schools under the Bangkok Metropolitan Administration by increasing the effectiveness of shared leadership and shared decision-making.

Department: Educational Policy Management and
Leadership

Field of Study: Educational Administration

Academic Year: 2014

Student's Signature

Advisor's Signature

Co-Advisor's Signature

ACKNOWLEDGEMENTS

I would like to express my gratitude to Assistant Professor Dr. Pongsin Viseshsiri, my advisor, and Dr. Piyapong Sumettikul, my co-advisor, for their guidance, support, caring, and encouragement given to me in many past years during the process of my doctoral research studies.

My special gratitude goes to Professor Dr. Pruet Siribanpitak, the Chair of my dissertation committee, Assistant Professor Dr. Chayapim Usaho, Dr. Dhirapat Kulophas and Professor Emeritus Dr. Paitoon Sinlarat, members of the dissertation committee. I would like to thank you all for sharing your wisdom and valuable advice which have guided me in refining my dissertation writing.

I would like to thank you all the faculty members of the Department of Educational Policies, Leadership and Management, the Educational Administration Programme, Faculty of Education, Chulalongkorn University for guiding me to develop my knowledge background beyond the textbooks.

I would like to recognise and thank the teachers and administrators of schools under the Bangkok Metropolitan Administration for taking the time to participate in answering the research questionnaire and my special thanks to all the specialists and stakeholders for spending their precious time to examine my research tools and to participate in the focus group. They gave me the valuable inputs to my research findings.

I would like to thank my parents who are my inspiration and my brothers and their families, they would have been proud of my accomplishments.

And last but not least, I would like to thank my doctoral studies classmates, Brother Dr. Sakda Sakhonthawat, Dr. Sumalee Suteekul, Dr. Sunee Chaisooksung, Dr. Phatsayakorn Laosawatdikul and Dr. Parujee Charoenpao. My dissertation would not have been possible without their support.

CONTENTS

	Page
THAI ABSTRACT	iv
ENGLISH ABSTRACT.....	v
ACKNOWLEDGEMENTS	vi
CONTENTS.....	vii
LIST OF TABLES	xi
LIST OF FIGURES	xiv
Chapter 1 Introduction	1
1.1 Rationale and Problems of Practice	1
1.2 Research Questions.....	8
1.3 Research Objectives.....	8
1.4 Operational Definition of Terms	9
1.5 Theoretical Frameworks	12
1.6 Scope of Research Study	16
1.7 Benefits of the Research Study.....	16
Chapter 2 Review of Literature.....	18
2.1 Professional Learning Communities.....	18
2.1.1 Concept of Professional Learning Communities.....	18
2.1.2 Evolvement of the Professional Learning Communities.....	19
2.1.3 Definition of Professional Learning Community	27
2.1.4 Attributes of Professional Learning Communities.....	30
2.2 Management of Schools under the Bangkok Metropolitan Administration (BMA)	38
2.2.1 Department of Education, Bangkok Metropolitan Administration	40
2.2.2 Schools under the Bangkok Metropolitan Administration.....	52
2.2.3 Coaching Culture Technique	54
2.3 School Management	56
2.3.1 Scope of School Management Tasks.....	64
2.3.2 Curriculum Management.....	65

	Page
2.3.3 Curriculum Management in Thailand	67
2.3.4 Tasks of Curriculum Management	68
2.4 Strategic management.....	69
2.4.1 Process of Strategic Management	72
2.5 Related Literature and Studies on Professional Learning Communities	82
2.5.1 Thai Research Studies	82
Chapter 3 Research Methodology.....	87
3.1 Research Design	87
3.2 Research Process	88
3.2.1 To study the current and desired states of management to create professional learning of schools under the Bangkok Metropolitan Administration.....	90
3.2.2 Analysis of Strengths, Weaknesses, Opportunities and Threats of Management of Schools under the Bangkok Metropolitan Administration.....	98
3.2.3 To develop management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration.....	98
Chapter 4 Results of Data Analysis	103
4.1 The current state and desired states of management to create professional learning communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA)	104
4.1.1 Demographic data of sample schools and informants.....	105
4.1.2 The current state and desired states of management to create professional learning communities obtained from the analysis of the internal environment.....	107
4.1.3 The current state and desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the analysis of the external environment.....	109
4.2 Strengths, Weaknesses, Opportunities and Threats of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration	114

	Page
4.2.1 The analysis of the internal environment of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration	114
4.2.2 The analysis of the external environment of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration	117
4.3 Management Strategies.....	130
4.3.1 SWOT Matrix.....	130
4.3.2 The individual specialists and stakeholders examine the suitability and feasibility of the first draft of management strategies to create professional learning communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA).....	171
4.3.3. The examination of the suitability and feasibility of the second draft of management strategies to create professional learning of schools under the Bangkok Metropolitan Administration by the focus group which is summarised into details as follows:	176
4.3.4 The second draft and the final version of the management strategies of schools under the BMA	177
Chapter 5 Summary of Research Findings, Discussion and Recommendations	
Introduction.....	194
5.1 Summary of Research Findings.....	195
5.1.1 The current state and desired state of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration	195
5.1.2 Strengths, Weaknesses, Opportunities and Threats of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration	196
5.1.3 Management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration	197
5.2 Discussion of Research Findings	215
5.2.1 Attributes of professional learning communities	215
5.2.2 Management of schools under the Bangkok Metropolitan Administration.....	217

	Page
5.2.3 Strengths, Weaknesses, Opportunities and Threats of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration	219
5.2.4 Development of Management Strategies to Create Professional Learning of Schools under the Bangkok Metropolitan Administration	224
5.3 Recommendations.....	234
5.3.1 Recommendations for implementing the research findings	234
5.3.2. Recommendations for the Future Research Studies.....	237
REFERENCES	240
Appendix A Research Tools	253
Appendix B Name List of Specialists and Stakeholders	264
Appendix C Letters of Cooperation.....	268
Appendix D Results of Data Analysis	274
Appendix E Vita	300
VITA.....	303

LIST OF TABLES

Table 1 : PISA scores in mathematics and science in Thailand and other	1
Table 2: Level of Participation in a Professional Community.....	26
Table 3: A summary of definitions of Professional Learning Communities	29
Table 4: Attributes of Professional Learning Communities	31
Table 5: Synthesised Attributes of Professional Learning Communities	32
Table 6: Number of Schools under the Bangkok Metropolitan Administration in the academic year 2557 B.E., located in 50 districts of 6 Bangkok area groups, classified by size (as of 19/12/2557)	53
Table 7: Analysis of the management process.....	59
Table 8: Table of Analysed and Synthesised Management Process.....	60
Table 9: PEST analysis template	75
Table 10: The sampling schools under the Bangkok Metropolitan Administration....	92
Table 11: Specialists are classified based on their expertise.	95
Table 12: Number and percentage of returned questionnaires from sample schools under the Bangkok Metropolitan Administration in the academic year 2014 -2015 classified by educational areas in Bangkok where the schools are located.....	105
Table 13: Number and Percentage of Informants	106
Table 14: The current and desired states of management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the overall analysis of the internal environment.....	108
Table 15: The current state and desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the overall analysis of the external environment.....	110
Table 16: The current state and desired state of each aspect of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the analysis of the external environment.....	111

Table 17: The PNI _{Modified} of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the overall analysis of the internal environment.....	116
Table 18: The PNI _{Modified} of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the overall analysis of the external environment.....	118
Table 19: The PNI _{Modified} of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the analysis of the external environment under each aspect is displayed on the table as follows:	119
Table 20: The PNI _{Modified} of management to create professional learning communities of schools under the BMA obtained from the analysis of the internal environment on each aspect	123
Table 21: SWOT Matrix of Management to Create Professional Learning Communities of Schools under the Bangkok Metropolitan Administration....	131
Table 22: SO / ST / WO / WT of Management to create Professional learning communities of Schools under the Bangkok Metropolitan Administration.....	142
Table 23: Summary of the SWOT Analysis	150
Table 24: Summary of the Results of the TOWS Matrix analysis of the attributes of the PLCs	150
Table 25: The first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration based on the PNI _{modified}	154
Table 26: The first draft of main, minor strategies and procedures of management to create professional learning communities of schools under the Bangkok Metropolitan Administration	156
Table 27: The status of the specialists and stakeholders who examine the suitability and validity of the first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration.....	171
Table 28: The results of the examination on the suitability and feasibility of the first draft of main and minor strategies of management to create professional learning communities of schools under the Bangkok	

Metropolitan Administration by the individual specialists and stakeholders are as follows:.....	172
Table 29: The results of the examination on the suitability and feasibility of the first draft of minor strategies of management to create professional learning communities of schools under the Bangkok Metropolitan Administration by the individual specialists and stakeholders are as follows:.....	174
Table 30: The final version of management strategies and procedures to create professional learning of schools under the Bangkok Metropolitan Administration.....	178



LIST OF FIGURES

Figure 1: PISA results in Math (2003- 2009) and Science (2006-2009)	2
Figure 2: Conceptual framework for the research study of management strategies to create Professional Learning Communities of schools under the Bangkok Metropolitan Administration	15
Figure 3: Organisation Chart of the Bangkok Metropolitan Administration.....	
Figure 4: Structural Divisions under the Department of Education, Bangkok Metropolitan Administration	42
Figure 5: Four Basic Steps of Management Strategies	72
Figure 6: TOWS matrix to formulate strategies	79
Figure 7: Four basic steps of management strategies for creating PLCs	82
Figure 8: Research Process.....	88
Figure 9: Management Strategies to Create Professional Learning of Schools under the Bangkok Metropolitan Administration	198

Chapter 1

Introduction

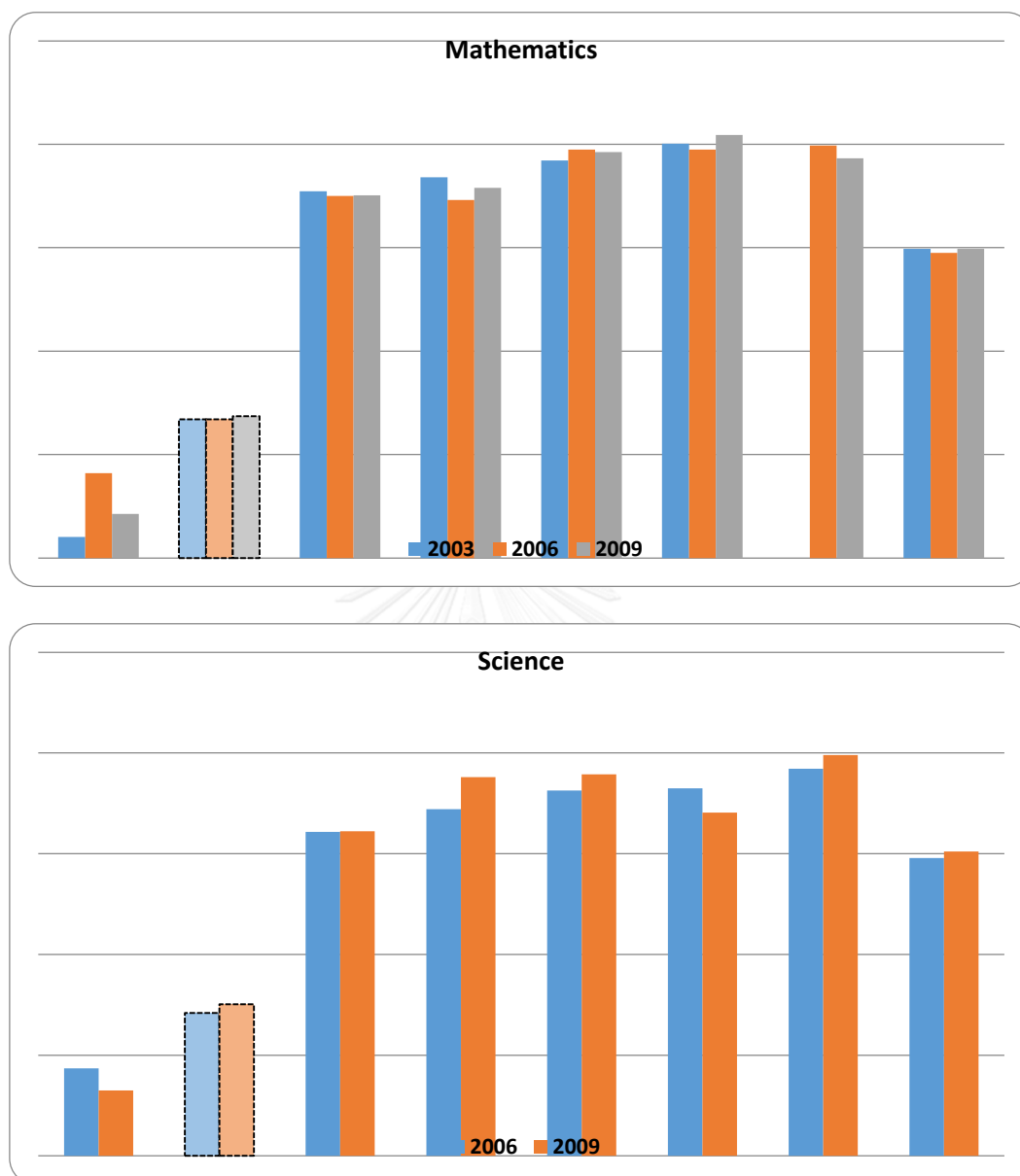
1.1 Rationale and Problems of Practice

There have been two attempts at education reform in Thailand over the past few decades. The first phase of education reform in Thailand took place in the late 90s and the **National Education Act was then promulgated in 1999. During this period of reform, which took about 10 years to implement**, a great amount of time and resources were spent on various projects and management systems; however, the quality of learning did not improve. According to the report of the Institute for the Promotion of Teaching Science and Technology (IPST), Thai students had not demonstrated adequate achievement in reading, mathematics and science assessments compared to other international students around the world. Thailand was ranked in 47th place for reading (out of the 65 countries that participated in the assessment), in 48th place for mathematics, and in 47th place for science on the OECD Programme for International Student Assessment 2009. (PISA, 2009) The IPST reported that one of the key factors which had affected the students' achievements was the lack of teachers specifically qualified to teach the different subjects.

Table 1 : PISA scores in mathematics and science in Thailand and other selected economies (mean score)

	2003	2006	2009		2006	2009
Indonesia	360	391	371	Indonesia	393	383
Thailand	417	417	419	Thailand	421	425
Macao, China	527	525	525	Macao, China	511	511
Japan	534	523	529	Korea	522	538
Korea	542	547	546	Japan	531	539
Hong Kong, China	550	547	555	Chinese Taipei	532	520
Chinese Taipei		549	543	Hong Kong, China	542	549
OECD average	500	497	499	OECD average	498	501
				Singapore		542
				Shanghai, China		575

Figure 1: PISA results in Math (2003- 2009) and Science (2006-2009)



Source: OECD (2011), *PISA 2009 Results: Learning Trends: Changes in Student Performance since 2000 (Volume 5)*, OECD Publishing, Paris.

As a result, the second, and current, phase of education reform (2009 – 2018) was started and it is focusing on changes in four areas: the development of the quality of Thai people; the development of teachers; the development of educational institutions; and the development of new systems of educational management. (Foreign Office the Government Public Relations Department, 2011). The goal of this education reform is to enable learners to acquire life skills that are essential to compete in 21st century society, i.e. creativity and higher-order thinking skills and to become

responsible global citizens. One of the ways to achieve the reform goal is through teachers, by strengthening their ability to incorporate pedagogical approaches that promote desirable qualities in students. Learner-centred teaching methods and project-based learning (PBL) are parts of such approaches. (UNESCO, 2011)

Nevertheless, the 2013-2014 World Economic Forum's report findings on global competitiveness revealed that the quality of education in Thailand, both at Secondary School level and Higher Education level, was "abnormally low" in comparison to many other ASEAN countries. Thailand's relatively low standard of education has continued to be a serious concern. Dr. Surin Pitsuwan, a former Secretary-General of ASEAN, stated on 9th September 2013, "We must pay attention to the content of the WEF's findings. Our standing is getting worse. We have seen Thailand's scores sliding down the scales in all categories survey after survey, year after year. This is a serious matter that calls for a national strategy to reverse the trend.....We talk a lot about teaching our students to be critical, to think independently and to solve problems, not use rote learning and memorization." He called for urgent education reform in many aspects including the organisational system, the quality of teaching and learning, resources, libraries and laboratories. Mr. Surin's statement also confirms that the quality of teaching must be improved. (WEF. The Global Competitiveness Report 2013 – 2014).

We are all aware that the quality of teaching has a direct impact on the quality of learning. Many studies on the quality of teaching support the fact that quality lessons provided by effective, competent teachers can enhance students' learning experiences and raise their capacity to become highly-skilled learners. Elmore, R.F. (1995) stated that improving the quality of teaching is crucial to teacher reform as this affects the quality of learning. The progress of education reform depends on teachers' abilities, both individually and collectively. Stoll, L. (1999) agreed with this statement and added that it is also linked to the quality of the school; Fullan, M. (2003) also added that it is linked to the effectiveness of school systems as well. (Cited by Gerhard, 2010). Developing instructional quality for excellence has thus become a critical concern. Teachers' professional development should be promoted to enhance the quality of teaching; those with effective teaching skills can deliver quality lessons

to raise the learners' achievements and growth. The concept of teachers' professional development has also been supported by legislation; the constitution of the Kingdom of Thailand B.E. 2540 in section 81 stipulated that the State shall develop the teaching profession. The National Education Act of B.E. 2542 (1999) specified that an organisation for the professions of teachers and educational personnel must be established to perform duties, to set professional standards, to issue and revoke licenses and to oversee and monitor the compliance with professional standards, ethics and professional development. Section 9 (4) of the National Education Act (1999) states that the professional standards of teachers, faculty staff, and educational personnel shall be developed and raised on a continuous basis. As a result of this act, the Teachers and Educational Personnel Council Act of B.E. 2546 (2003) was passed and it stipulated that the Teachers' and Educational Personnel's Council of Thailand must be established as a legal entity under the supervision of the Ministry of Education to oversee and supervise the educational profession and its regulations require all teachers involved in basic education to develop themselves professionally in order to have their teaching licenses renewed. In addition, as published in the Government Gazette volume 123 part 106 D on 12th October 2006, the regulations of the Standards of Qualifications of Educational Institutions for Teaching Operations state in A. (4) that educational institutions regularly promote and develop personnel/teachers as necessary and appropriate, in A. (4.2) that teachers are professionally developed in their teaching fields or perform work continuously and in line with changes and in B. (6.4) that the teachers are professionally developed in their teaching subjects for not less than 20 hours per year. As a result of these regulations, the requirement for teachers' professional development has become a standard indicator set and used for the third round of external quality assessment (2001-2005) by the Office for National Education Standards and Quality Assessment (ONESQA). The standard expectation is that all teachers must be developed professionally for not less than 20 hours a year which is in line with the regulations of the Ministry of Education.

Professional Learning Communities (PLCs)

In many international research studies, Professional Learning Communities (PLCs) are found to be a great model for education reform and many schools around the world have been applying the PLC approach as a basis for change and school improvement for decades. Newmann et al (1998) stated that three core things must be implemented in a highly-interactive and systematic way in order to bring about effective school reform. These three things include: a Professional Learning Community in which teachers and others develop shared understanding and commitment to help all students achieve to a high standard in schools; collaborative work which focuses on employing critical assessment of student work; and suitable teaching practices that help all students to reach high academic achievement. These three factors must support one another to create continuous improvement. (Cited by Michael Fullan, 1998). The Annenberg Institute for School Reform at Brown University (1998) promotes the use of Professional Learning Communities as an approach for effective professional development; the benefits of Professional Learning Communities address four key areas:

- Build productive relationships amongst staff who are expected to collaborate, reflect, and act in order to carry out a school-improvement programme.
- Engage educators at all levels in collective learning.
- Address inequities by providing assistance to teachers working with students who need learning support.
- Promote efforts to improve results.

Little (2001) found that Professional Learning Communities are vital for instructional development and school reform, and Louise et al (2005) stated that real Professional Learning Communities can improve teachers' job performance, teaching motivation and work satisfaction along with promoting shared responsibilities for student learning. (Cited by Narongrit, 2010). Stoll et al (2003) stated that Professional Learning Communities (PLCs) appeared to generate and support sustainable improvements because they build the necessary professional skills and abilities that can keep schools progressing. Stoll, Louise et al (2006) stated that the progress of education reform depends on teachers' individual and shared abilities and this links with a school-wide capacity for promoting student learning and Dufour (2004) evokes

a vision of Professional Learning Communities that are a powerful new way of working together as this intensely affects the effectiveness of schooling. (Cited by Gerhard, 2010). Hord (2004) stated that the use of a Professional Learning Community's model would seem natural as a reform measure for education as it has an inherently collaborative structure and an accompanying primary mission to learn continuously and constantly. Dufour (2007) also stated that the implementation of the Professional Learning Communities approach has been noted to be the most promising strategy for improving and sustaining student achievement. (Roberts: 2010).

Several research papers conclude that a Professional Learning Communities approach is an effective professional development for educators; it promotes a learning environment that emphasises educators' collaboration and commitment to improving student learning and achievement. Collaborative teamwork is found to be an important, powerful and dynamic component of the school improvement process. When the teachers work collaboratively, they have opportunities to share practice and collectively learn new ideas which can help them to improve and develop their teaching skills. The Literacy and Numeracy Secretariat [Capacity Building (2007)] advocated that Professional Learning Communities are catalysts for improving instruction due to the collaboration of principals and teachers in reflecting and learning together, reviewing student work and relevant data, planning for student success and focusing on improving students who are not making sufficient progress. Gerhard (2010) also stated that an effective mechanism for increasing teacher collaboration and professional development is the Professional Learning Community. The concept of collaboration is also supported by the regulations of the Standards of Qualifications of Educational Institutions for Teaching Operations which state in A. (4.3) that educational institutions promote teamwork.

The concept of Professional Learning Communities has also received attention from local Thai researchers and practitioners. Vicharn Panich (2010: Online) studied the research work conducted by Richard DuFour whom he called the 'Father of PLC'. He maintains that the Professional Learning Communities approach is a very good model for teachers in the 21st century as it would change the teachers' role and the school environment. A teacher should move away from a traditional teaching style of

being teacher-centred and giving lectures. The teacher of the 21st century should act as a coach or a learning facilitator for project-based learning, motivate the students, build their inspiration and promote learning by doing. The individual, competitive student learning model should also change to team learning and collaboration. Narongrit Intanam (2010) conducted research into the development of a benchmark for building Professional Learning Communities in schools whose sample population are school administrators and teachers working in schools under the Office of Basic Education Commission, the Ministry of Education. His research findings revealed that schools and educational districts can build Professional Learning Communities in schools through the integration of benchmarking and the blue ocean strategy in order to improve the quality of teacher instruction which is needed for raising the quality of education and to promote strong Professional Learning Communities. The Professional Learning Community's benchmark can also be used as a tool to develop and monitor the ability of individual teachers and the effectiveness of collaboration within teams of teachers.

Management of Schools under the Bangkok Metropolitan Administration

This research conducts the study of Professional Learning Communities of schools under the Bangkok Metropolitan Administration (BMA). There are 438 schools located in 50 school districts. The BMA provides basic education from Kindergarten to Grade 12 to over 300,000 pupils who reside in Bangkok Metropolitan areas. The BMA has set goals to raise the quality of teaching and learning in all BMA schools in order to become leading schools under the "Bangkok World Class Smart School" standards (Retrieved on 29 August 2012.online). The BMA policy, vision and educational strategies have been clearly established to promote the quality of basic education and to enhance abilities and skills of the teachers and students in order for them to become competitive with other nations when Thailand enters the ASEAN community.

Elmore (2004), Fullan (2007) and others have pointed out that there is no way to change classroom practices across an entire system without significant investment and work to improve the skills of teachers and principals as well as the support they receive from the wider system. This is what is meant by capacity building, and it takes

a sustained effort well beyond what occurs in most education reforms. (Cited by Levin, 2007). Since the practice of Professional Learning Communities has been viewed by several research studies as a necessary tool for school reform and raising the standard of teachers, it would be worthwhile to explore management strategies needed to create Professional Learning Communities of schools under the BMA. This research would conduct a survey of the current state and the desired state of Professional Learning Communities of BMA schools; the information received would then be analysed to determine management strategies needed to create Professional Learning Communities within the schools. The concept of creating Professional Learning Communities for schools has not only been studied and explored in response to the need for education reform but it is also aligned with a focus on national education standards on school provision which emphasises a child-centred approach and school-based management. The findings of the research studies on management strategies to create Professional Learning Communities of schools under the BMA are hoped to bring about knowledge and ideas that will become guidelines for the school management of many other schools to create Professional Learning Communities in their schools as it is believed to be an approach that could bring good learning outcomes for students.

1.2 Research Questions

1. What are the current and desired states of Professional Learning Communities of schools under the Bangkok Metropolitan Administration?
2. What are the strengths, weaknesses, opportunities and threats of the school management to create Professional Learning Communities of schools under the Bangkok Metropolitan Administration?
3. What are management strategies to create Professional Learning Communities of schools under the Bangkok Metropolitan Administration?

1.3 Research Objectives

1. To study the current and desired states of Professional Learning Communities of schools under the Bangkok Metropolitan Administration.

2. To analyse the strengths, weaknesses, opportunities and threats to the school management to create Professional Learning Communities of schools under the Bangkok Metropolitan Administration.
3. To develop management strategies that create Professional Learning Communities of schools under the Bangkok Metropolitan Administration.

1.4 Operational Definition of Terms

The following terms are relevant to the proposed research.

BMA Schools: Kindergarten to Grade 12, or parts thereof, schools which are located in Greater Bangkok and are operated by the Bangkok Metropolitan Administration.

Management Strategies of Schools under the BMA: The proactive approach used in planning, implementation and evaluation of school curricula in schools under the BMA; the curricular work includes curriculum design and development, planning instruction and designing learning experiences for students, student assessment and data analysis for improving student achievement and professional development.

Curriculum Design and Development: A process by which lessons and academic content are designed and taught in a school to develop the knowledge, skills and attributes that students are expected to acquire in order to meet the required learning standards. The curriculum is reviewed and developed periodically in order to improve the quality of teaching and learning.

Planning Instruction and Designing Learning Experiences for Students: A process of preparation for teaching and organising learning experiences for students. The lesson plans are developed based on the school curriculum and designed to include learning objectives, expected learning outcomes and learning activities that support students' learning styles and development.

Student Assessment: A process to measure and inform teachers how well the students have learned and developed knowledge and skills taught. The information data from the assessment is to be analysed and used for setting targets for improving curriculum, instruction and student achievement.

Professional Development: Various types of professional learning for school leaders and teachers that would help them to improve their knowledge, skills and abilities required for working effectively and improving student achievement.

Planning: The process of creating annual action plans in advance for projects, schemes of work and activities relating to curriculum design and development, planning instruction and designing learning experiences for students, student assessment and evaluation and professional development.

Implementation: The process of carrying out action plans, projects, schemes of work and activities relating to curriculum design and development, planning instruction and designing learning experiences for students, student assessment and evaluation and professional development.

Evaluating: The process of monitoring and evaluating the progress and success of the implemented plans, schemes of work and activities relating to curriculum design and development, planning instruction and designing learning experiences for students, student assessment and evaluation and professional development.

Professional Learning Community: A school environment where the school leaders and teachers work collaboratively to focus on student learning and improving student achievement through continuous inquiry and shared practice and to collectively learn new ideas that enhance their capacities.

Shared Values, Vision, Mission and Goals: School administrators and teachers recognise the common values which are important to school leaders, teachers

and schools and they take part in creating a vision for the school and use it as a core purpose and direction for making decisions about what needs to be implemented. The shared vision would direct the development of mission and goals to be implemented for the improvement of teaching and student achievement.

Supportive and Shared Leadership: A learning community where school leaders and teachers embrace collegial relationships; the administrators share leadership responsibilities with teachers, give teachers autonomy and support them to make decisions together to take action on what should be implemented to improve teaching and student achievement.

Collective Learning through Inquiries, Reflective Dialogues and Application of Learning: A learning community where school leaders and teachers establish networks and engage themselves in dialogues and reflect about matters relevant to student learning and teaching practices. New ideas and information are collectively learned through reflective discussions including questioning, investigating and seeking solutions for problems relating to teaching and learning and then applied to create new learning conditions leading to the improvement of student achievement.

Collaboration and Shared Practice Focusing on Improving Student Achievement: A learning community where administrators and teachers work collaboratively to improve teaching and student achievement. The shared practice includes ongoing inquiry-based discussions, coaching, mentoring, observing colleagues' lessons and giving feedback of the observation which is applied as a framework to adjust the teaching and learning.

Supportive Conditions: Conditions that are necessary to promote, support and enable Professional Learning Communities to exist. They may include the allocation of budget, time to operate meetings and tasks, teacher autonomy, information technology systems and people's abilities and expertise that are required

to perform effective teaching, learn new ideas and accept feedback and work towards student improvement.

1.5 Theoretical Frameworks

The concept of creating a Professional Learning Community has been studied, analysed, synthesised and applied to develop theoretical frameworks for the development of management strategies to create Professional Learning Communities in schools under the Bangkok Metropolitan Administration.

Three major theoretical frameworks of the research have been developed:

1. Management of Schools under the Bangkok Metropolitan Administration

Various concepts of management process have been studied including:

- POCCC process by Fayol (1916)
- POSDCORB Model by Gulick & Urwick (1936)
- PDCA by Deming (1993)
- The American Association of School Administrations
- Robert F. Campbell
- Koontz and O'Donnell
- Jesse B. Sears
- Russell T. Gregg

The concepts of management process above have been synthesised into three steps including:

1. Planning (P)
2. Implementation (I)
3. Evaluation (E)

The PIE will be applied to manage plans, projects and activities relating to the four areas of curriculum management, including curriculum design and development, planning instruction and designing learning experiences for students, student assessment and evaluation and professional development.

2. Creating Professional Learning Communities

The concept and attributes of Professional Learning Communities have been studied from various literature reviews and several research studies have expanded the concept and attributes of PLCs identified by Hord (1997) and the work of Dufour (2008). The Alberta Education Authority made comparative studies of the attributes of PLCs which have been identified by various researchers and practitioners, and the synthesised list of these attributes has been compared to and synthesised with the PLC attribute studies conducted by local Thai researchers, Narongrit Intanam (2010) and Woralak Chookamnerd and Ekkarin Sungtong (2011). The synthesised attributes of Professional Learning Communities include the following five attributes:

1. Shared vision, mission and goals.
2. Supportive and shared leadership.
3. Collective learning and networking through reflective dialogues and application of learning.
4. Collaboration, shared practice and continuous inquiry focusing on improving student achievement.
5. Supportive conditions.

3. Development of Management Strategies

The concept of management strategies has been studied from the following:

- The Strategic Management Model developed by Wheelen and Hunger (2007).
- TOWS Matrix developed by Koontz and Wehrich (1990).
- Developing priorities of needs for organisation management using PNIModified developed by Nonglak Wirachchai and Suwimol Vongvanich (2542).

The concept has been synthesised to carry out these three steps for developing management strategies:

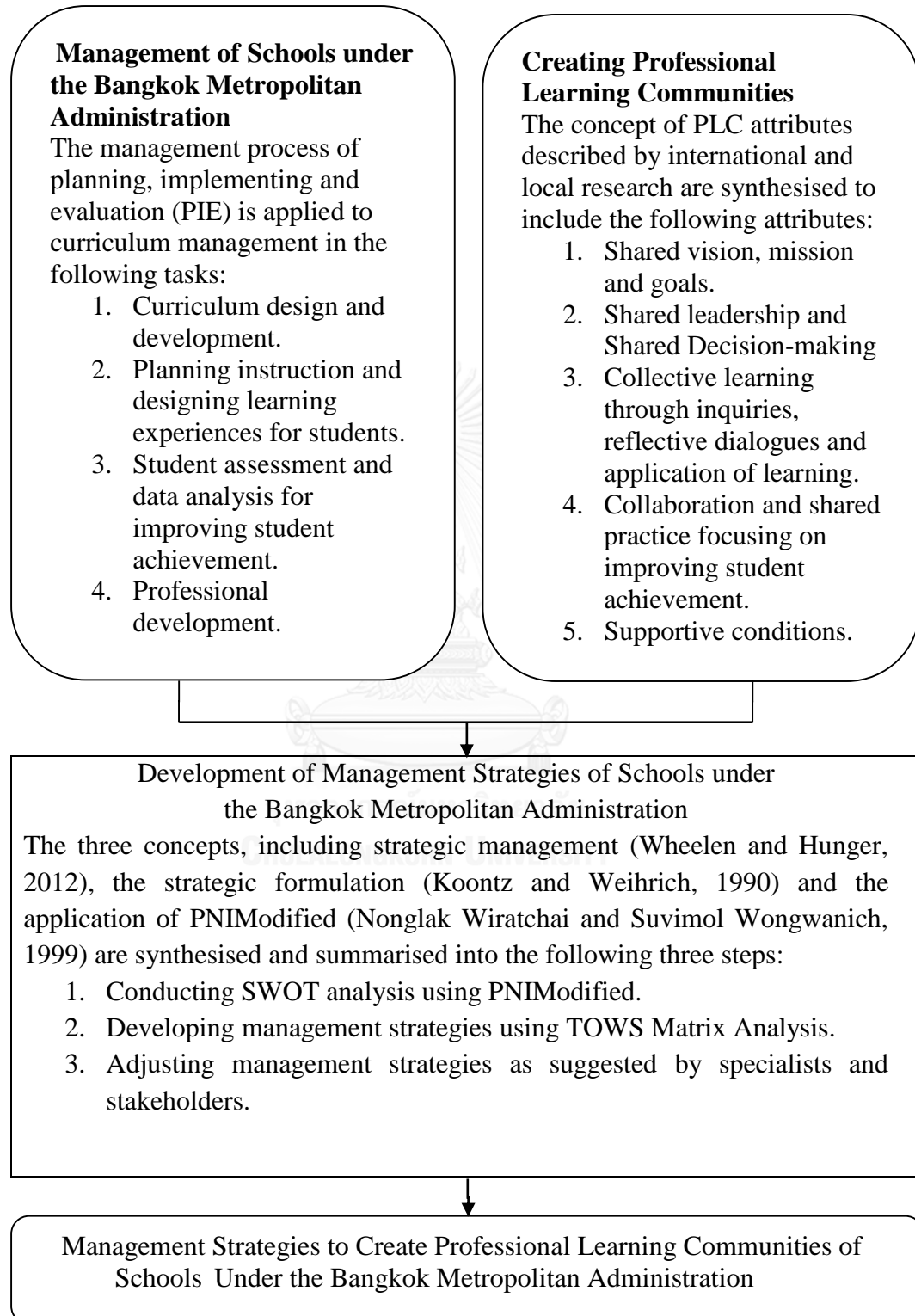
- Conducting SWOT analysis using PNI Modified to study the current state and desired states of PLCs of BMA schools.
- Developing management strategies using TOWS Matrix.

- Adjusting management strategies as suggested by specialists and stakeholders.

The conceptual framework for the research study of management strategies to create Professional Learning Communities of schools under the Bangkok Metropolitan Administration has been illustrated in Figure 2.



Figure 2: Conceptual framework for the research study of management strategies to create Professional Learning Communities of schools under the Bangkok Metropolitan Administration



1.6 Scope of Research Study

1. Research Population

The population of this study consists 438 schools under the Bangkok Metropolitan Administrations and the informants include school administrators and teachers at BMA schools.

2. Research Content

The attributes of Professional Learning Communities are studied, analysed and synthesised through the review of literature. The study of the current state and desired state of the management of schools under the Bangkok Metropolitan Administration to create Professional Learning Communities is conducted through questionnaires; the information acquired from the study is analysed to identify strengths, weaknesses, opportunities and threats (SWOT analysis). The study of the curriculum management of schools at a basic level of education as mandated by the Ministry of Education 2007 is conducted according to the following tasks:

1. Curriculum design and development.
2. Planning instruction and designing learning experiences for students.
3. Student assessment and evaluation.
4. Professional development.

3. Research Timeframe

The research study is to be conducted during the academic year 2014 – 2015.

1.7 Benefits of the Research Study

1. In Terms of Academic Development:

- 1.1 The new body of knowledge consisting of management strategies is developed to create Professional Learning Communities of schools under the Bangkok Metropolitan Administration.
- 1.2 The research findings can be used for the study and development of Professional Learning Communities in further detail.

2. In Terms of the Implementation of Strategies:

- 2.1 The Bangkok Metropolitan Administration can employ the strategies to set or develop educational policies and strategic plans for all schools to create Professional Learning Communities.
- 2.2 School leaders of the schools under the Bangkok Metropolitan Administration can employ the strategies to develop action plans for the development of the quality of teaching for Professional Learning Communities.
- 2.3 Other educational institutions can employ the strategies to create Professional Learning Communities.
- 2.4 Students in the Professional Learning Communities have equal opportunities in terms of getting the support from the team of teachers who have developed a good knowledge of teaching practices.
- 2.5 Universities and educational training centres can develop academic work, a study course or a workshop seminar relating to the development of Professional Learning Communities and the management strategies to develop Professional Learning Communities in schools.

Chapter 2

Review of Literature

Literature reviews and various research studies on the concepts, theories and practices relating to “Management Strategies to Create Professional Learning Communities of Schools under the Bangkok Metropolitan Administration” have been conducted; this chapter has five sections which include the following:

- 2.1 Professional Learning Communities.
- 2.2 Management of Schools under the Bangkok Metropolitan Administration.
- 2.3 School Management.
- 2.4 Strategic Management
- 2.5 Related Literature Studies on Professional Learning Communities
 - 2.5.1 Thai Research Studies
 - 2.5.2 Overseas Research Studies

2.1 Professional Learning Communities

2.1.1 Concept of Professional Learning Communities

The concept of Professional Learning Communities seems to appear as attempts for education reform and school improvement in response to the poor educational system of the US in 1983. The publication *A Nation at Risk* which was conducted by the National Commission on Excellence in Education in April 1983 reported on the shortcomings of public schools; poor mathematics and science instruction, low expectations for students, poor curriculum and poor teacher training were identified as factors contributing to the failure of the US public school system and it urged educational leaders to take immediate actions to restructure and improve the public school system. (Roberts, Mindy. 2010; Gerhard, James, H. 2010).

Rosenholtz (1989) states that the quality of teaching increases when teachers' continuous learning and teaching practice is supported by professional networks, collaboration and growth. Agreeing with Rosenholtz's findings, McLaughlin and Talbert (1993) state that teachers can share knowledge and experiences through collaborative questioning. Darling-Hammond (1996) also refers to teachers' autonomy

in making decisions together on curriculum reform and supportive conditions for teachers' cooperative work of instructional planning, classroom observation and giving feedback. These characteristics are aligned with the concept of a Professional Learning Community.

2.1.2 Evolvement of the Professional Learning Communities

2.1.2.1 Learning Organisations

Educators then made several attempts over subsequent decades to explore various programmes to implement change that could impact the improvement of student performance. Shirley Hord, an American educator, was involved in the school improvement process and had the opportunity to work in an environment where staff collaboration was encouraged in order to make a successful change. She noted that this environment was aligned with Peter Senge's learning organisation arrangement. Hord also conducted research studies at the Southwest Educational Development Laboratory (SEDL) on improvements to a school developing a Professional Learning Community model and she found that the work conditions of this school appeared to be aligned to Senge's vision of the learning organisation. Peter Senge (1990) describes the learning organizations as, "organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together."

Senge views the learning organisations as a tool to create change and improvement; however, he argues that although people may have the ability to learn, the structures of the organisations may not promote their people's thinking and commitment: "While all people have the capacity to learn, the structures in which they have to function are often not conducive to reflection and engagement...Organisations that are continually expanding their capacity to create their future require a fundamental shift of mind among their members." Senge explains that the organisations need to know how to motivate people to give commitment and to develop their capacities to learn at all levels. Peter Senge identifies five principles needed for the organisations to

become learning organisations including systems thinking, personal mastery, mental models, building shared vision and team learning.

Systems thinking, the cornerstone of a learning organisation, refers to people's ability to think critically, to analyse the relationships between parts in order to understand the whole and the interconnection of different parts so they can make better decisions when looking for long-term solutions for improvement. When people focus only on cause and effect to solve problems, it can only lead to short-term solutions which can result in negative consequences in the long-term.

Personal mastery is a process for people who recognise their own weaknesses and areas for growth and continuously clarify, develop their personal vision and learn. They are aware that their vision may be different from reality; yet they can manage to change the constraints in reality and turn them into the vision. In addition, they are committed to truth which is the ability to analyse situations based on facts regardless of their feelings.

Mental models are beliefs, ideas or images that influence and guide people's behaviour and thoughts. People in the changing organisation should develop mental models which enable them to be in control and maintain balance when facing the influence of dominant politics in the organisation.

Building shared vision is crucial to organisational change and leaders should involve the people in the organisation to develop a vision together. The shared vision promotes the people's creativity and commitment and guides them to accomplish their goals in order for them to reach their targets.

Team learning is a process whereby the teams engage in dialogues, think and discover ideas or knowledge together; the process contributes to the development of people's capacities and enables them to create good results for the organisation. When teams learn together, not only can there be good results for the organization, but members will grow more rapidly than could have occurred otherwise (Cited by Smith, M. K. 2001.online).

The disciplines of the learning organisation are found to align with the attributes of a Professional Learning Community. Systems thinking is a necessary attribute for teachers to develop. When working together as a team and looking for long-term solutions to improve student achievement, teachers should develop systems thinking to

be able to analyse, discuss, collectively learn about factors contributing to the successful change and improvement and to make decisions on necessary plans of action and supportive conditions required to implement change.

The personal mastery is important to learning and growth. Peer observation and giving constructive feedback as a guidepost to improve teaching and learning is a common practice in schools developing a Professional Learning Community. Teachers who observe their colleagues' teaching will give them feedback based on truth and avoid bias; and the teachers who are observed will become be aware of their own strengths and areas for growth and be willing to accept the feedback, and consequently, to learn and to improve themselves. They must both develop personal mastery and be aware of what changes they want to take place.

The mental models would become important and help the team avoid being influenced by internal politics. When teachers are required to work collaboratively in a team, all team members will need to make inquiries about students' learning problems, discuss, share ideas and reflect on their learning to create change and improvement. Internal politics may be interfering with the process of change. However, the mental models can help the people to remain in control and be move in directions that impact learning and growth.

Shared vision is also important to the school developing a Professional Learning Community. To create change, school leaders and teachers should develop a shared vision so that all members have the same understanding of what they want the school to become; the shared vision will guide all members to create a mission and goals for the school they want to construct.

Team learning is a similar concept to collective learning. In a school developing a Professional Learning Community, teachers inquire about problems, discuss ideas and seek solutions to improve teaching and learning. Their abilities are enhanced when they acquire new knowledge together; collective learning helps develop the team professionally and contributes to the team's strengths.

2.1.2.2 Communities of Practice

The communities of practice (Lave, J. and Etienne Wenger: 2007; Online) receive attention from various researchers and practitioners as they refer to working

with groups. Communities of practice are groups of people who collectively learn to do something of their common interest. Wenger (c 2007) identifies the following three important components of a community of practice: 1) A shared domain of interests - members have common interests and are committed to do activities together on a regular basis. 2) The community- members develop relationships among themselves, discuss, exchange ideas, learn from each other and participate in activities together in the community. 3) The practice - members share their practice. The community of practice is developed when the members have common interests and want to pursue their interests together. (Cited by Smith, Mark K.: 2003, 2009).

The characteristics of the communities of practice are found to be aligned with the Professional Learning Community when teachers share their common interests in improving student learning, inquire about students' learning problems, engage in reflective discussion and collectively learn about the possible solutions and share their teaching practice.

2.1.2.3 Continuing Professional Development (CPD)

The teachers' continuing professional development has been supported by legislation: the regulations of the Teachers and Educational Personnel Council Act B.E. 2546 (2003) require all teachers involved in basic education to continuously develop themselves professionally in order to have their teaching licenses renewed. In addition, several educational accreditation organisations around the world, such as the Council of International Schools (CIS), the Western Association of Schools and Colleges (WASC), the CfBT Education Trust and the Office for National Education Standards and Quality Assessment (ONESQA) who define standards and support the ongoing improvement of education indicate that ongoing professional development must be provided to academic staff, particularly in the areas of curriculum, instruction and assessment in order to enhance the quality of student learning. The Institute for Learning defines continuing professional development as educators' learning experiences and the activities of maintaining, improving and enhancing knowledge and skills in the specialised subject of teaching; and the knowledge and skills will create positive effects on both the teaching practice and the students' learning. (The Guidelines for Your Professional Development. 2009: Online). According to the

thesaurus of the Educational Resources Information Center (ERIC) database, professional development refers to "activities to enhance professional career growth" which consist of various types of professional development such as personal development, ongoing study, and in-service development including peer coaching and mentoring, etc. Fullan (1991) gives the definition as, "the sum total of formal and informal learning experiences throughout one's career from pre-service teacher education to retirement." (Cited in North Central Regional Educational: Online).

Aiming to help students to become competent learners, problem-solvers and creators, Caena (2011) stated that the teachers' development should place an emphasis on the learning and teaching of higher-order critical thinking skills that would assist students to develop those skills and to become competent and achieve at a high level in order to live successfully in the 21st century. The key components of professional development defined by the U.S. Department of Education's Guidance for the Reading First Program and the National Staff Development Council's Standards for Staff Development are found to be aligned with the main concept of professional learning which places an emphasis on continuous improvement, the sufficient allocation of time and budget for staff to work and learn together to achieve the school's mission and goals and the ongoing support and guidance during classroom practice, etc. Various research studies (Cohen and Hill, 2000; Darling-Hammond & Richardson, 2009; Birman et al., 2000; Borko, 2004; Ingvarson, Meiers & Beavis, 2005; Snow-Renner & Lauer, 2005; Teddlie & Reynolds, 2000; Darling-Hammond & Richardson, 2009; Eaton & Carbone, 2008; Garet et al., 2001) explain that the characteristics of effective teacher learning and development which are found to be relevant and aligned with the concept of a Professional Learning Community are as follows: 1.) Active Learning: "the continuing professional development should allow teachers to participate actively in discussions, to share practices and to implement new ideas in their teaching practices." This feature is aligned with the collaboration, sharing good practice and applying their learning. 2.) Coherence: "the continuing professional development for teachers should be work related and connected to school curriculum, instruction, assessment and the analysis of students' work and performances." Some of the attributes of the Professional Learning Community focus

on the continuous inquiry, sharing practice, peer observation, giving feedback and collective learning; these activities will need to be work-related and expect good results and levels of improvement. 3.) Duration: "The continuing professional development should not be in the form of attending one-time lectures or workshops but rather extend over time. It needs to provide time to teachers to practise their learning, to be guided and coached to implement their knowledge and skills and to have reflective discussions." Therefore, continuing professional development should be ongoing and it is aligned with the concept of the Professional Learning Community in terms of making continuous inquiry and improvement. 4.) Collective Participation: "The continuing professional development should focus on teachers' collaboration. When the team works on tasks and matters that link to students' learning and problems, the team's development would allow reflective inquiries and shared best practices which could become beneficial to the group on developing problem-solving skills and supporting their responsibility and leadership." This attribute is directly aligned with the attributes of the Professional Learning Community.

Danielson, C. (2007: p.99-101) describes participation in a Professional Learning Community as a part of teacher's responsibilities. She explains that the teacher's role and duties are not only confined to the classroom but are involved with various activities or programmes, such as helping the students to practise a school play, meeting with parents on curriculum nights, meeting with colleagues to prepare school events and assemblies, etc. Teachers come to understand that their colleagues' expertise is a valuable resource that they can transfer to their classrooms to enrich teaching and learning activities. Therefore, developing a good relationship with colleagues is considered to be important and beneficial to teachers. Danielson (2007: p.4) clarifies further that a teacher's role and duties should include the four elements of participating in a professional community which include:

- 1) Forming a good relationship with colleagues.
- 2) Practising a culture of professional inquiry.
- 3) Providing service to the school.
- 4) Being involved with school and district projects.

Forming a good relationship with colleagues has become a crucial element; experienced teachers' expertise shared to new teachers can enhance their teaching quality and have a positive impact on student learning. Forming a good relationship among colleagues will lead to sharing practice, coaching, mentoring and professional learning.

Practising a culture of professional inquiry would create professional dialogues among teachers and would enable them to learn among themselves. Teachers who demonstrate sincere interest in improving student learning will keep asking questions about their students' learning and their problems and make an effort to find solutions that are beneficial to the development of students' growth and improvement; the expertise and the knowledge shared with them are valuable resources in the school and community, the continuous inquiry promotes active learning in the workplace. Danielson (2007: p.101) states, "If educators are interested in improving outcomes for students, they must not ignore the expertise within their walls. In addition, to the extent that teaching is a profession, teachers (like other professionals) are obliged to continue their learning for their entire professional lives."

Providing service to the school will certainly involve teachers' participation in school community events. Teachers who are actively engaged with various school functions will have the opportunity to develop leadership. Teachers' leadership and autonomy should be supported and promoted and the teachers should be empowered to take leading roles and to make decisions about school tasks and projects that could have an impact on student learning.

Being involved in school and district projects will enable teachers to increase their professional knowledge and experiences, make connections or form professional relationships with colleagues and may result in the development of strong, effective teams that could make decisions on many school programmes that are beneficial to student learning. Danielson has developed a rubric demonstrating the level of teachers' performance in terms of participating in a professional community which is displayed in the Table 2 below.

Table 2: Level of Participation in a Professional Community

Element	Level of Performance			
	Unsatisfactory	Basic	Proficient	Distinguished
Relationships with colleagues	The teacher's relationships with colleagues are negative or self-serving.	The teacher maintains cordial relationships with colleagues to fulfil duties that the school or district requires.	Relationships with colleagues are characterised by mutual support and cooperation.	Relationships with colleagues are characterised by mutual support and cooperation. The teacher takes initiative in assuming leadership among the faculty.
Involvement in a culture of professional inquiry	The teacher avoids participation in a culture of inquiry, resisting opportunities to become involved.	The teacher becomes involved in the school's culture of inquiry when invited to do so.	The teacher actively participates in a culture of professional inquiry.	The teacher takes a leadership role in promoting a culture of professional inquiry.
Service to the school	The teacher avoids becoming involved in school events.	The teacher participates in school events when specifically asked.	The teacher volunteers to participate in school events, making a substantial contribution.	The teacher volunteers to participate in school events, making a substantial contribution and assumes a leadership role in at least one aspect of school life.
Participation in school and district projects	The teacher avoids becoming involved in school and district projects.	The teacher participates in school and district projects when specifically asked.	The teacher volunteers to participate in school and district projects, making a substantial contribution.	The teacher volunteers to participate in school and district projects, making a substantial contribution and assumes a leadership role in a major school or district project.

Danielson (2007: p.103) DOMAIN 4: Professional Responsibilities
Component 4d: Participation in a Professional Community

2.1.3 Definition of Professional Learning Community

The definition of the professional learning community is similarly defined by various researchers and practitioners based on the school context.

Astuto and colleagues (1993) define the Professional Learning Community as a collaborative process of continuous inquiry, shared learning and the application of learning done by teachers and administrators aiming to increase their abilities and improve student learning. (Cited by Hord, 1997, p.6).

Hord (1994) defines a Professional Learning Community as a place where administrators and teachers develop collegial relationships, share a vision, make essential questions and make decisions together.

Mitchell & Sackney (2000) and Toole and Lewis (2002) refer to Professional Learning Communities as a group of people who continuously, collaboratively make vital questions, share practice, make reflections and learn in all aspects in order to promote progress.

Kilpatrick et al (2003) define a Professional Learning Community as suppositions, operations, trusts and opinions that support continuous learning.

Huffmand and Jacobson (2003) define a Professional Learning Community as a group of people who share responsibilities for the school, make inquiries and collectively learn about teaching and learning, collaboratively work on planning, implement activities and conduct assessment to improve student achievement and the school. (Cited by Roberts, Mindy. 2010).

Hord (2004) refers to an environment in which people make an ongoing search for knowledge and then share and apply the knowledge to collaboratively enhance their professional capacities that are utmost beneficial to student learning.

Richard-Rebecca DuFour (2004) define a Professional Learning Community as a group of teachers and a school management team in a school that make an ongoing search for knowledge, share the knowledge and implement the learned knowledge.

Bolster and Henley (2005) define a Professional Learning Community as small groups of 3-5 teachers continuously and collaboratively working to acquire knowledge, to make plans and to find solutions. (Cited by Roberts, Mindy. 2010).

Bolam et al (2005) define a Professional Learning Community as groups of people who drive themselves with a motivated vision of learning, work together, make questions and analyse the information to create knowledge, make attempts to improve

student learning and promote student growth and their professional learning in the school. (Cited by the Literacy and Numeracy Secretariat: Capacity Building Series, 2007).

Dufour et al (2006, 2010) define a Professional Learning Community as educators' continuous process of collaborative, ongoing work in questioning and conducting action research in order to help students to achieve improving achievement results.

Michael Fullan (2006) defines a Professional Learning Community as a learning community in which academic staff, including teachers and administrators in a school, work in collaboration to improve the learning environment and student achievement.

Stoll and Seashore Louis (2007) define a Professional Learning Community as a school community and collaborative culture where teachers work actively together within a given supportive structure provided by school leaders in order to reach a common goal of enabling all students to achieve successful attainment.

Brookhart's (2009) definition of Professional Learning Community is a team of small groups of teachers who conduct regular meetings and work together on the common goals of raising each student's achievement. (Cited by Mindy Roberts.2010).

Panich, Wijarn (2011) defines a Professional Learning Community as, "A group of teachers in a school or an educational district who join in to exchange ideas and share the teaching and learning practice to enable their students to acquire life skills of the 21st century. School administrators, school board, educational district administrators and national educational administrators have joined to organise supportive systems to establish a continuous exchange and sharing of ideas for learning to continuously develop students' learning. It is an endless cycle of a continuous quality improvement (CQI) or Routine to Research (R2R)."

The How-To Guide for Educators (Online: Retrieved on 15 February 2013) describes a Professional Learning Community as a connection between professionalism and community; the professionalism emphasises the knowledge and expertise in specific fields and the community is described as a group consisting of caring, responsible and supportive teachers, colleagues and school personnel who work and learn together on the common goal of receiving quality education.

The definitions of Professional Learning Communities described in several studies appear to have eight features in common including a group of people, values and vision, shared decision-making, inquiry, shared learning with reflections, collaborative actions, professional learning and students' outcome as shown in the table 3 below.

Table 3: A summary of definitions of Professional Learning Communities

	Group of people, educators, colleagues and stakeholders	Vision, values, purpose, assumptions, beliefs, and attitudes	Shared decision-making	Seek, inquire, investigate, ask questions about teaching	Shared learning, ideas, reflections	Collaborative action on learning and problem-solving	Professional, continuous learning, learning oriented	Focus on student outcomes, promote student growth
Astuto et al (1993)	✓			✓	✓	✓	✓	✓
Hord (1994)	✓	✓	✓	✓				
Mitchell & Sackney, Toole and Lewis (2002)	✓			✓	✓	✓	✓	✓
Kilpatrick et al (2003)		✓		✓	✓	✓	✓	
Huffmand and Jacobson (2003)	✓			✓	✓	✓		✓
Hord (2004)				✓	✓	✓	✓	✓
Bolster and Henley (2005)	✓					✓		✓
Bolam et al(2005)	✓	✓		✓	✓	✓	✓	✓
Dufour et al (2006, 2010)	✓			✓		✓		✓
Michael Fullan (2006)	✓					✓		✓
Stoll and Seashore Louis (2007)	✓	✓				✓		✓
Brookharts (2009)	✓	✓				✓		✓
Panich, Wijarn (2011)	✓				✓			✓
The How-To Guide for Educators	✓	✓				✓		✓

In summary, the Professional Learning Community is defined as a school community in which teachers and school leaders collaboratively work and learn through

inquiry and reflective dialogues about teaching and learning practices and apply their learning to improve student achievement.

2.1.4 Attributes of Professional Learning Communities

The concept and characteristics of a Professional Learning Community have been explored by various researchers and practitioners and they have identified necessary common attributes which are needed to create Professional Learning Communities in schools. The Alberta Education Authority (2006) explored and reviewed a bank of literature on Professional Learning Communities. It stated that much of the literature focused on the work of Hord (1997) and the work of Dufour (2008). Others who have worked with Professional Learning Communities, such as Kruse, Seashore Louis and Bryk (1994), Berlinger-Gustafson (2004) and Patterson and Rolheiser (2004), used the foundational principles and then expanded and applied them through their own research and practice. The Alberta Education Authority concludes that there are six main characteristics of Professional Learning Communities including: (1) Supportive and shared leadership capacities. (2) Shared mission, focus and goals. (3) Collective learning and application of learning. (4) Continuous inquiry and practice. (5) Focus on improvement. (6) Supportive conditions and environments. The Alberta Education Authority made a comparative examination of the attributes of Professional Learning Communities described in several research studies as shown in the Table 4 below.

Table 4: Attributes of Professional Learning Communities

Attributes of A Professional Learning Community	Hord (1997)	Dufour and Eaker (1998)	Senge (2000)	Kruse, Seashore Louis and Bryk	Berlinger-Gustafson (2004)	Patterson and Rolheiser (2004)	Annenberg Institute (2003)
Supportive and shared leadership	✓		✓	✓	✓	✓	✓
Shared mission, focus and goals	✓	✓	✓	✓	✓	✓	✓
Collective learning and application of learning	✓	✓	✓	✓	✓	✓	✓
Continuous inquiry and practice	✓		✓	✓	✓	✓	
Focus on improvement	✓	✓	✓				✓
Supportive conditions and environments	✓		✓	✓	✓	✓	✓

The comparative attributes of Professional Learning Communities made by the Alberta Education Authority are then compared to the Professional Learning Community attributes studied by Thai researchers Narongrit (2010) and Woralak and Ekarin (2011) and are synthesised to include the following five attributes:

1. Shared vision, mission and goals.
2. Shared leadership.
3. Collective learning through continuous inquiry and reflective dialogues and application of learning.
4. Collaboration and shared practice focusing on improving student achievement.
5. Supportive conditions.

Table 5: Synthesised Attributes of Professional Learning Communities

Alberta Education Authority	Intinam, Narongrit (2010)	Chookamnerd, Woraluk. and Ekarin Sangthong (2011)	Synthesised concept
Shared mission, focus and goals	Shared norms and values	Shared vision	Shared vision, mission and goals
Supportive and shared leadership capacity		Shared leadership	Shared leadership
Continuous inquiry and practice	Collaboration/De-privatised practice	Collaborative teamwork	Collaboration and shared practice focusing on improving student achievement
Focus on improvement	Reflective dialogue/ Focus on student learning/Results orientation		
Collective learning and application of learning	Academic skills and the learning mechanism	Professional learning and development	Collective learning through inquiry and reflective dialogues and application of learning
	Membership and networking	Caring community	
Supportive conditions and environments	Supportive conditions and structure	Supportive structure	Supportive conditions

2.1.4.1 Definitions of the Attributes of Professional Learning Communities

1. Shared values, vision, mission and goals

The first attribute refers to beliefs and values of what is important to school administrators, teachers and schools that needs to be implemented. The shared vision would direct the development of mission and goals to be implemented for the

improvement of teaching and student achievement. Although there are various definitions of vision, all of them refer to a mental picture, a direction towards the future goals of the organisation. The vision addresses what the organisation wishes to become or to achieve.

Nanus (1992) defines vision as "a direction that the organisation wants to move towards and a guideline for the organisation to work in order to achieve its goals." Seeley (1992) describes vision as "a mental picture of a set goal for the future which guide people to act towards it." Manasse (1986) describes vision as "a force or a power that makes the work of the organisation purposeful and important." Pejza (1985) describes the vision of educational leaders as "a strong desire for school improvement." However, a shared vision is viewed as a more powerful tool to drive the organisation towards future goals; a shared vision is described by Sergiovanni (1990) as a "bonding" of a "leader and followers with a shared set of values and commitment that bond them together in a common cause in order to meet a common goal." Chrispeels (1990) explains that school staff are committed to change for school improvement if they have a shared vision. Nanus (1992) states that a vision must be broadly shared and accepted by others or otherwise it is only a dream. Westley & Mintzberg (1989) state that, "Vision comes alive only when it is shared." (Cited by Sylvia Méndez-Morse: Online). Wohlstetter, Priscilla and Susan Albers Mohrman (1993: Online) explain that developing a shared vision of the organisation links people together and provides goals and criteria for change activities and ongoing decisions.

School districts and the schools within them should involve stakeholders at all levels in forming the vision. Developing a shared vision can create a sense of ownership and mutual responsibilities among the team members; it is powerful driving force that enables the team to reach the goal. Therefore, developing a shared vision refers to the common goals or values that school leaders and teachers have collectively developed which must then be used as guidelines to work towards in order to achieve expected results.

1. **Supportive and shared leadership:**

Carmichael (1982) states that when principals see themselves as people who can deal with all matters, they may not acknowledge the capabilities of their staff nor involve them in decision making; it may also be difficult for the staff to contribute ideas about the school improvement. The principals then miss the opportunity to learn from others.

Prestine (1993) also identifies three elements needed for a school to restructure: administrators must share leadership, be able to assist staff with their work and encourage staff to participate without their influence. Sergiovanni (1994) explains that leadership and authority can be displayed through shared ideas. Snyder, Acker-Hocevar and Snyder (1996) state that school leaders must believe in the ability of teachers to meet their students' needs. Leithwood et al (1997) supports the value of collegial relationships and advocates that administrators share leadership with teachers and work with them as peers. Bolam (2005) states that the Professional Learning Community would not exist if the leadership is not supportive and shared at all levels. (Cited by Hord, 1997, Gerhard, 2010). Therefore, the principals' role should change. Agreeing with Carmichael, Kleine-Kracht (1993) states that administrators and teachers are all learners and a hierarchical relationship must be replaced with collegial relationships; everyone must ask questions, contribute ideas and learn to solve problems together in order to improve the school and to develop themselves professionally. (Cited in Professional Learning Communities. Professional Development, Public Schools of North Carolina, State Board of Education, Department of Public Instruction: Online). Therefore, supportive and shared leadership is defined as a collegial relationship developed between administrators and teachers; teachers are given autonomy and supported so that they can exchange ideas and to be involved in decision-making about school programmes and activities that need to be implemented to improve the school's effectiveness.

2. **Collective learning through continuous inquiry, reflective dialogues and the application of learning**

Garavan, Thomas and Ronan Carbery (2012: Online) define collective learning as a complex conceptualised process that is productive and advanced and which creates

knowledge. Such knowledge is implemented to define structures, rules, routines, norms, discourse, and strategies that give direction for the future of the organisation. Learning or knowledge that people acquire emerge during the interactive discussions when they are sharing the information or expertise. The knowledge can be applied and further developed. Costa (Online) explains that wise people continuously learn. They are energised by searching for lifelong learning, they regularly look for new and better means. She states that, "People with this habit of mind are always striving for improvement, growing, learning, modifying and improving themselves. They seize problems, situations, tensions, conflicts, and circumstances as valuable opportunities to learn." She also explains that an inquirer will try to understand and change a problematic situation. "Inquiry results in a learning outcome when it yields both new insight and action steps and, to a degree, a commitment to implement that action." It is stated in the PLC Washington (2011: Online) that reflective dialogue is one of the most powerful tools to improve and strengthen teaching practice. Teachers need to take time to reflect deeply on their teaching practice. When teachers participate in reflective dialogues on their teaching practice, they will find and learn new information that they have probably not thought about. The collective learning through continuous inquiry and reflective dialogues and application of learning then refer to a learning community where administrators and teachers engage themselves in ongoing inquisitive dialogues and reflect on matters relevant to student learning and teaching practices. They collectively learn new ideas and information from sharing and discussions. The new ideas are then applied to solve relating problems and/or to create new learning conditions leading to the improvement of student achievement.

3. Collaboration and shared practice focusing on improving student achievement

Idol et al (1994) explain that collaboration can be defined as a process for groups of people whose various types of expertise are shared when they work together in order to find solutions for the problems over a period of time. (Cited by Mitchell, D. 2010: Online). Powell, William. (Online) simply states that "collaboration takes place when members of an inclusive learning community work together as equals to assist students

to succeed in the classroom. This may be in the form of lesson planning with the special needs child in mind, or co-teaching a group or class."

Sharing classroom practice is a crucial element of being a Professional Learning Community school. Louis & Kruse (1995) state that the observation of a teacher's behaviour made by his/her colleagues is a normal practice in a Professional Learning Community. The observation made by peers is not seen as an evaluation but, rather, it is conducted with the intention of giving constructive feedback with the aim helping each other. Teachers visit each other's classrooms, make observations and then discuss the feedback with each other. The purpose of the observation is to improve the teaching practice. The practice also requires mutual respect and trust. "True Professional Learning Community requires openness – opened classroom doors, open lesson plan books, and open conversation. Review of a teacher's behaviour by colleagues is the norm in the Professional Learning Community." (Cited by Hord, P.23: 2007). The observation is also made through the process of coaching and mentoring. Johnson, B. (2013: Online) defines instructional coaching as a strategy or technique that that school leaders use to assist teachers by questioning them to enable them to identify problems and come up with their own solutions. Teachers will be asked to reflect on and analyse the identified issues in order to make decisions about their own actions that need to be implemented.

Parsloe, E. (2008: Online) defines mentoring as a technique that helps people to maximise their capacities, to improve their skills, knowledge and performance, to make progress and to achieve their goals. Mentoring is a great tool for teachers' empowerment and professional and personal development. Mentors usually share their experiences and expertise in order to guide mentees to find solutions. The mentors will not only guide, give a support and encouragement to mentees so that they can make progress but they will also help them to build up their confidence and self-esteem. It is a good process of building partnerships and developing trust and respect among themselves. In summary, the fourth attribute refers to a learning community where administrators or school leaders and teachers work collaboratively and share practice to improve teaching and student achievement. The shared practice includes ongoing inquiry-based

discussions, coaching, mentoring, observing colleagues' lessons and giving constructive feedback of the observation which is applied as a framework to adjust teaching and learning.

4. **Supportive conditions:**

Boyd (1992) and Louis & Kruse (1995) state that supportive conditions refer to two kinds of conditions which are needed to support the learning communities in order for the school to operate effectively; these include the physical or structural conditions and the abilities of people involved. (Cited by Hord, 2007). Louis & Kruse identify various physical conditions which are required to support the learning communities including the allocation of budget, time to conduct meetings and perform tasks and projects, teachers' autonomy in making decision, the communication structure, collegial relationships and information technology systems, etc. Boyd's physical conditions are similar to those identified by Louis & Kruse; he refers to schedules, resources, policies, teachers' autonomy and empowerment which are necessary in order for teachers to work together.

As for people's capacities, both Boyd and Louis & Kruse refer to the importance of people's positive attitudes towards the school they are working at, the students and the process of change. Also important are their willingness and openness to accept feedback and to improve themselves. The capacities also include their cognitive abilities, appropriate teaching skills, knowledge and interest in delivering lessons that can improve student learning. Therefore, the fifth attribute refers to conditions that are necessary to promote and support Professional Learning Communities to take place. They may include structural arrangements that are required to facilitate and promote the development of Professional Learning Communities. For instance, designated time for meeting and discussions, well-developed communication systems, clearly-defined teaching roles and responsibilities, resources, teachers' autonomy, working relationships and technological systems, etc. The people's capacities and expertise may include effective teaching and observation skills, a willingness to give and accept feedback and work towards improvement, etc.

2.2 Management of Schools under the Bangkok Metropolitan Administration (BMA)

The BMA was established in accordance with the Bangkok Metropolitan Administration Act of 1985; it is a public organisation responsible for the administration of the city of Bangkok and provides services for the well-being of Bangkok residents. The BMA is divided into 16 departments, each overseeing different aspects of the administration's responsibilities. Most of these responsibilities concern the city's infrastructure, and include city planning, building control, transportation, drainage, waste management and city beautification, as well as education, medical and rescue services.

The organisation chart of the BMA is displayed on the following page.

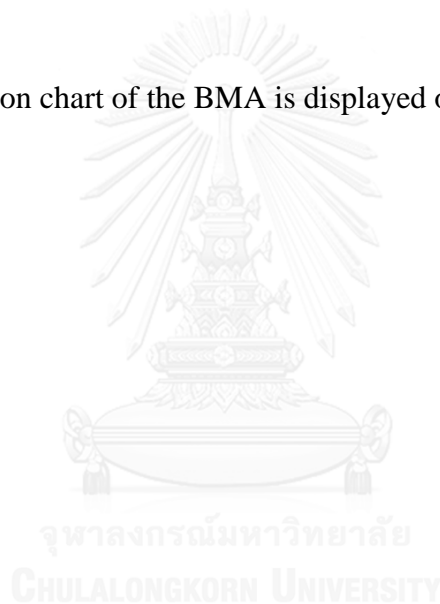
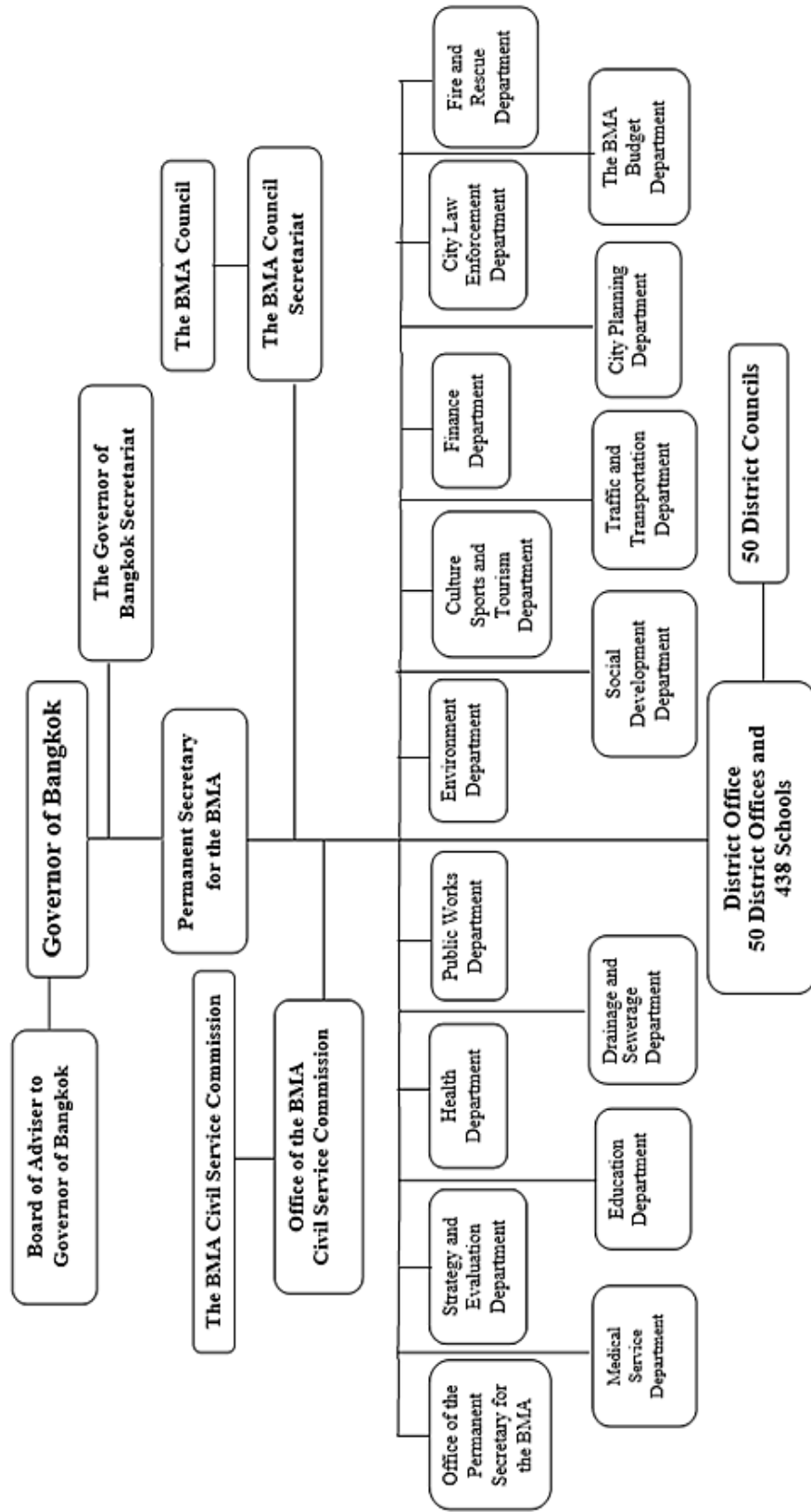


Figure 3: Organisation Chart of the Bangkok Metropolitan Administration

ORGANIZATION CHART OF THE BANGKOK METROPOLITAN ADMINISTRATION



The Department of Education is a department under the Bangkok Metropolitan Administration; its role and duty is to provide basic education to children and teens who reside in Bangkok Metropolitan areas and go to schools under the Bangkok Metropolitan Administration. Its authority and responsibility is to develop educational policies, goals and plans to ensure quality education provision, to promote professional teaching standards and to use information and communication technology in order to become the centre of an educational and technological network. The Department of Education complies with the National Education Act of B.E.2542 with the amendment in B.E.2545 (second edition). It promotes quality education through the learning of the Thai national curriculum at a basic education level. Its goal is to raise student achievement in relation to international academic results, to enable the students to learn and confidently adjust themselves in our constantly-changing world and to enter the ASEAN community with pride. The Department of Education strongly supports all stakeholders' involvement in promoting effective educational provision, creating direct learning experiences for Thai children and giving them the opportunity to have hands-on learning experiences.

2.2.1 Department of Education, Bangkok Metropolitan Administration

The Department of Education consists of seven divisions, each one with its own specific areas of responsibility.

The Personnel Division is responsible for staffing, recruitment, the appointment of suitably-qualified teachers and employees, the transfer, relocation and re-entering of staff to government service and the management of work promotions, salary scales, work improvement and manpower planning. This division also deals with defining frameworks for the promotion of teachers and educational supervisors, performance and academic work evaluation, disciplinary actions, preparing budgets of the Bangkok Metropolitan Administration and budgeting government subsidies, handling salary and wage accounts and organising teaching examinations.

The Secretarial Division is responsible for performing general administrative duties for the Department of Education including secretarial tasks, the management of welfare and benefits for staff and employees, preparing legal documents and contracts and dealing with student rights issues and public relations. It also manages the students'

right centre, the centre for complaints and grievances, the information centre, the central asset management of special activities office, construction management, along with the operation of tasks that are not assigned to any specific departments.

The Finance Division is responsible for the operation of all financial work, including the monitoring of expenses of government subsidies, the Bangkok Metropolitan Administration budget, the school budget, the Department of Education budget and the budgets and the operation of pension work for teachers, officers and employees of the Department of Education. This division also controls requests for purchases and expenses, drafts the proposal for the annual budget, coordinates government subsidies, the Controller General's Department and any relevant government agencies, and produces various types of teaching and learning materials for schools under the Bangkok Metropolitan Administration.

The Education Supervisory Unit conducts planning and development to promote quality management in schools, quality teaching and learning activities in kindergartens, primary schools and secondary schools and performs tasks in response to the educational policies of the Bangkok Metropolitan Administration.

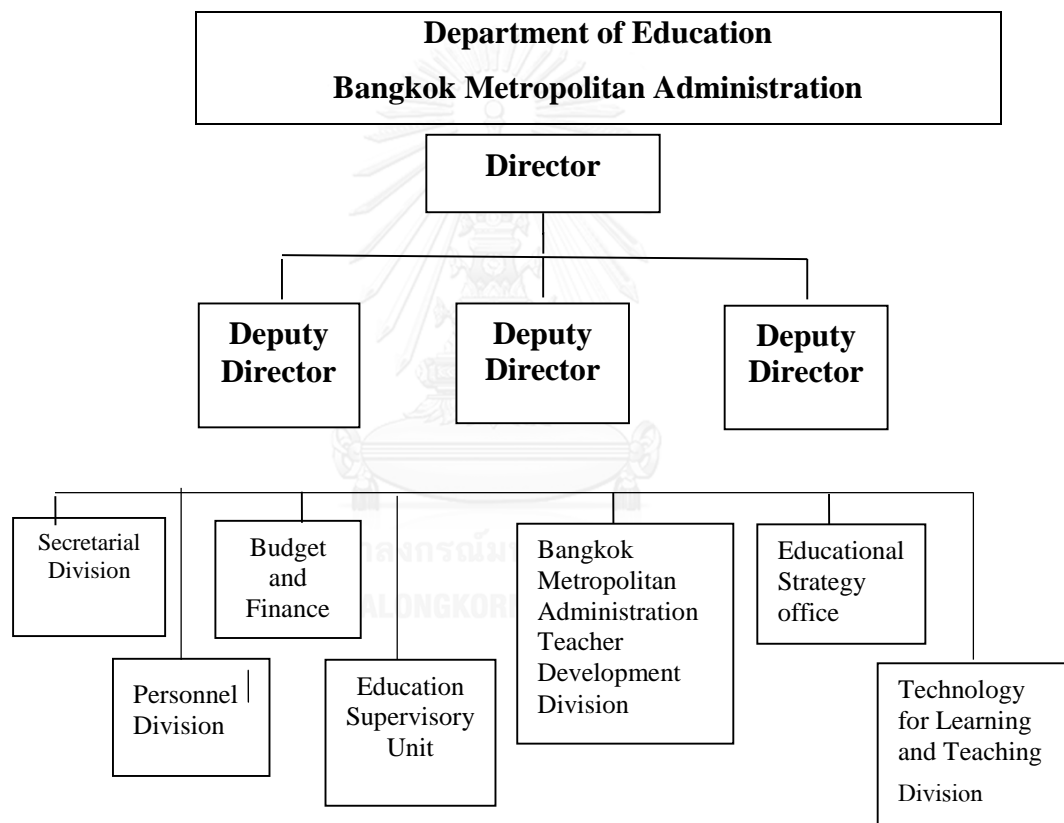
The Educational Strategy Office provides and carries out educational strategies, defines and promotes frameworks, the criteria of work relating to educational policies and plans, promotes educational provision, cooperation with domestic and overseas organisations, educational research studies, curricular and instructional work, and developments in educational standards.

The Technology for Learning and Teaching Division promotes and supports the use of information and communication technology for teaching and learning, producing and developing various types of learning resources. This division is the service centre of educational technology, providing services for various types of learning resources, organising the ICT systems for educational technology, promoting and supporting the production and development of learning materials in schools, and producing and disseminating academic documents on educational technology.

The Bangkok Metropolitan Administration Teacher Development Division develops and trains teachers and educational personnel of the Bangkok Metropolitan Administration. It analyses needs, designs curricula, defines policy, plans and standards of teacher training, and organises training as indicated in the standards for positions

stipulated in the Educational Personnel and Teachers Regulations Act B.E.2547 based on policy, needs, the development of specific skills, and in response to recommendations from management. This division also monitors and evaluates Boy Scout and Girl Scout work, study leave, training, meetings, conferences, seminars, study visits and trips. The structural management of the Department of Education is displayed in the figure 4.

Figure 4: Structural Divisions under the Department of Education, Bangkok Metropolitan Administration



Vision in 2015

The Department of Education is the key organisation of the Bangkok Metropolitan Administration with the aim of providing basic education and driving quality education in order to become an educational leader in the ASEAN Community.

Mission

1. To promote excellence in school management, advocating quality, integrity and transparency so that the standards of student learning can be developed in order for Thai students to compete with other students at the national and Asian regional levels.
2. To develop qualifications, abilities moral values, knowledge and skills in management and knowledge management of teachers and educational personnel with a focus on the unity of the policy with various practices.
3. To involve the cooperation of the wider society, including individuals, families, communities and private organisations in educational provision.
4. To define educational standards and organise an educational quality assurance system at all levels.
5. To promote the use of information technology and communication in management and teaching and learning.

Objectives

- 1) To put the annual action plan B.E. 2558 of the Department of Education and the BMA administrators' policies into practice under the fourth strategy, which is developing Bangkok to become a great city with a good quality of life and a positive cultural identity, and the fifth strategy, which is developing a management system and becoming a model of great city management.
- 2) To enable the Department of Education to have guidelines of work performance to be used for monitoring and evaluating the outcomes of the action plans of B.E.2558.

Goals

- 1) To provide basic education throughout Bangkok.
- 2) To provide quality education and to become educational leaders in the ASEAN community.
- 3) To have teachers and educational personnel who have the knowledge, abilities and skills to performing educational tasks.

Major Tasks to be implemented in the fiscal year B.E.2558

1. To promote excellence in school management, advocating quality, integrity and transparency so that the standards of student learning can be developed in order for Thai students to compete with other students at the national and Asian regional levels.
2. To develop qualifications, abilities moral values, knowledge and skills in management and knowledge management of teachers and educational personnel with a focus on the unity of the policy with various practices.
3. To build cooperative networks running through all sectors of society in order to provide quality education.
4. To define educational standards and organise a quality assurance system of education at all levels.
5. To promote the use of information technology and communication in management and instruction.

Strategies for an Action Plan of BMA in B.E.2558 (2015)

1. Bangkok is a great city of learning.
2. Bangkok is a great city of opportunity for all.
3. Management and Administration.

The strategies for the development of the Department of Education are as follows:

Strategies of the BMA Development Plan, the First Phase (B.E. 2556-2560 or 2013 - 2017) and an Annual Action Plan of Bangkok B.E. 2558 (2015):

- 1) To develop the quality of basic education and early childhood education programmes.
- 2) To create a network of cooperation among all sectors for providing education.
- 3) To expedite the promotion of children's and teens' physical health in schools.
- 4) To reinforce safety in schools.
- 5) To increase the effectiveness of human resource development.
- 6) To increase the information, communication technology system for providing service to people or government agencies (E-Service and M-Service).

- 7) To develop information systems that support the management of each government unit or task group.

Strategies of the BMA Development Plan, the Second Phase (B.E. 2556-2559 or 2013 - 2016): To develop Bangkok to become a Great City with a Good Quality of Life and a Positive Cultural Identity

The Department of Education has conducted a study of the specific contexts of schools under the Bangkok Metropolitan Administration and found several factors, both positive and negative, that have an impact on quality education. According to the study, the factors that have become weaknesses and threats include having an inadequate number of teaching staff, particularly staff who demonstrate good English skills, inadequate information technology systems which do not support the school operation, teachers' additional workload apart from the teaching load which is burdensome and impacts upon teaching and student learning and the bureaucracy of the educational system that has an adverse effect on the efficiency of the school operation. However, there are factors that have positive effects on the quality of schools under the Bangkok Metropolitan Administration; these schools are situated in areas that are centres of advancement in all aspects which benefit teaching and learning. The convenient use of information and communication technology gives access to various learning resource centres outside classrooms. The national policies and the policies of the Bangkok Metropolitan Administration support the decentralisation to district offices; as a result, the educational operation has been more effective. In addition, most of the educational personnel have the knowledge, ability, experience and responsibility to carry out their duties. These schools conduct research studies, develop themselves continuously and systematically whilst contributing to strong teamwork. In addition, both internal offices and external organisations give good support to the educational work of the Bangkok Metropolitan Administration.

Mission

- 1) To promote excellence and quality in school management.
- 2) To develop qualifications, abilities moral values, knowledge and skills in management and knowledge management of teachers and educational personnel with a focus on the unity of the policy with various practices.
- 3) To involve the cooperation of the wider society, including individuals, families, communities and private organisations in educational provision.

Objectives

1. To develop the quality of basic education.
2. To develop the provision of services to children and teens.
3. To develop the ability of teachers, educational personnel and others to providing quality education.

The action plans developed in response to the strategies are as follows:

1) To develop and improve language skills, including English and other foreign languages, and create standards for using Thai and develop criteria for using the languages of other ASEAN countries.

1.1) To ensure that all teachers and educational personnel teaching English participate in the English camp training programme: 'Putting BMA on the Road to ASEAN 2015'.

2) To provide people with the best services in order to become accurate, fast, inclusive and fair. The service channels and the effectiveness of service work to meet the needs of the people are increased.

3) To enhance the capacities, quality of life and personal and collective pride of staff in order to collectively develop the great city of Bangkok for sustainable living.

3.1) To continuously develop sources of information which is the body of knowledge for staff.

3.2) To study the techniques of management to be applied for the management of the great city of Bangkok.

3.3) To increase the effectiveness of the work performance management of government agencies using the principles of good governance.

3.4) To implement risk management and internal control systems.

Strategic Policy: Bangkok is a Great City for All.

Action Plan:

1) Schools under the Bangkok Metropolitan Administration provide learning activities that develop students' high-order thinking and problem-solving skills. The students participate in extra-curricular activity programmes which are also integrated into their mainstream subjects. Other programmes include raising achievement and quality of teaching and learning in Science, Mathematics and Reading

2) The quality of basic education and early childhood education must be developed.

2.1) The quality standards of schools under the Bangkok Metropolitan Administration are assessed with the SMART School educational standards of the Bangkok Metropolitan Administration. Other related programmes include promoting the development of school curricula, the Bangkok Metropolitan Administration Schools of Excellence project and the Bangkok Metropolitan Administration Top Talent, promoting children's and teens' capabilities to enable them to acquire a better quality of life in Bangkok areas as initiated by Her Royal Highness Princess Maha Chakri Sirindhorn. Other plans involve developing the quality of school networks, promoting teaching at Buddhist study centres on Sundays, raising achievement levels in Science and Mathematics, promoting creative stage plays, drawing and art projects, teaching foreign languages including Arabic and Japanese, developing musical skills and increasing the effectiveness of learning in music, the Boy Scouts Oath Taking and Marching Ceremony, the young Red Cross Oath Taking and Marching Ceremony, examination projects for becoming teachers and educational personnel within the Bangkok Metropolitan Administration, developing ICT systems to raise the capacities of human resource management which includes teachers and educational personnel, developing innovative classrooms for learning, promoting morals and awareness for anti-drug use, implementing the young tourist guide project, celebrating Teacher's Day and Children's Day, good schools, outstanding teachers, smart students, great city

project and the public relations project of the educational programme 'Here is Bangkok' on the radio.

2.2) District Offices ensure that students gain high levels of academic achievement. Several projects are implemented including coordination with the National Institute of Educational Testing Service, organising the O-NET examination and raising students' achievement in English.

2.3) Teachers, educational personnel, educational supervisors and those involved in providing education attend training sessions, workshops, seminars or join study trips at least once a year. The projects include induction for teachers and educational personnel, training and development for the promotion of teachers' positions, professional development of teachers, administrators and relevant personnel in order to strengthen them academically and professionally, the health project for teachers and educational personnel, training of Boy Scout personnel and leaders for the young Red Cross, supporting projects for educational professional clubs, seminars for Boy Scout leaders among school groups, seminars for young Red Cross leaders among school groups, Teach for Thailand, developing the quality of early years teachers, the workshop seminar on assessment and evaluation of the basic education core curriculum B.E. 2551 and developing personnel working on educational technology.

2.4) Building networks of cooperation in providing education in Bangkok with all sectors including government and private agencies, both domestic and overseas, which exchange academic staff, cultural information, teaching techniques and experiences in B.E. 2557. The projects include the technological and cultural exchange between Bangkok and Fukuoka, the learning of Chinese language and culture, the cultural exchange between Bangkok and Yashiyo, the cooperation and exchange in education between brother-sister schools in Bangkok and the Tienjin, seminar of governing boards of schools engaged in basic education, etc.

3) Students from Grade 1 to Grade 9 are healthy and pass the physical education examination; various types of sports matches or competitions are promoted.

4) Safety is promoted and strengthened in schools; the student injuries and loss of life from accidents and violence are reduced.

5) The effectiveness of human resources must increase; staff are professionally developed and apply knowledge in their work.

6) Teachers are professionally developed prior to their promotion to become school administrators or educational supervisors.

7) Teachers and educational personnel who pass the evaluation conducted by the committee can be promoted to higher positions.

8) Department of Education employees whose work is related to materials must be trained.

9) ICT systems are increased to provide e-service and m-service to people and other government agencies.

9.1) Develop ICT systems to support the administration of each department.

9.2) The quality of basic education and early childhood education is developed through the use of at least seven types of learning resources. These learning resources may include books for promoting reading, ready-made lessons, computer-assisted instruction lessons, video clips, e-books, power point presentations, picture cards, word cards, posters, teaching packages, pocket charts, etc.

10) The schools have an effective internal quality assurance system.

11) Bids for school facility construction projects are conducted through an electronic system.

12) District Offices publish passing scores on the results of students' examinations in Grades 3, 5 and 8.

Strategies implemented in response to the BMA Governor's Policies

The Governor of the Bangkok Metropolitan Administration has articulated his vision and strategy for educational management in order for all schools to continue developing their quality and standards. He promotes the use of innovations and information communication technology in the management of teaching and learning. Foreign languages are promoted and to be taught by foreign teachers. The schools are developed through the school network system and the involvement of communities including school boards, local wisdom and educational cooperation with public and private offices. In order for Bangkok to become "the Great City of Learning" as stated in the BMA Governor's policy, the following four areas are to be emphasised:

1. Student welfare is to focus on the following areas:

- 1.1 Students are provided with free breakfast; the breakfast is viewed as having a major impact on the brain development and students' readiness for learning.
- 1.2 Students are provided with free access to education.
- 1.3 Free school buses are provided to those who live in inconvenient areas.
- 1.4 Students are provided with safety helmets.
2. Students acquire strong English skills and are prepared to enter the ASEAN community. High -quality tutoring is provided to students learning in Matayom 3 (Grade 9) and Matayom 6 (Grade 12).
3. The standards of Bangkok universities is constantly enhanced in order to continuously produce graduates in instruction and curriculum; university graduates' collaboration with overseas universities is promoted.
4. Learning libraries and learning centres are located within the communities. Outside classroom learning is promoted through the set-up of learning libraries in all schools. Reading is promoted based on the UNESCO project of 'Bangkok is the World Book City B.E. 2556'.
5. The opportunities to access electronic communication systems are expanded. The 4-MB High-Speed WIFI is set up for free in 5,000 locations, particularly in schools, libraries, parks and many other places in Bangkok.

Strategies for Basic Education Development Plan of BMA (2013 – 2016)

1. To develop quality education at the basic level of education.
2. To develop teachers and educational personnel and all involved in providing basic education.
3. To develop the use of information technology in education at a standard similar to other nations.
4. To enhance the ability of students' to participate fully in the ASEAN community.
5. To promote the participation of all sectors, both domestic and international, in providing education.
6. To continue to increase opportunities for basic education.
7. To expedite the promotion of good health for children and youths studying in schools under the Bangkok Metropolitan Administration.

8. To create and promote safety for students.
9. To promote the educational provision for students with special needs in schools under the Bangkok Metropolitan Administration.

Policies and Action Plans

There are two policies and action plans which have been developed in response to the BMA Governor's policies:

Strategic Policy 1) Bangkok is a great city for learning.

Action Plan: The quality of learning will be developed in order to improve the quality of life. In order to achieve this, the following actions are to be implemented:

1) Students learning in schools under the BMA from Kindergarten to Grade 12 are instilled with five desirable and ethical characteristics including being honest, civic-minded, responsible, fair and self-sufficient.

2) Boy Scouts and Girl Scouts participate in the '100 Million Good Deeds' projects in order for children and teens to be instilled with moral values, to be well-disciplined and to undertake decent actions for themselves and their families, schools, communities and society.

3) Students studying in Matayom 3 (Grade 9) and Matayom 6 (Grade 12) are able to continue their education at higher levels in government education institutes.

4) Students from Grade 1–Grade 12 in schools under the Bangkok Metropolitan Administration in 2558 B.E. use computers in schools for learning as defined in the school curriculum.

5) Bilingual, English –Thai schools under the Bangkok Metropolitan Administration use English as the medium of instruction in five subjects including English, Mathematics, Science, Health Science and Art. Under the Bangkok Metropolitan Administration in B.E. 2557, schools must pass appropriate examinations and the assessment criteria in order to become Bilingual schools offering a English-Thai curriculum.

6) Teachers, school administrators and educational supervisors of the Bangkok Metropolitan Administration are trained in English camps.

7) A minimum of 80% of the total number of students learning Malay language lessons in B.E. 2557, either as extra-curricular activities or language clubs, pass the Malay for Communication examination.

8) Students learning in Grade 1–Grade 9 are provided with free breakfast. Their height and weight must meet the criteria requirements of the Department of Health.

9) Islamic studies are taught in schools and the instructors of Islamic studies are professionally developed to design and produce learning resources and use them in teaching and learning.

10) Students in the 438 schools under the Bangkok Metropolitan Administration are supported with expenses for the purchase of specified items.

Strategic Policy 2) Bangkok is a great city of opportunity for all

Action Plan: Children with special needs have increased opportunities to get basic education. Schools under the Bangkok Metropolitan Administration provide special education to children with special needs identified under nine categories including visual impairments, hearing problems, intellectual disabilities, speech and language impairments, physical disabilities, emotional disturbances, behavioural difficulties, autism and multiple disabilities. Students with special needs have the opportunity to learn in mainstream classrooms, to be developed to their full potentials and to be able to live independently in society.

2.2.2 Schools under the Bangkok Metropolitan Administration

There are 438 schools located in 50 District Offices clustered in six Bangkok area groups. These include Central Bangkok, South Bangkok, North Bangkok, East Bangkok, South Krungthon and North Krungthon. The total student population is 300,070 consisting of 51,124 kindergarten students, 212,462 primary school students, 35,866 secondary school students and 618 students with special needs. There are 14,431 teachers, 438 school directors and 580 deputy directors. (Data as of 19 December 2014.)

Table 6: Number of Schools under the Bangkok Metropolitan Administration in the academic year 2557 B.E., located in 50 districts of 6 Bangkok area groups, classified by size (as of 19/12/2557)

Bangkok Area	District Office	School Size			Total
		Small	Medium	Large	
Central Bangkok 41 Schools	Din Daeng District Office	-	-	3	3
	Dusit District Office	4	4	1	9
	Huai Khwang District Office	1	-	2	3
	Pha Nakhon District Office	9	2	-	11
	Phaya Thai District Office	-	-	1	1
	Pom Prap Sattru Phai District Office	4	-	-	4
	Ratchathewi District Office	1	3	-	4
	Samphanthawong District Office	3	-	-	3
	Wang Thonglang District Office	1	2	-	3
	Total	23	11	7	41
South Bangkok 59 Schools	Bang Kho Laem District Office	3	2	2	7
	Bang Na District Office	-	3	4	7
	Bang Rak District Office	5	-	-	5
	Khlong Toei District Office	1	2	1	4
	Pathum Wan District Office	5	3	-	8
	Phra Khanong District Office	-	3	1	4
	Sathon District Office	-	2	-	2
	Suan Luang District Office	2	3	3	8
	Vadhana District Office	2	5	1	8
Yan Nawa District Office	3	1	2	6	
	Total	21	24	14	59
North Bangkok 46 Schools	Bang Khen District Office	-	3	2	5
	Bang Sue District Office	3	4	-	7
	Chatuchak District Office	1	1	5	7
	Donmeang District Office	-	2	4	6
	Lat Phrao District Office	-	2	4	6
	Lak Si District Office	-	4	2	6
	Sai Mai District Office	1	2	6	9
	Total	5	18	23	46
East Bangkok 131 Schools	Bang Kapi District Office	3	3	5	11
	Bueng Kum District Office	1	3	4	8
	Khan Na Yao District Office	-	-	2	2
	Khlong Sam Wa District Office	6	5	7	18
	Lat Krabang District Office	6	4	10	20
	Min Buri District Office	5	5	3	13
	Nong Chok District Office	25	6	6	37
	Prawet District Office	5	5	6	16
	Saphan Sung District Office	1	3	2	6
	Total	52	34	45	131
North Krungthon 91 Schools	Bang Phlat District Office	8	3	-	11
	Bangkok Noi District Office	11	4	-	15
	Bankok Yai District Office	4	2	-	6
	Chom Thong District Office	2	4	5	11
	Khlong San District Office	3	4	1	8
	Taling Chan District Office	10	6	-	16
	Thawi Watthana District Office	2	1	4	7
	Thon Buri District Office	14	3	-	17
	Total	54	27	10	91
South Krungthon 70 Schools	Bang Bon District Office	3	3	3	9
	Bang Khae District Office Nong	1	4	7	12
	Bang Khun Thian District Office	3	3	10	16
	Nong Khaem District Office	-	1	5	6
	Phasi Charoen District Office	7	3	3	13
	Rat Burana District Office	2	2	2	6
	Thung Khur District Office	2	3	3	8
	Total	18	19	33	70
	Total schools in all districts	173	133	132	438

**Small- sized school: student population is 1 – 400

Medium-sized school: student population is 401 – 800

Large-sized school: student population is greater than 800

2.2.3 Coaching Culture Technique

From the study of the report (2014:Online) published on the Department of Education website, a project of implementing a Coaching Culture technique for the fiscal year of B.E. 2557 was created. The principles and rationale of the project are to increase the effectiveness of staff performance, to develop good collegial relationships within a caring and supportive organisational culture and to bring tacit knowledge into practice; as a result, the development of quality education increases its effectiveness. Each unit must implement a coaching culture technique. The administrators of the Department of Education including the Director of Educational Strategy Division, the Director of Technology for Instruction, Heads of each office under the educational strategy division and the technology for instruction and any involved academic staff collaboratively develop action plans, publicise the project, organise meetings and implement the project of coaching culture technique. The team of selected experts are organised to become coaches and the coaching plans are developed. The techniques include sharing information on work experience, studying the documents, closely supervising the practice and building confidence through positive reinforcement. The plans are also monitored and evaluated. However, there are problems and obstacles in implementing the coaching culture technique. Heavy staff workloads, with urgent deadlines constantly having to be met, have prevented them from meeting regularly. Nevertheless, for the coaching culture technique to work, staff need to have informal meetings to follow up and discuss the coached matters. The report describes the implementation of the coaching culture technique into the following areas of work and working groups: 1) The educational assessment and evaluation group teaches how to produce test blueprints for the structure of test papers and the knowledge received during the coaching is used to produce test papers in various subjects. 2) The educational policy and planning group teaches how to use a daily planning system to record and report on activities, projects, key performance indicators, and the monitoring and reporting of the outcomes of implemented projects. 3) The promotion of educational provision and cooperation with domestic and overseas organisations group

teaches how to develop procedures, criteria, and the committee's order for selecting outstanding children and teens along with coordination with the National Council on Social Welfare of Thailand (NCSWT). 4) The curriculum and instruction group teaches how to organise teaching and learning of the Islamic studies in primary schools, including the selection of suitable instructors. 5) The development of standards and quality assurance group teaches the study of the principles of internal quality assessment, the analysis of standards and preparation of the annual report. 6) The research, media and technology development group teaches the procedures for carrying out tasks to support research funds for educational technology. 7) The resource production and distribution group teaches how to put resources and media on the website. 8) The promotion of using technology in instruction group teaches how to manage school tablets. The study reveals that the coaching culture approach has been introduced in various areas that support the work and operation of schools. However, it is not stated in the report that schools implement coaching for teachers' instruction in classrooms aiming to improve student achievement and learning.

According to the review of literature, the Department of Education, Bangkok Metropolitan Administration, makes attempts to implement policies, plans and projects that promote high student achievement and student well-being, teachers are developed to be capable of preparing students to be equipped with language, technology and critical-thinking skills in order for them to be ready to enter the ASEAN community. However, the introduction of Professional Learning Communities in schools does not appear to be stated explicitly in the policies or plans. Although the coaching culture approach is introduced and implemented in different areas of work that are found to support the school operation, the approach does not appear to place enough emphasis on the instructional practice in classrooms which has a direct impact on student learning. The concept and development of the attributes of Professional Learning Communities has not been stated clearly in their educational practice. The strategies to put the concept and development of these attributes into practice will also need to be explored, developed and implemented.

2.3 School Management

The concepts and theories of educational management have explained about tasks and steps that school administrators are to implement and to be responsible for in order to achieve desirable goals and objectives.

Henry Fayol (1916), a French engineer, stated that the elements of management, which are the foundation of management, consist of the following five activities (POCCC):

1. Planning (P) – setting targets and action plans in advance.
2. Organising (O) – organising tasks and people with shared responsibilities.
3. Commanding (C) – making decisions, ordering and facilitating.
4. Coordinating (C) – liaising tasks among departments.
5. Controlling (C) – monitoring the planned operation.

Luther Gulick and Lyndall Urwick were heavily influenced by French administration theory; they adapted Fayol's concept on the elements of management and applied it to public administration; their management concept includes these seven steps (POSDCoRB):

1. Planning.
2. Organising.
3. Staffing.
4. Directing.
5. Coordinating.
6. Reporting.
7. Budgeting.

The American Association of School Administrations (AASA) has stated that the educational administration process should include five steps:

1. Planning.
2. Allocation of resources, manpower, authority and materials.
3. Stimulation.
4. Coordination.
5. Evaluation.

Robert F. Campbell described the 5 steps of the management process as follows:

1. Decision-making.
2. Programming.
3. Stimulating.
4. Coordinating.
5. Appraising.

Koontz and O'Donnell (1968: Online) clearly described the principles of management to be used in performing various functions of management including the following steps:

1. Planning.
2. Organising.
3. Staffing.
4. Leading.
5. Controlling.

Jesse B. Sears (1950) explains that educational management should follow five steps including:

1. Planning.
2. Organising.
3. Directing.
4. Coordinating.
5. Controlling.

Russell T. Gregg (1967) summarised that educational administration included these seven steps:

1. Decision Making.
2. Planning.
3. Organising.
4. Communicating.
5. Influencing.
6. Coordinating.
7. Evaluating.

Deming (1993) refers to a four-part management method of Deming's cycle that preaches continuous improvement and is made up of:

1. Plan: Choose a process and set objectives.
2. Do: Implement the plan and begin collecting data on the results.
3. Check/Study: Analyse the results using statistical methods.
4. Act: Decide what changes to make in order to improve the process.

George R. Terry (2007:Online) defines management as a process consisting of planning, organising, actuating and controlling which is performed to determine and accomplish objectives by the use of people and resources. Planning means that managers think of their actions in advance. Their actions are usually based on some method, plan or logic, rather than a hunch. Organising means that managers coordinate the human and material resources of the organisation. Actuating means that managers motivate and direct subordinates. Controlling means that managers attempt to ensure that there is no deviation from the norm or plan. If some part of their organisation is on the wrong track, managers take action to remedy the situation.

Sakda Sakonthawat (B.E.2555 or 2012) synthesises various concepts of management which were developed by Fayol (1916) , Gulick & Urwick (1937) , Sears (1950) and Deming (1993) and finds that the school management process includes planning, implementing and evaluation; the process is displayed in table 7 and 8 below.

Table 7 Analysis of the management process

Concepts of Management Process	Analysis of Concepts
1. POCCC Model by Fayol (1916) includes: P – Planning O – Organising C – Commanding C – Coordinating C – Controlling	1.Planning 2. Implementation 2. Implementation 2. Implementation 3. Evaluation
2. POSDCORB Model by Gulick and Urwick (1937) includes: P – Planning O – Organizing S – Staffing D – Directing Co – Coordinating R – Reporting B – Budgeting	1. Planning 2. Implementation 2. Implementation 3. Evaluation 2. Implementation 3. Evaluation 2. Implementation
3. PODCC by Sears (1950) includes: P – Planning O – Organizing D – Directing C – Coordinating C – Controlling	1. Planning 2. Implementation 3. Evaluation 2. Implementation 3. Evaluation
4. PDCA by W. E. Deming (1993) includes: P – Plan D – Do C – Check A – Action	1. Planning 2. Implementation 3. Evaluation 3. Evaluation

The concepts of the management process from different theorists have been studied, analysed and put into three major steps including planning, implementing and evaluating (PIE).

The analysis of the management process is displayed in the table 8

Table 8: Table of Analysed and Synthesised Management Process

	Fayol	Gulick & Urwick	AASA	Koontz & O'Don-nell	Sears	Camp-bell	Gregg	Deming	Synthesised Concept by Sakda Sakonthawat
Decision Making						✓	✓	Plan	Planning
Planning	✓	✓	✓	✓	✓		✓		
Organising	✓	✓		✓	✓		✓	Do	Implementing
Allocating			✓						
Programing						✓			
Staffing		✓		✓					
Communicating							✓		
Commanding/ Directing/ Leading	✓	✓		✓	✓				
Coordinating	✓	✓	✓		✓	✓	✓		
Stimulating/ Influencing			✓			✓	✓		
Budgeting		✓							
Controlling	✓			✓	✓				
Reporting		✓							
Evaluating/ Appraising			✓			✓	✓	Act	Evaluating

The three steps, including planning, implementing and evaluating, are explained in further details as follows:

P-Planning

Plan is a Latin word derived from planum which means defining a two-dimensional form, such as a map or a blueprint of structures. However, the word was later widely used by the public and private sectors.

Fayol referred to planning as "an examination of the future and drawing up plans which are of actions."

Gulick defined planning as "working out in broad outline the things that need to be done and the methods for doing them to accomplish the purpose set for the enterprise."

Sears (1950: p40 – 41) explained the meaning of planning as "to get ready to decide or to act upon some problem or piece of work or an aspect of any administrative activity in which the situation is too involved to be disposed of offhand."

Deming (1993) defined a plan as "choosing a process and setting objectives."

Keesukphan (1995: p35) defines planning as a preparation or a prediction which prepares the administrator to be ready to manage tasks in the future.

Dessler (1999: 95) gave a definition of planning as "a process of setting objectives, goals, activities to be implemented in order to achieve goals and objectives."

P N P & Reddy Tripathi (2007: Online) describe planning as "the function that determines in advance what should be done. It is looking ahead and preparing for the future. It is a function which is performed by managers at all levels."

Boonprasert (1989: p229-230) describes planning as a process of preparing documents stating details of tasks or activities to be implemented in the future. These details include goals, objectives, aims, processes and steps, the allocation of resources, monitoring, controlling and evaluation the success of the plan to see if the goals and objectives of the plan have been achieved.

From the study of various definitions, planning can thus be defined as a process of thinking and making decisions about tasks to be implemented in order to achieve goals and set objectives; it includes steps, timeframes, responsible people and success indicators which are how the results will be monitored and evaluated.

Kast and Rosenzweig (1985) define planning as a process for decision-making in advance to identify what and how things are to be done and what objectives, projects and procedures are needed to achieve the goals.

H. Koontz and O'Donnell (1968) define planning as a decision made in-advance concerning what, how and when things are to be implemented and who will be implementing them. Planning can be a path which leads to the required objectives of the future.

Simon, Smithburg, and Thompson (1950) define planning as the process of activities and procedures needed to be implemented in order to achieve the expected outcomes in the future; the process of implementation must be controlled.

Hicks and Gullett (1981) defines planning as the first step that management must conduct for a particular activity. In order for the plan to be successful, information from the past, the decisions of the present and an evaluation of the future must be analysed.

Hellriegel and Slocum (1989) define planning as a formal operation of tasks consisting of the selection of short-term and long-term tasks, defining objectives by tasks which are in accordance with the objectives of the organisation and the selection of strategies needed for achieving the objectives.

From the studies of these various definitions, planning appears to consist of preparing an annual action plan in advance which includes creating plans of tasks, projects and activities. It is a decision made in advance in order to achieve the objectives of the organisation.

I-Implementation

The implementation step is very important to the management process. From studying the synthesised chart, we can see that it includes various activities, including organising, staffing, budgeting, allocating, directing/commanding, coordinating, and stimulating/ influencing.

The implementation of the plan is by and large found to be the most important step; for instance, the curriculum implementation is a step when the administrators and teachers use the curriculum to design lesson plans, learning activities, to prepare staffing, facilities, learning materials and to conduct student assessment. The plan will not be put into practical effect if it only remains as words in a document. Therefore, the implementation of the plan must be exercised carefully. The information, including

internal and external factors, must be carefully studied before implementing the plan. The implementation of the plan should proceed according to previously-made decisions and as defined in the working calendar. The record of implementation should be documented to be used as data for evaluation. A unit or a person should be appointed to be responsible for the implementation. The training and guidelines for implementation should be provided to those who will carry out the implementation of the plans to ensure they have a clear understanding of the objectives of the plans. Resources must be allocated and appropriately used for the plan. Administrators and staff at all levels of ability, skill, expertise and experience must be accounted for in the implementation step. In addition, there are factors contributing to success or failure of the implementation which include staff, budget, materials, intra-communication and the capabilities of the management. The management must select the best options for the implementation of the plan and cost-saving and effective options must be considered.

Rouse (2007: Online) states that implementation means to carry out or to practise a plan or given procedures so that the plan or procedures can take place.

Keesukphan (1995: p38) refers to implementation as putting the developed plan into practice which includes various activities such as assigning responsible people to monitor the implementation, having meetings to develop an understanding about the operation of tasks, allocating sufficient resources to continuously support the operation, developing coordination and cooperation with concerned people, and supervising, coaching, monitoring and controlling the implementation.

ยุทธนา พรหมณี (2547) defines implementation as conducting an operation in order for the policy to be achieved. The projects or activities must be put into effect in order to achieve the objectives and goals. The responsible units or persons along with clear procedures must be defined.

Therefore, the definition of implementation refers to the process and activities stated in the plan which are to be carried out in order to achieve the defined goals.

E-Evaluation

Evaluation (BusinessDictionary.com: Online) "is rigorous analysis of completed or ongoing activities that determine or support management accountability,

effectiveness, and efficiency."

Deming (Online) states that "the evaluation is a pronouncement concerning the effectiveness of some treatment or plan that has been tried or put into effect."

Evaluation (European Funds Portal: Online) "consists of objective assessment of a project, programme or policy at all of its stages, i.e. planning, implementation and measurement of outcomes. It should provide reliable and useful information allowing to apply the knowledge thus obtained in the decision making process. It often concerns the process of determination of the value or importance of a measure, policy or programme."

W. E. Deming (1993) states that evaluation means to assess if the performance achieves the goals or objectives and to see if any problems have occurred during the implementation and, if so, how the problems are to be solved effectively. The monitoring and evaluation must be carried out together with the implementation. Kaplan and Norton (1996) explain that the evaluation of an organisation, that enables the senior management to clearly see the big picture of the organisation, should be conducted using four aspects of the balanced scorecard. These include the financial aspect, customer satisfaction aspect, management aspect and learning innovation and growth aspect. Supanee Salidwanich (B.E. 2554 – 2011) explains that evaluation is the step whereby the operation of the plan is monitored to see if the plan is appropriate and in accordance with the structure of the organisation and the controlling mechanisms in order to yield the most profits.

In summary, evaluation refers to the examination of problems, the assessment of successful objectives, goals and key success indicators of plans, projects and activities.

2.3.1 Scope of School Management Tasks

The National Association of Elementary School Principals: NAESP (1984) states that the seven major standard indicators for administrators of elementary schools to possess are as follows:

1. To be able to organise the school.
2. To have leadership in educational management.
3. To be able to provide or develop the curriculum.

4. To be able to provide teaching and learning.
5. To be trained and professionally developed.
6. To be able to create learning environments.
7. To be able to assess and to evaluate.

It is stated in the Thai National Education Act of 2002 that the scheme of academic tasks includes the following five areas:

1. Curriculum development and implementation.
2. Instructional provision.
3. Teaching supervision.
4. Assessment and evaluation.
5. Educational quality assurance.

The scheme of academic tasks or curriculum management stated by the Thai National Education Act 2002 appears to be aligned with the standard indicators of the management stated in the NAESP.

2.3.2 Curriculum Management

Definition of curriculum management

The management of curriculum, instruction and assessment at a school plays a major role in improving the quality of the school and its learners. Danielson (Online) describes a school's curriculum as the expectations and goals for the development of students' learning experiences which incorporates the school's learning objectives, programmes, courses and the state or district standards. George W. Stansbury and Dorothy Huenecke (Online) define curriculum management as a process consisting of four major parts: 1) The identified, established goals. 2) A formulated process of guiding educators to accomplish the goals. 3) The established management techniques to implement the identified process. 4) The constant review and evaluation of the suitability of the identified goals, processes, and management techniques.

Samarn Aswapoom (2008) defines curriculum management as a process of operating tasks to enhance effective teaching and learning and achieve educational goals; those tasks include: 1) Academic planning. 2) Curriculum development. 3)

Teaching and learning. 4) Teaching supervision and instructional development. 5) The evaluation of academic work.

Roongchatchadaporn Wehachart (2007) defines curriculum management as a process or activities relating to the improvement of teaching, learning and evaluation to achieve the curriculum goals and to enable students to benefit the most.

Chantranee Sanguannam (2002) defines curriculum management as the management of all types of activities in a school that are relevant to the development and improvement of teaching and learning in order to get effective results and achieve the curriculum goals.

Kamol Pooprasert (2001) defines curriculum management in a school as a management process relating to the development of quality education which is the ultimate goal of the school mission.

Anusak Smitsant (1999) defines curriculum management as the management of all types of school activities relating to the development and improvement of teaching and learning activities, teaching resources, instruction, curriculum and professional development. Academic management therefore further improves the quality of teaching and learning.

Preeyaporn Wonganutraroj (1992) defines curriculum management as school management that enables the improvement of teaching and learning and brings about good results that are of the utmost benefit to students.

In summary, curriculum management is the management of all tasks or activities in a school that are relevant to the development and improvement of teaching and learning. This brings about good results and benefits students the most.

The Curriculum Management Processes

Margaret Preedy (2002. p.154) explains that curriculum management is a cycle of four steps including planning, implementing, monitoring/evaluating, and reviewing or auditing. The curriculum management cycle is active and aims to improve student achievement. The major characteristics of the curriculum are as follows:

1. It should be designed and developed in response to the school's vision, mission and goals.
2. It should cover all subjects of learning.

3. It should be balanced; each subject of learning should have equal emphasis.
4. It should address a vertical link so that there is continuity from preschool to secondary school.
5. It should address a horizontal link so that there are cross-curricular ties.
6. It should be relevant to the students' needs and goals.
7. It should be differentiated to address all individual students' learning needs.

2.3.3 Curriculum Management in Thailand

The Thai National Education Act 1999, 2nd edition amendment of 2002 describes curriculum management as one of the four main tasks of school management which include curriculum management, human resource management, finance and budget management and general management. Preeyaporn Wonganootraroj (1991) states that curriculum planning is important and useful to schools; it helps to identify problems and ensures that solutions are sought. Uthai Boonprasert (1997) states that curriculum management is the principle task of a school and crucial to school management. Therefore, curriculum management has an impact on the quality of a school and school administrators must have knowledge, understanding and value the importance of academic work in order to successfully develop learners to achieve their academic goals and maintain the quality educational standards of the school.

The Thai Ministry of Education (2007) describes the principles of curriculum management as the following:

1. Schools must develop the school curriculum under the framework of the core curriculum of basic education. The school curriculum must relate to the problems and needs of the community and society; teachers, school management, parents and the community must take part in curriculum development.

2. The school should provide learning experiences to students using a student-centred approach.

3. The community and society are encouraged to take part in designing the curriculum, the learning process and to establish networks and learning resource centres.

4. The school must provide quality education and must develop standard indicators to check the quality of the curriculum.

5. The school must promote collaboration and networking to increase efficiency and quality of the educational provision and development.

2.3.4 Tasks of Curriculum Management

It is important that school leaders understand tasks and responsibilities relating to curriculum management. Kitima Preedeedilok (1989) defines the following six major tasks of curriculum management:

1. Academic action plan.
2. Curriculum and instruction.
3. Teaching and learning, including timetabling, staffing, student lists and classes, lists of textbooks, library and handbooks.
4. Teaching materials.
5. Improving teaching and learning; teaching supervision and training.
6. Assessment and evaluation.

Preeyaporn Wonganootraroj (1992) describes the tasks of curriculum management as follows:

1. Curriculum planning is the planning of curriculum development, the implementation of the curriculum and the planning of teaching and learning.

This includes these three aspects:

- 1.1 A curriculum action plan including curriculum meetings, school calendars, job descriptions, and working times and procedures.
- 1.2 Instructional programmes, including teaching courses.
- 1.3 Lesson plans.
2. The management of teaching and learning includes:
 - 2.1 Timetabling which is comprised of provided subjects, teaching periods, staff, rooms and groups of students.
 - 2.2 Classrooms and facilities
 - 2.3 Staffing
 - 2.4 School textbooks
 - 2.5 Improving instruction
 - 2.6 Training and development
3. Promoting the quality of curriculum and teaching and learning.

- 3.1 Providing teachers with various resources and activities
- 3.2 Providing various reading matter, printed materials and equipment in the school library for students to work on their research.
- 3.3 Provide coaching and teaching supervision.

Uthai Boonprasert (2540) explains that the scope of curriculum tasks includes:

1. Knowledge and understanding of the curriculum and its implementation.
2. Teaching and learning must be aligned with the principles and goals of the curriculum and the development of teaching quality.
3. Students' activities must be organised to be in line with the curriculum and to meet the curriculum goals.
4. Teaching and learning resources and library activities must be organised to enhance instruction and to support the students' learning development to acquire desirable attributes stated in the goals of the curriculum; the library becomes the source that promotes the teachers' current academic knowledge.
5. Student assessment and evaluation must be aligned with the learning objectives, the goals of the curriculum and the school's quality standards.
6. Teaching supervision and professional development for teachers and academic staff.

2.4 Strategic management

The rapid change of the external environments due to globalisation in the 21st century has affected the effective performance of the organisations. Therefore, it is important that suitable management strategies are to be developed and employed by the organisation in order that the organisations can cope with changes and make appropriate decisions for necessary actions (Spencer, Jerry. 2009). Strategic management can be a long-term operation which involves collective decision-making of all departments of the organisation; the operation is planned, implemented using available resources and evaluated on its effectiveness in order that the organisation can effectively perform towards achieving its defined objectives.

Definition of “Strategy”

This word was first used in French as “Stratageme” in 1233, the word "strategy" derives from Greek as “strategos” or "generalship" which has a combination of two separate words and meanings as stratos which means “an army” and agein which means “to lead”. The word describes how people would do things to achieve their goals. It gives less detailed information than an action plan which would describe in details who will do the activities, how and when the activities are done. The word has later been used in management and its meaning is “to lead the total organization”. In 1808, the new word came up in French as “Strategie” of which its meaning is matched with “Strategy” in English and widely used by various public and private organisations, military forces, government officials, politicians, businessmen and scholars.

Gluek (1984) states that strategic management is a stream of decisions and actions which leads to the development of an effective strategy or strategies to help achieve corporate objectives.

Sharpin (1985). Strategic management is the formulation and implementation of plans and carrying out of activities relating to the matters which are of vital, pervasive or continuing importance to the total organization.

Certo and Peter (1991) define strategy as a procedure to carry out tasks in order to achieve the goals of the organization.

Mintzberg (1994) and Glueck (1996) define the meaning of strategy as a pattern of decision making with explicit rationale and have gathered many things together; the strategy is therefore an important action plan that can lead people to achieve the objectives and goals of the organisation.

Mintzberg (1994) also describes 5 Ps principles of strategies which refer to different meanings as follows:

1. Strategy is a plan (P1), it refers to the activities which give directions or guidelines for the operation in the future
2. Strategy is a pattern (P2), it refers to a behavioural pattern in performing ongoing tasks for a period of time which indicates that planning for the future must consider the evolution of the organisation in the past. In addition, leaders must take into account of abilities and expectations of those who perform tasks

when planning. Sometimes the leader's strategic intention to achieve the goals may not be plausible; however, those who perform the tasks may use their abilities and expertises to adjust the strategies and make things happen.

3. A strategy is a position (P3), it refers to the emphasis placed on customers or those who receive services; therefore, products or services must be suitable to meet different needs of customers.
4. A strategy is a perspective (P4), it refers to the perception or the approach of work operation of the organisation that all staff must follow, the real conditions of the organisation must be considered.
5. A strategy is a ploy (P5), it refers to the artifice employed in the operation in order that the organisation can achieve its goals or gain victory when the organisation is facing the competition.

It is not necessary for the organisation to create strategies that refer to the complete definitions of all five principles, each strategy can be different depending on the situations, internal and external environments that are dynamic. The strategies selected for implementation can have meanings that are aligned with the real situations.

Porter, M. E. (1996). *Strategy is the creation of a unique and valuable position, involving a different set of activities.* (cited by Aarti Nirgudka:online). *Strategy is the best selected activities of an organization that potentially enable the organization to achieve successfully* (cited by Niramitr Thiemtan, 2555).

Nattapan Kaejornandt (2001) defines the strategy as setting the direction and boundaries of the long term needs of the organisation in order to allocate resources to match with the competitive environments and the expectation of those involved with the organisation.

Siriwan Serirat et al (2002) states that the strategy is a pattern of the senior leaders' actions in the organisation to use and lead in order to achieve the objectives of the organisation; therefore, the details of the actions must reflect the real strategies of the organisation and must be clearly planned and can be used to cope with any changing situations.

Adebis (2011) explained that *strategic management is also about assessing why some organization are doing fine and why some are doing otherwise in the same*

environment with opportunities and threats. (cited by Babatunde, Bayode O. and Adebola O. Adebisi)

From the studies of various definitions of a strategy, it is concluded that the strategy means proactive actions or directions leading to the objectives or goals of the organisation and enable the organisation to be able to cope with changing environments and to continue its operation in order to achieve its goals.

2.4.1 Process of Strategic Management

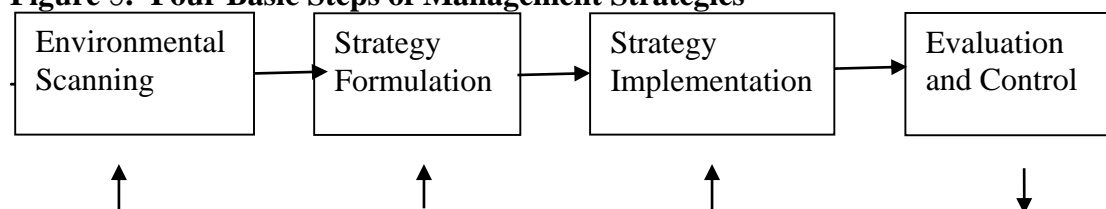
Lamb (1984) identify three activities of a strategic management as (a) ongoing analysis and assessment of the industries their competitors (b) goal and strategy setting to be compatible with competitors and (c) regular evaluation of each strategy to determine the success or the need for their replacement to cope with external changes of the organisations.

Kazmi (2008) said the *management strategy of an organization entails three processes including the analysis, decision and actions. This is management strategy that is concern with the analysis of strategy goals (vision, mission, and strategic objective) along with the analysis of the internal and external environment of the organization.* (cited by Babatunde, Bayode O. and Adebola O. Adebisi).

These concepts are aligned with Wheelen's and Hunger's (2004:9) four basic steps of strategic management which include 1) environmental scanning 2) strategy formulation 3) strategy implementation and 4) Evaluation and Control

The four basic steps of management strategies can be illustrated in the figure 5.

Figure 5: Four Basic Steps of Management Strategies



Source: Wheelen and Hunger (2012:63) **Strategic Management and Business Policy**. 13th ed. Upper Saddle River, New Jersey: Pearson.

The environmental scanning

The environment of the organisation can affect the change and development of the organisation. The environmental scanning refers to the SWOT analysis or the analysis of external and internal environments of an organisation. Hunger (2004) state that

“over the years, SWOT analysis has proven to be the most enduring analytical technique used in strategic management.”

T. L. Wheelen and Hunger (1995) explain that the external environment include socio-cultural, economic, politic and legal aspects. The SWOT analysis will help the management team to acknowledge the situations or the environments the organisation is facing, and would help the team to be prepared and develop strategic plans to tackle or to cope with the situations or environments.

The external factors could have a positive or negative impact on the operation and growth of the organisation. The analysis of the external factors helps to identify the opportunities (O) and the threats (T) of the organisation. Uthit Khaothien (2006) explains that the SWOT analysis is an evaluation of the current environment of the organisation; the analysis of strengths and weaknesses will help the organisation to understand the internal developmental process and the analysis of the external environment will help the organisation to understand which external factors contribute to the opportunities and threats of the organisation. The SWOT analysis can be conducted for various purposes as follows: 1) to study and understand the general environment which will help the organisation to make decisions on approaches needed to operate under the situation. 2) to assess the difficulty of a situation which impacts the mission or main activities of the organisation; it can also help the organisation to select suitable strategies needed to achieve the purpose within the competitive environment. 3) to create an approach to improve the mechanism of the organisation or the developmental process and to recognise which factors are supportive or hindering to the operation and achievement of projects or activities of the organisation.

Wattana Wongkietratana et al (2006) also state three major roles of the environmental studies and analysis as follows: 1) to define policies and strategies

needed (2) to coordinate needed action plans (3) to define roles, responsibilities and activities of the organisation and operational units.

The analysis of external environment reviews factors which can become threats or opportunities of the organisation and may have direct or indirect impact on the operation of the organisation in a long term; they include the economic (E), social(S), political(P) and technological(T) environments or so called PEST.

Ovidijus Jurevicius (2013: online) explains that the PEST analysis is conducted to analyse the political, economic, social and technological factors in the external environment of an organization in order to understand the overall environment which may affect its activities and performance. The following template in table 8 is designed to gather information for PEST analysis.

Table 9: PEST analysis template

PEST analysis template	
Political factors	Economic factors
Government stability and likely changes Bureaucracy Corruption level Tax policy (rates and incentives) Freedom of press Regulation/de-regulation Trade control Import restrictions (quality and quantity) Tariffs Competition regulation Government involvement in trade unions and agreements Environmental Law Education Law Anti-trust law Discrimination law Copyright, patents / Intellectual property law Consumer protection and e-commerce Employment law Health and safety law Data protection law Laws regulating environment pollution	Growth rates Inflation rate Interest rates Exchange rates Unemployment trends Labor costs Stage of business cycle Credit availability Trade flows and patterns Level of consumers' disposable income Monetary policies Fiscal policies Price fluctuations Stock market trends Weather Climate change
Socio-cultural factors	Technological factors
Health consciousness Education level Attitudes toward imported goods and services Attitudes toward work, leisure, career and retirement Attitudes toward product quality and customer service Attitudes toward saving and investing Emphasis on safety Lifestyles Buying habits Religion and beliefs Attitudes toward "green" or ecological products Attitudes toward and support for renewable energy Population growth rate Immigration and emigration rates Age distribution and life expectancy rates Sex distribution Average disposable income level Social classes Family size and structure Minorities	Basic infrastructure level Rate of technological change Spending on research & development Technology incentives Legislation regarding technology Technology level in your industry Communication infrastructure Access to newest technology Internet infrastructure and penetration

Source: **Ovidijus Jurevicius.(2013:online)** PEST & PESTEL Analysis. **Strategic Management Insight** © 2013-2015. <http://www.strategicmanagementinsight.com/tools/pest-pestel-analysis.html>

The economic aspect may include cost of living, inflation, interest rates, tax rates and unemployment rate, etc. The technological aspect may include new innovative technologies, advanced ICT knowledge and skills, industrial machines, computers and information technology, etc. The politic and legal aspects may include the government policies, both national and local, and stability, legal amendment and revised or rectified regulations that may affect the management, etc. The social aspect may include the socio-cultural factors such as social structure, lifestyles, gender, age, level of education, literacy skills, values and beliefs, traditions, cultural practices, careers, and consuming behaviours, etc.

T. L. Wheelen and Hunger (1995) explain that the internal environment consists of the organisational structure, lines of authority and command, the organisational culture, resources, assets, knowledge and skills, etc. Wattana Wongkietratana (2006) states that the analysis of internal factors helps to identify the strengths (S) and the weaknesses (W) of the organisation. The analysis should consider functioning resources which include activities that add values and provide benefits to clients, the advantages and disadvantages of coordination among departments, line of authority and command, effective use of resources and the staff's capacities, etc.

The analysis of the school environment

Rungsun Maneelek (2006) states that in order to analyse the school environment to find strengths and weaknesses, data should be collected from various sources including the school information system, the community comprising parents, school board, teachers and students, etc. Rungsun considers the the analysis of the internal environment of the school as a process; the input and process involve sufficient school staff (Man) to organise quality activities, sufficient budget (Money) to be allocated for the management to achieve the purpose, sufficient and quality materials and equipments (Materials) to be used in the operation and the structure of management (Management) to operate all school activities to move forwards. Therefore, the factors of the internal environment may include as follows: 1) the organisational structure including line of authority and command, communication, task assignment, 2) culture including beliefs, values, expectations, 3) services including facilitating services of different departments

in the organisation and 4) resources including the quantity and quality number of students completing the school.

However, the external factors including the economic, social, political and technological aspects must be considered also in order to identify opportunities and threats to the school. Boonliang Kamchoo (2001) explains that the analysis of mission or tasks of the organisation is a process of strategic management; the analysed information will help to develop the best approach to be implemented to achieve the mission. Therefore, the appropriate relationship between the school and the environment is important to the planning and development in order to provide the education effectively and efficiently. The analysis of the school mission include the following steps: 1) conduct the portfolio analysis to identify the current and desired states of the school 2) create strategic plan for the school operation 3) make a summary of the school operation plans, projects 4) organise the school information, communication system 5) prepare a draft of the school initial provision 6) clearly define the school objectives for the operation 7) coordinate with relevant departments 8) define the school directions within the given timeframe.

The Office of National Education Commission(2002) states that the analysis of the internal environment is the study of factors that influence the school operation; however, the school can control those factors which include 2 S and 4 M as follows:

- 1) S1 represents the structure, the policies and the system of work of the school
- 2) S2 represents the products and services, efficient and quality educational services and quality learners
- 3) M1 represents the quantity and quality staff of the school
- 4) M2 represents efficient and sufficient budget, cash flow, efficient budgetting and allocation and mobilising and using resources
- 5) M3 represents sufficient, quality materials used in the school
- 6) M4 represents management, shared leadership, staff involvement, staff empowerment, decentralised authority, etc.

After the study of the school environment through the SWOT analysis, it will help the school to be aware if the environment is inclined towards the opportunities or threats or to have more strengths or weaknesses. The understanding of the school

environment is then the initial step of formulating strategies for the organisation or the school.

Strategy Formulation

In order to make a change, the organisation needs to conduct a SWOT analysis to find out which element(s) of the organisation is/are the strength(s) or weakness(es) and which external element(s) is/are the opportunity(ies) or threat(s) for the organisation. Once the organisation has the information collected from the SWOT analysis, the strategies can be formulated to maintain the strengths and to prevent the weaknesses.

Rungsun Maneelek (2006) explains that there are two levels of strategies formulated for schools as follows:

- 1) Main strategies which are defined to meet the needs of the analysed environments of the school.
- 2) Minor strategies or action plans which are created based on the school tasks.

The Office of National Education Commission(2002) indicates that formulating strategies for the school will help to select an operating approach which has a direction that is appropriate and aligned with the school environment, the strategies will be practical for implementation.

There are three types of strategies which include the following:

- 1) Strategies to create growth which help to expand the school operation or to increase the operation.
- 2) Experience strategies which only allow the operation by experts.
- 3) Strategies to maintain stability which require the revision of tasks that are useful and may need to be transferred to be operated by others.

In the strategy formulation, the following elements are to be reviewed:

- 1) Mission of the organisation – the tasks the organisation has to do and accomplish
- 2) Goals of the organisation – what are the outcomes of the mission

- 3) Strategic plans – the plans of actions for the organisation to follow in order to achieve the goals and mission
- 4) Policies of the organisation – guidelines for practices and decisions making

It will also help to identify which obstacles are hindering their performances and how they can improve to rid of those obstacles.

TOWS Matrix Analysis

Koontz and Weihrich (1990: 93 – 95) develops a TOWS matrix as a tool to match the analysed internal and external factors in order to develop strategies. The TOWS matrix is a matching system of SW and OT to enhance the strengths and to prevent the weaknesses. It can be displayed in the figure 6.

Figure 6: TOWS matrix to formulate strategies

Internal factors		Internal Strengths (S)	Internal Weaknesses (W)
		Management, Finance, Operation, Research and Development	
External factors			
External Opportunities (O)	PEST Competition of Markets, Risks, New Products and services	SO – Maxi-Maxi Strategies to use strengths and opportunities to enhance the organisation's success and growth.	WO – Mini-Maxi Strategies to use opportunities to reduce weaknesses
External Threats (T)	Energy Shortage	ST- Maxi-mini Strategies to use strengths to avoid or to cope with threats	WT – Mini-mini Strategies to reduce weaknesses and avoid threats

Source: Koontz and Weihrich. THE TOWS MATRIX FOR STRATEGY FORMULATION. **ESSENTIALS OF MANAGEMENT**. 5th edition. Singapore : McGraw-Hill, 1990.

The types of strategies are explained in details as follows:

1. The SO : Maxi-Maxi strategy

In this type of strategy, the strengths and opportunities are paired up to develop a proactive or aggressive strategy; the strengths are used to enhance the operation and the opportunities are used to promote the capacities to the full potential.

2. The WO : Mini-Maxi Strategy

The weaknesses and opportunities are paired up to formulate a turnaround-oriented strategy which is needed for fixing the weaknesses and use the opportunities to benefit at most in planning tasks. Some of the weaknesses may require the development of people's capacities or set guidelines for staff to practice such as the development of technology and staff development on necessary skills.

3. The ST : Maxi-Mini Strategy

The strengths and threats are paired up to formulate a diversification strategy which is designed to enable the school to use the benefit of the strengths, avoid threats and perform with a minimum loss. It helps to increase the strength of the existing strengths and to increase the strengths of non-existing aspect also. The school will use the strengths to avoid or to cope with external threats.

4. The WT : Mini-Mini Strategy

The weaknesses and threats are paired up to formulate a defensive strategy which is designed to enable the school to reduce weaknesses, avoid threats and perform with a minimum loss.

However, the internal and external environments are constantly changing; therefore, different types of TOWS Matrix analysis may be conducted to formulate various strategies that respond to the needs of the organisation. It is also necessary to prioritise the needs of the organisation. The Modified Priority Needs Index (PNI_{Modified}) (สุวิมล ว่องวาณิช, 2550) will be employed to calculate the priority of needs to identify the ranking order of strengths, weaknesses, opportunity and threats. The PNI_{Modified} formula is described below

$$PNI_{\text{Modified}} = (I-D)/D$$

I = the desired state

D = the current state

In summary, the theoretical framework of the development of strategic management is synthesised based on the conceptual studies of the strategic development conducted by Certo and Peter (1991) and Wattana Wongkietratana et al (2006), the development of management strategies that create PLCs consists of the following processes:

2.1.1.1 The SWOT analysis of the data collected from the questionnaires which describe the current state and desired state of management to create PLCs

2.1.1.2 The formulation of school management strategies using a TOWS Matrix analysis; the strategies consist of main strategies, minor strategies and procedures which include planning, implementation and evaluation

2.1.1.3 The revision of the school management strategies based on the educational experts' advice

When the schools make attempt to produce better results and to improve the teaching and learning, there are important considerations about what to improve and how. Needs and areas for improvement must be identified; the strengths and weakness in the school operation must be analysed in order for the school administrators to carefully formulate strategies that would improve the school quality to achieve the expected levels of performance. Vision, mission and goals must be clearly identified and action plan must be created, implemented and evaluated on its effectiveness. Therefore, in order for the school administrators to improve the learning quality through the development of professional learning communities, the strategic management must be formulated and set as a clear direction for the school operation.

Strategy Implementation

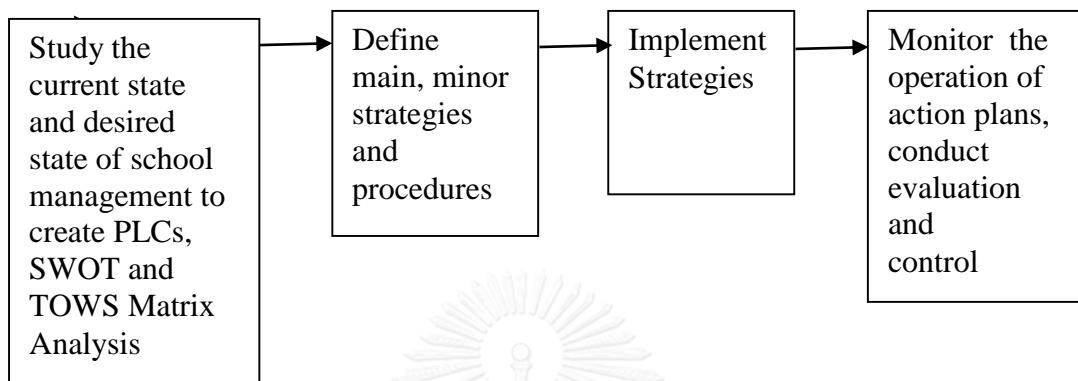
When the strategies are formulated, people in the organisation would carry out their tasks based on the strategies. Their tasks may include the operation of projects and functions. The action plans for the projects or functions should be established to clearly identify the activities, the budget needed and the process or steps of operation.

Evaluation and Control

The strategies, policies and action plans should be regularly evaluated in order to control the quality and effectiveness of the performance of the organisation. The evaluation will help members of the organisation determine if their performance move the organisation to achieve the mission, goals and objectives and if the outcomes received are as expected.

Therefore, the development of management strategies to create professional learning communities may apply the basic steps of management strategies by Wheelen and Hunger as displayed in the figure 7 below.

Figure 7: Four basic steps of management strategies for creating PLCs



2.5 Related Literature and Studies on Professional Learning Communities

2.5.1 Thai Research Studies

Narongrit Intanam (2010) conducted a research study for his dissertation for the degree of Doctor of Philosophy Programme in Educational Measurement and Evaluation on Development of a Benchmark for Building Professional Learning in Schools using a research and development approach. The objective of the research study was to create and use a benchmark to build Professional Learning Communities in schools. The research tool was a case study. The sample populations included primary schools which were divided into two groups: the first group included 2,096 informants from 185 primary schools received from two-stage random sampling; the second group included three primary schools selected as a case study. The findings of the research study related to attributes of Professional Learning Communities and included three components and nine indicators as follows:

1) The input component included two indicators: 1.1.) Academic skills and learning mechanisms which involve educators' professional standards of knowledge and capabilities and their individual and collective learning skills. 1.2) Structures and supportive conditions which promote creative, interactive activities among colleagues, the empowerment of professional learning using the technology to manage and enhance professional knowledge.

2) The process component included five indicators: 2.1) Shared norms and values which are applied to enable the management and teachers to share ownership and responsibilities with respect to technical knowledge required for the school to implement and achieve the school goals. 2.2) Shared goals focus on student learning which relates to the educators' level of commitment and practice that are linked to student learning. 2.3) Collaboration which refers to the social activities implemented by the management and teachers on various school tasks in order to achieve common benefits including the development of knowledge, concepts and the enhancement of the school performance. 2.4) De-privatised practice - the shared practice, coaching and mentoring which refers to the educators' practice with regard to openness and accepting feedback from colleagues, the revision and creativity of the practice and risk management. 2.5) Reflective dialogues on performances which refers to the conversation amongst the management and teachers about their practice, reflecting on the organisation, the equity, the justice, the autonomy and self-determination focusing on the continuous work of management and instruction to enhance student learning.

3) The output component included two indicators:

3.1) The result orientation which refers to student achievement, professional advancement and academic work.

3.2) Membership and networking which relates to professional networks at year group level, school level and the community level.

Worralluk Chukamnerd and Ekarin Sangthong (2014) conducted a study on 'Professional Learning Community of Teachers in Schools for Teacher Professional Development' based on a learner-centred approach. The objective of the study was to analyse literature relating to school teachers' perceptions of a Professional Learning Community for their professional development. The research method was content analysis of both Thai and English articles and related research documents. The findings included the background of a Professional Learning Community, its significance, definition, three main levels of the Professional Learning Community, including school level, network level and national level, and six components of the Professional Learning Community of teachers in school contexts, including shared vision, collaborative teamwork, shared leadership, professional learning and development, caring community and supportive structure.

2.5.2 Overseas Research Studies

James Herbert Gerhard (2010) conducted a research study for his dissertation for his Doctor of Education degree on 'A Study of Professional Learning Communities in International Schools in Bangkok, Thailand' using a mixed-method approach. The objective of the research study was to identify school leaders' and teachers' concepts of the development level of Professional Learning Communities and to develop an understanding of the current situations in chosen international schools in Thailand. The research tools included electronic survey questionnaires and in-person structured interviews. The sample populations were teachers and administrators from 55 English-speaking international schools in Bangkok, Thailand. Descriptive statistics were used for the analysis of the data responses and the analysis was conducted using SPSS. The results of the analysis created three main findings: the school leaders perceived a higher level of development of the Professional Learning Communities than their teaching staff; the teachers' awareness of the development level of Professional Learning Communities varied according to demographic variables, including teaching experience, gender, number of years of teaching experience and the age level of the students they taught; and the teaching staff perceived that it was administrative policy that defined the implementation of the Professional Learning Communities.

Stacy A. Kaminsky (2011) conducted a research study for her doctoral thesis for the degree of a Doctorate of Education on 'Implementing a Professional Community: A Case Study' using a qualitative case study methodology based on the theoretical framework of educational change theory (Fullan, 2007) and a study of literature related to Professional Learning Communities, reflective practice, collaboration and culture. The objective of the research study was to document the experiences of 10 elementary special educators, both individual and collective, as Professional Learning Communities were implemented within their organisations and to identify how changes made to the professional development model affect and empower staff, increase reflection, collaboration and collegiality within a special education environment during a school year, reduce teacher isolation and maximise student learning. The research tools included participant interviews and reflective documents accumulated throughout the 2010 -2011 school year. The participants were a purposefully-selected group of 10 licensed Special Education elementary educators

at a Special Education collaborative setting in South-eastern Massachusetts, New England. The findings reveal the impact that collaboration and collegiality have on the learning environment which reflects a collaborative, collegial, learner-centred and outcomes-based environment. A great number of educators and students can benefit from the establishment of a Professional Learning Community.

Mindy L. Roberts (2010) conducted a research study for her dissertation for the degree of Doctor of Education on 'Improving Student Achievement through Professional Learning Communities' using a mixed method approach. The objective of the research study was to identify how teachers perceive their personal skill levels in working collaboratively and focusing on academic results while participating in a Professional Learning Community and to determine if there was a relationship between PLC perceptions and student achievement results. The research tools included an electronic survey designed approach to collect data. The participants were 247 teachers in the Midwestern school district. Descriptive statistics were used for the analysis of the data responses. The findings reveal that teachers in the Midwestern school district perceive their strong skill levels within three themes of PLCs: (a) students learning are at high levels; (b) a collaborative culture is being created; and (c) the focus on academic results improves student achievement. The participants also identify strengths and needs of each theme: the strengths include collaboration and experience and the needs include time and data. Recommendations indicate that: (a) the continuing staff development relevant to PLC must be provided; (b) district personnel should take part in developing the PLC process; (c) PLC forms should be consistent and used across all schools; (d) accountability must be established; and (e) research-based interventions, strategies, use of student data and providing enriching activities should be emphasised during staff development.

In conclusion, the quality of teaching affects the quality of student learning and should therefore receive full attention from educators. According to the research-based studies, educators and students can acquire benefits from the establishment of Professional Learning Communities in schools; they are found to have a positive impact on student achievement and quality teacher professional development. The attributes of the Professional Learning Communities can contribute to the progress of student

learning and high achievement; in particular, the collaborative culture and collegial relationships create a positive learning environment. They can raise the quality of teaching and enable the teachers to continuously develop their teaching skills and acquire knowledge. Yet, the establishment of Professional Learning Communities in schools under the Bangkok Metropolitan Administration requires effective management strategies which include planning, implementing policy, plans, projects and activities along with evaluating these strategies and procedures.



Chapter 3

Research Methodology

Introduction

This chapter describes the research design employed in the study of Management Strategies to Create Professional Learning of Schools under the Bangkok Metropolitan Administration. The study explored the attributes of Professional Learning Communities, the management of schools under the Bangkok Metropolitan Administration relating to the curriculum design and development, the students' learning experiences, the students' assessment and evaluation and the teachers' professional development and the development of management strategies. The purpose of the study was to learn about the current and desired states of management to create professional learning communities of schools under the Bangkok Metropolitan Administration, to identify the strengths, weaknesses, opportunities and threats to the school management and to develop the suitable management strategies to be implemented to create professional learning communities of schools under the Bangkok Metropolitan Administration. The chapter explains the process of research design, the research population, the sample selection, the research instrument, the methods of data collection and data analysis.

3.1 Research Design

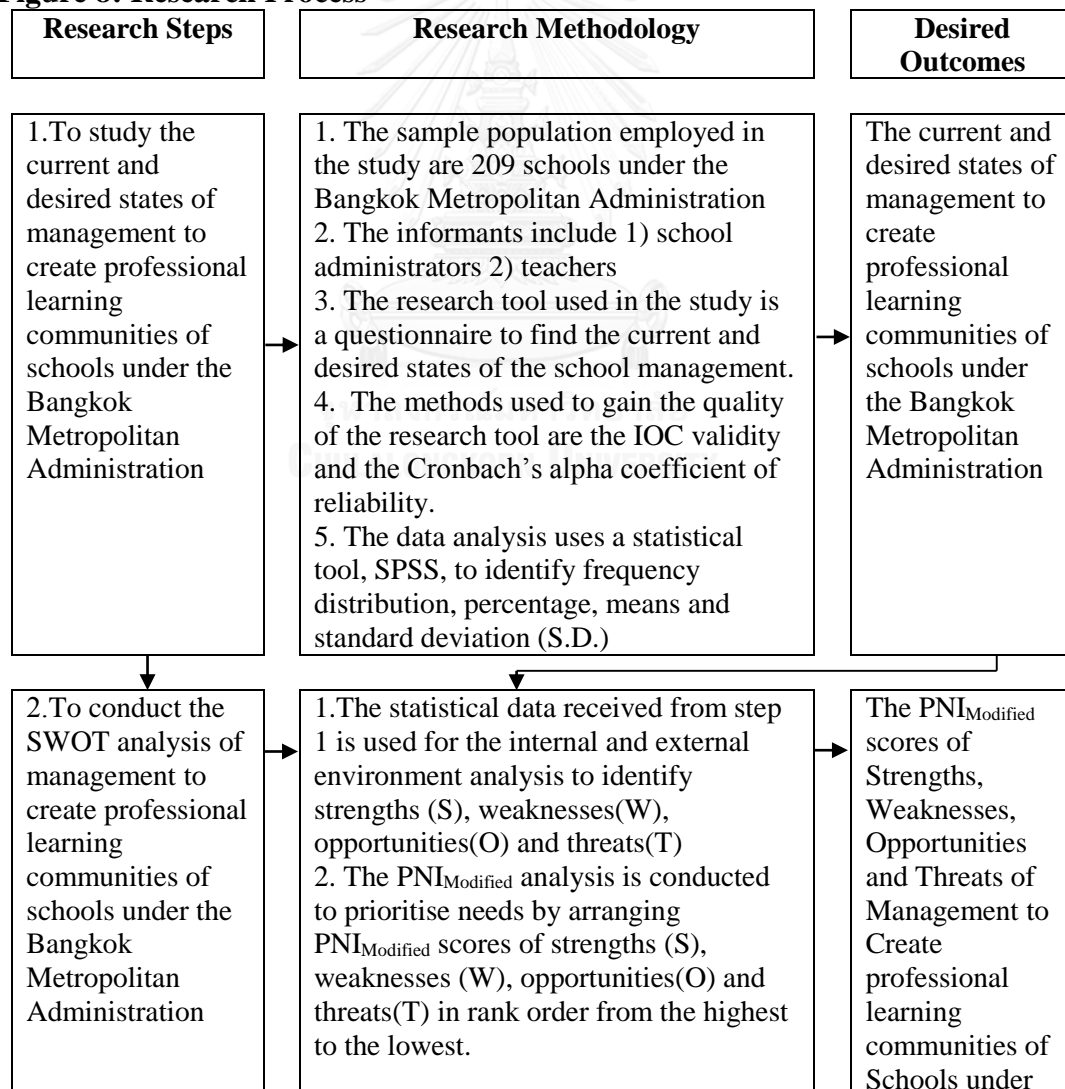
This research study on management strategies to create professional learning of schools under the Bangkok Metropolitan Administration used a mixed method design of quantitative and qualitative analysis. In the mixed method approach, the researcher poses the research inquiry and makes the assumption that gathering various types of data can provide an understanding of a research problem. *The study begins with a broad survey in order to generalise results to a population and then focuses, in a second phase, on detailed qualitative, open-ended interviews to collect detailed views from participan*(Cresswell, 2003, p.21).

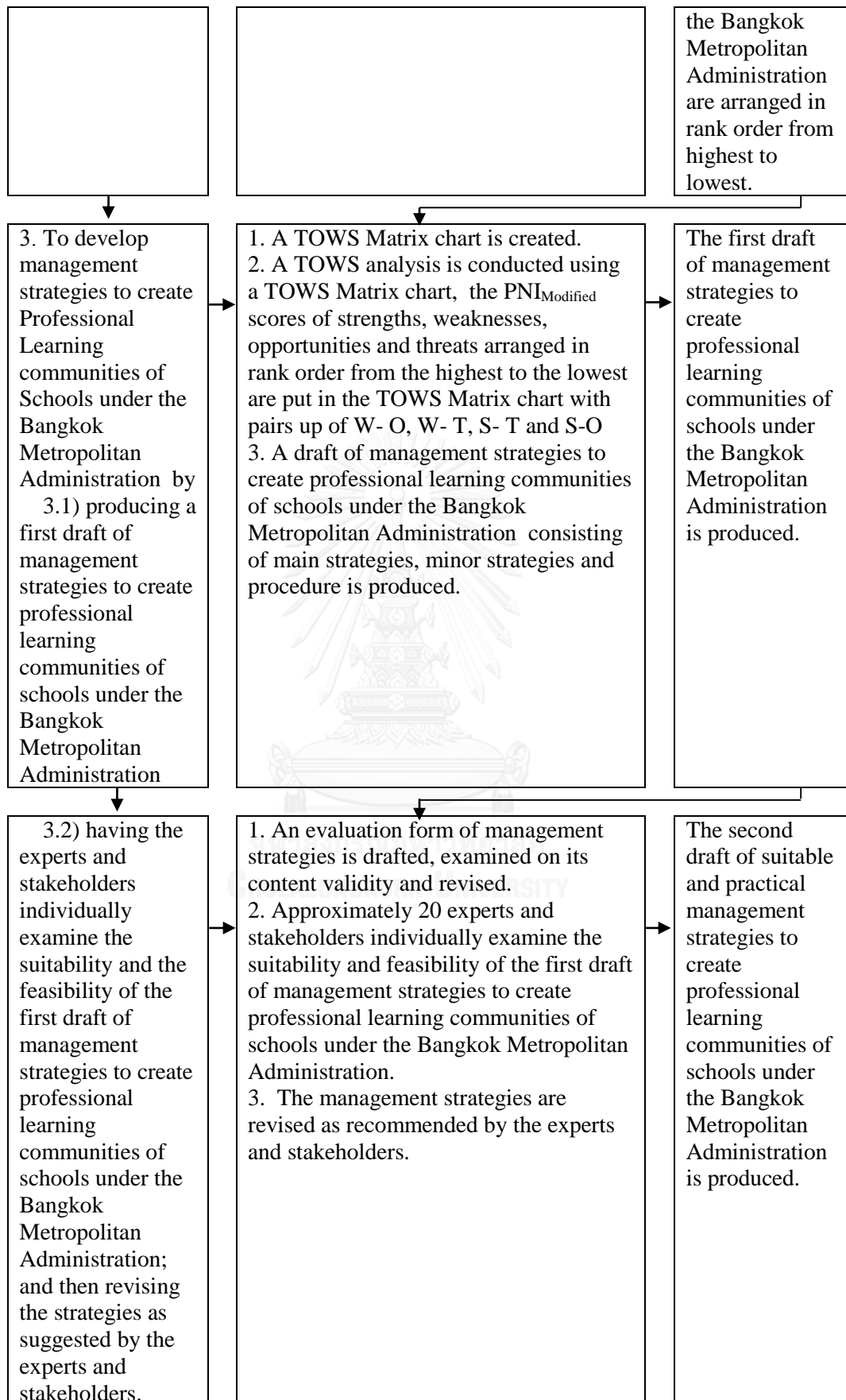
3.2 Research Process

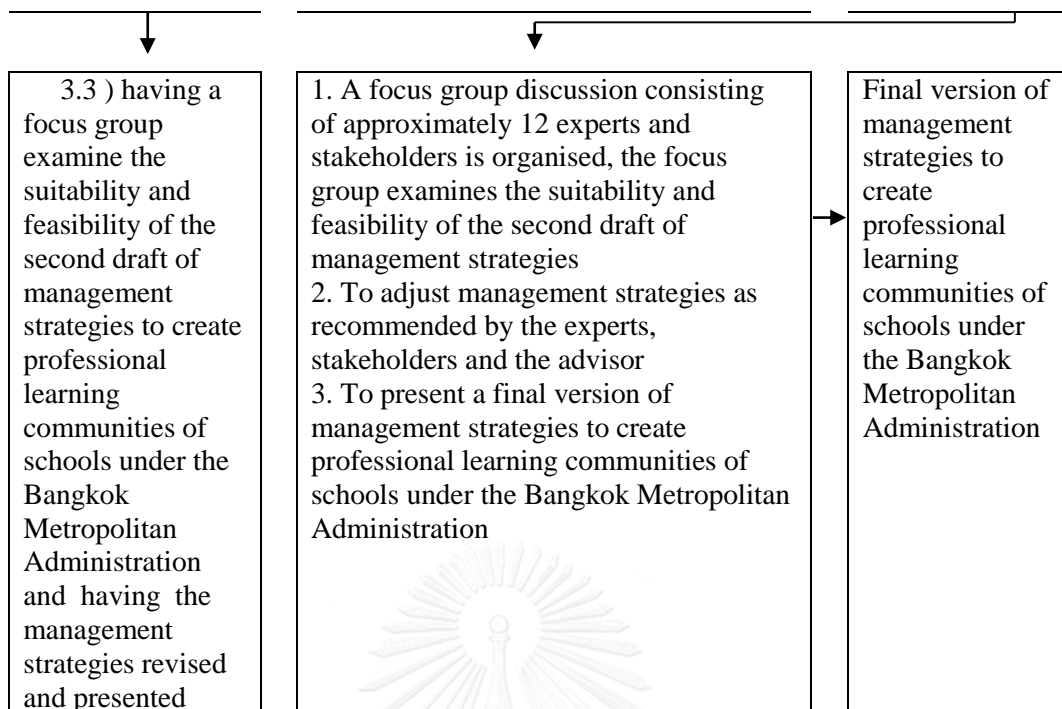
The research study has been designed based on the research purpose. The purpose of the study was 1) to study the current and desired states of management to create professional learning of schools under the Bangkok Metropolitan Administration, 2) to analyse strengths, weaknesses, opportunities and threats of management to create professional learning of schools under the Bangkok Metropolitan Administration and 3) to develop management strategies to create professional learning of schools under the Bangkok Metropolitan Administration

The research process has been designed to include three steps as appeared in the figure 8 below.

Figure 8: Research Process







According to the diagram, the research process includes the following steps:

3.2.1 To study the current and desired states of management to create professional learning of schools under the Bangkok Metropolitan Administration

The concepts, theories and related research literature are studied and developed into a conceptual research framework, the population and sample are defined and a research tool is created based on the conceptual research framework with the details as follows:

3.2.1.1 Research Population and Sample

1) The research population include 438 schools under the Bangkok Metropolitan Administration in the academic year of 2014 -2015. (Department of Education, Bangkok Metropolitan Administration, 2014-2015)

2) The sample population include 209 schools under the Bangkok Metropolitan Administration. The participants include a school administrator and a teacher from each school; the school administrators and teachers each take part in answering the survey questionnaires based on their willingness. A method of multi -stage random sampling is used for a sample selection as described below

2.1) The sample size is determined by the calculation using the Yamane formula with the confidence interval at 95% and allowable error (e) at $\pm 5\%$ (Yamane, 1973). The calculation using Taro Yamane formula is displayed below

$$n = \frac{N}{1 + Ne^2}$$

N = the population of 438 schools
 e = allowable error at 5%
 n = the sample size required

The population of 438 schools under the Bangkok Metropolitan Administration has been calculated using the Yamane formula to obtain the sample size of 209 schools.

2.2) The selection of sample schools is conducted using multi-stage random sampling to obtain the sample population which involves three steps as follows:

2.2.1) conduct a stratified random sampling of schools from six Bangkok area groups consisting of 50 districts

2.2.2) select schools from 50 districts spreading out in six Bangkok area groups

2.2.3) determine the number of schools in each Bangkok area group based on the number of the sampling schools, the total of 209 schools are sampling schools as appeared in the table 10..

Table 10 The sampling schools under the Bangkok Metropolitan Administration

Bangkok Area	District Office	Total	Sampling Schools
Central Bangkok 41 Schools	Din Daeng District Office	3	20
	Dusit District Office	9	
	Huai Khwang District Office	3	
	Pha Nakhon District Office	11	
	Phaya Thai District Office	1	
	Pom Prap Sattru Phai District Office	4	
	Ratchathewi District Office	4	
	Ratchathewi District Office	3	
	Samphanthawong District Office	3	
	Wang Thonglang District Office	3	
	Total	41	
South Bangkok 59 Schools	Bang Kho Laem District Office	7	28
	Bang Na District Office	7	
	Bang Rak District Office	5	
	Khlong Toei District Office	4	
	Pathum Wan District Office	8	
	Phra Khanong District Office	4	
	Sathon District Office	2	
	Suan Luang District Office	8	
	Vadhana District Office	8	
	Yan Nawa District Office	6	
	Total	59	
North Bangkok 46 Schools	Bang Khen District Office	5	22
	Bang Sue District Office	7	
	Chatuchak District Office	7	
	Donmeang District Office	6	
	Lat Phrao District Office	6	
	Lak Si District Office	6	
	Sai Mai District Office	9	
		Total	
East Bangkok 131 Schools	Bang Kapi District Office	11	63
	Bueng Kum District Office	8	
	Khan Na Yao District Office	2	
	Khlong Sam Wa District Office	18	
	Lat Krabang District Office	20	
	Min Buri District Office	13	
	Nong Chok District Office	37	
	Prawet District Office	16	
	Saphan Sung District Office	6	
	Total	131	
Bangkok Area	District Office	Total	Sampling Schools

North Krungthon 91 Schools	Bang Phlat District Office	11	43
	Bangkok Noi District Office	15	
	Bankok Yai District Office	6	
	Chom Thong District Office	11	
	Khlong San District Office	8	
	Taling Chan District Office	16	
	Thawi Watthana District Office	7	
	Thon Buri District Office	17	
Total	91		
South Krungthon 70 Schools	Bang Bon District Office	9	33
	Bang Khae District Office Nong	12	
	Bang Khun Thian District Office	16	
	Nong Khaem District Office	6	
	Phasi Charoen District Office	13	
	Rat Burana District Office	6	
	Thung Khur District Office	8	
	Total	70	
Total schools in all districts	438	209	

3.2.1.2 Research Tool

The research tool employed in this study is a questionnaire; the process of designing the research tool includes the following:

1) To clearly define the objective of the questionnaire based on the purpose of the research study

2) To create the questionnaire consisting of questions designed based on the conceptual framework derived from the review of concepts, theories and relevant research literature; the step of designing questions includes the following:

2.1) draft questions based on the conceptual framework and the operational definition of terms

2.2) have a doctoral dissertation advisor examine the content validity of questions, the language usage in the questionnaire and the breadth of coverage based on the conceptual framework and the operational definition of terms

2.3) revise the questions based on the advice of the doctoral dissertation advisor

2.4) create a questionnaire consisting of questions inquiring about the current and desired states of management to create professional learning communities

of schools under the Bangkok Metropolitan Administration, the data is collected from school administrators and teachers.

There are three parts of questions in the questionnaire as follows:

Part 1: questions about the participant's demographic data

- The participant can use a checklist to answer questions about his/her gender, age, the highest education level, the current post and length of the current post.

Part 2: questions about the current and desired states of management to create professional learning communities of schools under the Bangkok Metropolitan Administration

The participant can answer questions by selecting a number from a rating scale of 1 to 5; each number represents the level of practices.

The rating scale of 1 to 5 in the current state refers to the level of practice as follows:

- 5 = the highest level of practice in the current state
- 4 = the high level of practice in the current state
- 3 = the middle level of practice in the current state
- 2 = the low level of practice in the current state
- 1 = the lowest level of practice in the current state

The rating scale of 1 to 5 in the desired state refers to the level of need for the practice as follows:

- 5 = the highest level of need for the practice
- 4 = the high level of need for the practice
- 3 = the middle level of need for the practice
- 2 = the low level of need for the practice
- 1 = the lowest level of need for the practice

Part 3: additional comments or recommendations

The participant can give additional comments and/or recommendation about management to create professional learning of schools under the Bangkok Metropolitan Administration; the questions are open-ended.

3) To examine the validity of the questionnaire

3.1) The doctoral dissertation advisor will examine the developed questionnaire on its content validity and clear usage of language so that the questionnaire becomes suitable for the research study and has breadth of content coverage.

3.2) The questionnaire is revised based on the dissertation advisor's recommendation.

3.3) The revised questionnaire is examined by three specialists on its content validity and suitability. The selected specialists are those who possess knowledge or expertise on the school management and the professional learning community in the schools.

Table 11 Specialists are classified based on their expertise.

Specialists	Expertise			
	Academic	School Management	Research and Measurement	Professional Learning Community
First Person	✓	✓	✓	✓
Second Person	✓		✓	✓
Third Person	✓		✓	✓

3.4) The results of the specialists' examination of the questionnaire are computed using Rovinelli's and Hamblenton's formula of the Index of Consistency (IOC) (cited by Sirichai Kanchanawasri, 2009) to identify its content validity as follows:

$$IOC = \frac{\sum R}{N}$$

- IOC = the value of the index of consistency between -1 to +1
 $\sum R$ = the total scores of the specialists' opinions
 N = the total number of the specialists

3.5) The appropriate questions with suitable content validity based on the IOC value are selected; the IOC value of each question should be higher than 0.50. (ศิริชัย กาญจนวาสี, 2552)). Therefore, each selected question should have the IOC value between 0.60 – 1.00 (Appendix B)

3.6) The language used on the questionnaire is revised based on the specialists' recommendations and examined by the dissertation advisor prior to sending to the trial survey group.

4) To examine the reliability of the questionnaire

4.1) After the examination of its content validity, the questionnaire together with the letter of cooperation for tryout of the research tool from the Graduate School, Chulalongkorn University are sent to 15 schools under the Bangkok Metropolitan Administration which do not belong to the sample schools. The informants include 15 school administrators and 15 teachers, the total of 30 people.

4.2) The Cronbach's Alpha Coefficient formula is used to compute the data collected to identify the reliability value of the questions; the alpha reliability coefficients are 0.95 for the questions inquiring about the current state and 0.97 for those inquiring about the desired state. Therefore, the questionnaire appears to have a high reliability value and can be used to collect data.

3.2.1.3 Data Collection

The letter of cooperation for data collection from the Graduate School, Chulalongkorn University together with two copies of the questionnaires are sent to 209 administrators of schools under the Bangkok Metropolitan Administration via post.

3.2.1.4 Data Analysis

The data analysis of the questionnaire consists of two parts as follows:

Part 1: The informant's basic information is analysed using the descriptive statistics to identify frequency distribution and percentage.

Part 2: The information on the current and desired states of management of schools under the Bangkok Metropolitan Administration is analysed using a statistical tool, SPSS for Windows, to identify means and standard deviation (S.D.). The analysis is conducted to find the \bar{X} and S.D. of the overall environment, the internal environment and the external environment respectively. The criteria to define the range of the mean scores are described as follows:

4.50 - 5.00 = the highest level of practice or needs for practice

3.50 - 4.49 = the high level of practice or needs for practice

2.50 - 3.49 = the middle level of practice or needs for practice

1.50 - 2.49 = the low level of practice or needs for practice

1.00 - 1.49 = the lowest level of practice or needs for practice

The difference between the current state and the desired state of the management of schools under the Bangkok Metropolitan Administration should be compared in order to evaluate the need of the school management. The statistical data of the current and desired states of the school management is used for calculating the Modified Priority Need Index ($PNI_{Modified}$) in order to prioritise the need. The $PNI_{Modified}$ technique (ศุวิมล ว่องวานิช, 2550) used in the computation is described below:

$$PNI_{Modified} = (I-D)/D$$

I = The desired state of management of schools under the Bangkok Metropolitan Administration

D = The current state of management of schools under the Bangkok Metropolitan Administration

3.2.2 Analysis of Strengths, Weaknesses, Opportunities and Threats of Management of Schools under the Bangkok Metropolitan Administration

3.2.2.1 The SWOT analysis is conducted using the $PNI_{Modified}$ statistics; the steps are described as follows:

1) The strengths, weaknesses, opportunities and threats of management of schools under the Bangkok Metropolitan Administration are identified using a criterion-referenced approach as follows:

1.1) The analysis of the internal environment

The statistical data obtained on the questionnaire relating to the professional learning communities is arranged in two $PNI_{Modified}$ groups.

The highest value of the $PNI_{Modified}$ is subtracted by the lowest value of the $PNI_{Modified}$; the difference of the subtraction divided by two is the mid interval value, the $PNI_{Modified}$ values which are higher than the mid interval value are defined as weaknesses and the those which are lower than the mid interval value are defined as strengths.

1.2) The analysis of the external environment

The statistical data obtained on the questionnaire relating to the political, economic, social and technological aspects is arranged in two $PNI_{Modified}$ groups.

The highest value of the $PNI_{Modified}$ is subtracted by the lowest value of the $PNI_{Modified}$; the difference of the subtraction divided by two determines the mid interval value, the $PNI_{Modified}$ values which are higher than the mid interval value are defined as threats and those which are lower than the mid interval value are defined as opportunities.

3.2.3 To develop management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration

The research process includes the following:

3.2.3.1 The steps to produce the first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration are as follows:

1) Create a TOWS Matrix chart

2) Conduct a TOWS analysis using the TOWS Matrix chart and put the $PNI_{Modified}$ of strengths, weaknesses, opportunities and threats arranged in a ranking order from the highest to the lowest into the TOWS Matrix grid.

3) Match the internal environment with the external environment to formulate strategies as follows:

3.1) Pair the weaknesses and the threats to formulate a defensive strategy which is designed to enable the school to reduce weaknesses, avoid threats and perform with a minimum loss.

3.2) Pair the weaknesses and the opportunities to formulate a turnaround-oriented strategy which is designed to enable the school to fix the weaknesses and use the opportunities to gain the full benefits

3.3) Pair the strengths and the threats to formulate a diversification strategy which is designed to enable the school to use the benefit of the strengths, avoid threats and perform with a minimum loss

3.4) Pair the strengths and the opportunities to formulate an aggressive strategy which is designed to enable the school to use the strengths to create or promote and using the opportunities to the full benefit.

4) Prepare the first draft of management strategies to create professional learning of schools under the Bangkok Metropolitan Administration consisting of main strategies, minor strategies and procedure.

3.2.3.2 The suitability and feasibility of the first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is individually examined by the experts and stakeholders. The details are as follows:

1) Informants

The informants of the research study include approximately 20 experts and stakeholders consisting of school administrators, teachers and academics who have knowledge, experience and have produced academic work relating to the school management and professional learning communities. The purposive sampling technique is used to select the informants. (Appendix C)

The informants are divided into 4 main groups as follows:

Group 1: 2 Educational Policy Makers

Group 2: 8 Educators of both higher education and basic education levels

Group 3: 6 School Administrators

Group 4: 4 BMA School Teachers

2) Research Tool

The evaluation form of management strategies is a research tool which has been created as follows:

2.1) The design of the evaluation form of management strategies is derived from the concept of policy evaluation (Owen (1993) and the advice of strategic planning experts.

2.2) The draft of the evaluation form of management strategies is produced to cover management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration. The suitability and feasibility of the management strategies are examined. The evaluation form of management strategies includes four parts as follows:

Part 1: Informant's demographic data

Part 2: Opinions and comments about the suitability and feasibility of main strategies and minor strategies of management to create professional learning communities of schools under the Bangkok Metropolitan Administration

Part 3: Opinions and comments about the suitability and feasibility of the procedures to implement strategies of management to create professional learning communities of schools under the Bangkok Metropolitan Administration

2.3) The content validity of the evaluation form of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is examined by the dissertation advisor.

2.4) The evaluation form of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is revised based on the dissertation advisor's recommendations and sent to the experts and stakeholders to collect the information.

3) The suitability and feasibility of the first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is examined by individual experts; the process includes the following:

3.1) The first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is sent to experts and stakeholders to individually examine its suitability and the feasibility of the strategies

3.2) The evaluation form is submitted to and collected from examiners, the experts and stakeholders) via post.

3.3) The result of the examination of the suitability and the feasibility of management strategies is statistically analysed using frequency distribution, percentage and content analysis.

3.2.3.3 The first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is revised based on the experts' and stakeholders' recommendations and presented to the dissertation advisor for a further review; the second draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is developed.

3.2.3.4 The suitability and the feasibility of the second draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is examined by the focus group of experts and stakeholders, the details are as follows:

1) Informants

The informants include the experts and stakeholders who possess knowledge and experience or have produced academic work in educational administration, school management and those who have knowledge and abilities relating to professional learning communities. The focus group of 12 people is selected by using a purposive sampling technique. (Appendix C)

2) The process of the examination on the suitability and the feasibility of the second draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration includes the following:

2.1) A focus group of 15 experts and stakeholders are invited for a group discussion

2.2) The second draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is presented to the focus group.

2.3) The focus group review the second draft and discuss the suitability and the feasibility of implementing management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration.

3.2.3.5 The management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is revised for a complete, final version.

1) The second draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is revised based on the recommendations of the experts, stakeholders and the dissertation advisor and developed further to become a complete version.

2) The management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration are complete and presented.

Chapter 4

Results of Data Analysis

In this chapter the researcher presents the results of the data analysis of the research study on “Management Strategies to Create Professional Learning Communities(PLCs) of Schools under the Bangkok Metropolitan Administration(BMA)”. A mixed method design of quantitative and qualitative analysis is employed. The research population include 438 schools under the BMA. The informants include one school administrator and one teacher from each school. The research tool used to collect data is a survey questionnaire and an evaluation form of management strategies to create PLCs of schools under the BMA.

The purpose of the study was to learn about the current and desired states of management to create PLCs of schools under the BMA, to identify the strengths, weaknesses, opportunities and threats to the school management and to develop the suitable management strategies to be implemented to create PLCs of schools under the BMA.

The descriptive statistics is used through the statistical package for the Social Sciences (SPSS) software to analyse the quantitative data which describes frequency distribution, percentage, means , standard deviation (S.D.) and PNI modified index. The content analysis is used on the qualitative study.

The results of data analysis are presented as follows:

4.1 The current state and desired state of school management to created PLCs of schools under the BMA

4.2 Strength, weakness, opportunities and threats of the school management to create PLCs of schools under the BMA

4.3 Development of management strategies to create PLCs of schools under the BMA

4.3.1 Formulate management strategies to create PLCs of schools under the BMA as the first draft

4.3.2 Examine the suitability and feasibility of the management strategies formulated on the first draft.

4.3.3 Revise the first draft and develop the second draft

4.3.4 Examine the suitability and feasibility of the management strategies formulated on the second draft

4.3.5 Revise the second draft and develop the final, complete version of management strategies to create PLCs of schools under the BMA.

4.1 The current state and desired states of management to create professional learning communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA)

The details of each part are as follows:

4.1 The current state and desired states of management to create professional learning communities(PLCs) of schools under the Bangkok Metropolitan Administration(BMA)

The results of data analysis on the current state and desired states of management to create PLCs of schools under the BMA include three parts:

4.1.1 Demographic data of sample schools and informants

4.1.2 The current state and desired states of management to create PLCs of schools under the BMA obtained from the analysis of the internal environment

4.1.3 The current and desired states of management to create PLCs of schools under the BMA obtained from the analysis of the external environment.

The details of each part are as follows:

4.1.1 Demographic data of sample schools and informants

Table 12: Number and percentage of returned questionnaires from sample schools under the Bangkok Metropolitan Administration in the academic year 2014 -2015 classified by educational areas in Bangkok where the schools are located

(N= 205)

Item	Educational Area Group in Bangkok	Number of Schools the Questionnaires sent to	Number of Schools returned the Questionnaires	Percentage
1	North Bangkok	22	22	100.00
2	Central Bangkok	20	20	100.00
3	South Bangkok	28	26	92.86
4	East Bangkok	63	62	98.41
5	North Thonburi	43	42	97.67
6	South Thonburi	33	33	100.00
Total		209	205	98.09

The table 13 below provides the number and percentage of the returned questionnaires from sample schools under the Bangkok Metropolitan Administration which are 98.09 %.

Table 13 Number and Percentage of Informants

Demographic Data		Informants	School administrators (N=205)	Teachers (N=205)	Total (N=410)	
					Number	Percentage
Gender	Male		62	44	106	25.90
	Female		143	161	304	74.10
Age	Below 30		2	15	17	4.10
	31-35		17	50	67	16.30
	36- 40		37	47	84	20.50
	41-45		31	30	61	14.90
	46-50		29	30	59	14.40
	51-55		53	21	74	18.00
	56 or above		36	12	48	11.70
Highest Level of Education	Below Bachelor's Degree		0	0	0	0
	Bachelor's Degree		7	103	110	26.80
	Master's Degree		192	102	294	71.70
	Doctorate Degree		6	0	6	1.50
Length of time in current position	Below 10 years		132	97	229	55.90
	11-20 years		46	71	117	28.50
	21-30 years		18	21	39	9.50
	30 years or above		9	16	25	6.10

The table 13 shows that there are 410 informants who are 205 school administrators and 205 teachers. 74.10 % of the informants are female and 25.90% are male. The biggest group of the informants, 84 people, aged between 36-40 years old, is 20.50% of all the informants. The other groups of the informants are 51-55 years old , 31-35 years old , 41-45 years old , 46-50 years old, 56 years old or above and 30 years old or below, respectively. 294 people or 71.70% of all the informants have a Master's Degree as their highest level of education; the others have Bachelor's Degree and Doctoral Degree respectively. The biggest group of the informants whose length of time in the current position is less than 10 years are 229 people or 55.90% of all the informants. The others have 11 – 20 years, 21-30 years and more than 30 years respectively as their length of time in the current position.

4.1.2 The current state and desired states of management to create professional learning communities obtained from the analysis of the internal environment

The current state and desired states of management to create professional learning communities(PLCs) of schools under the Bangkok Metropolitan Administration(BMA) obtained from the analysis of the internal environment are presented in the table with the information included. The analysis provides an overall picture followed by the analysis of each aspect as follows:

Table 14 The current and desired states of management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the overall analysis of the internal environment

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State				Desired State			
	\bar{X}	S.D	Level	Order	\bar{X}	S.D.	Level	Order
1. Shared vision, mission and goals	4.18	.62	high	2	4.71	.44	High-est	2
2. Shared Leadership and shared decision-making	4.31	.67	high	1	4.72	.47	High-est	1
3. Collective learning through inquiries, reflective dialogues and application of learning	3.99	.65	high	5	4.62	.51	High-est	5
3.1 Collective learning through inquiries, reflective dialogues about students' learning	3.97	.71	high	(2)	4.61	.54	High-est	(1)
3.2 Application of Learning	4.00	.67	high	(1)	4.64	.54	High-est	(2)
4. Collaboration and Shared Practice focusing on improving student achievement	4.04	.67	high	4	4.69	.45	High-est	4
4.1 Collaborative work, coaching and mentoring	4.06	.74	high	(1)	4.72	.47	High-est	(1)
4.2 Lesson Observation and Giving Feedback to Improve Teaching and Learning	4.02	.71	high	(2)	4.66	.51	High-est	(2)
5. Supportive Conditions	4.15	.64	high	3	4.70	.46	High-est	3
5.1 Structural Conditions	4.22	.71	high	(1)	4.69	.50	High-est	(2)
5.2 People's Capacities	4.08	.68	high	(2)	4.70	.49	High-est	(1)
Total Mean Scores	4.10	.58	high		4.69	.42	High-est	

Based on the analysis of the internal environment on the table 14, the findings indicate that an overall picture of the current state of management to create professional learning communities(PLCs) of schools under the Bangkok Metropolitan Administration(BMA) is at a high level (\bar{X} = 4.10, S.D = .58). When considering each

aspect, the shared leadership and shared decision-making has the highest mean value ($\bar{X}= 4.31$, S.D = .67), then the shared vision, mission and goals ($\bar{X}= 4.18$, S.D = .62), the supportive conditions ($\bar{X}= 4.15$, S.D = .64), the collaboration, shared practice ($\bar{X}= 4.04$, S.D = .67) and the collective learning through inquiries, reflective dialogues and application of learning ($\bar{X}= 3.99$, S.D = .65), respectively.

Based on the analysis of the internal environment, the findings indicate that an overall picture of the desirable state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a highest level ($\bar{X}= 4.69$, S.D = .42). When considering each aspect, the shared leadership and shared decision-making has the highest mean value ($\bar{X}= 4.72$, S.D = .47), then the shared vision, mission and goals ($\bar{X}= 4.71$, S.D = .44), the supportive conditions ($\bar{X}= 4.70$, S.D = .46), the collaboration and shared practice focusing on improving student achievement ($\bar{X}= 4.69$, S.D = .45) and the collective learning through inquiries, reflective dialogues and application of learning ($\bar{X}= 4.62$, S.D = .51) respectively.

4.1.3 The current state and desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the analysis of the external environment

The current state and desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the analysis of the external environment are presented in the table 15 with the information included. The analysis provides an overall picture followed by the analysis of each aspect as follows:

Table 15 The current state and desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the overall analysis of the external environment

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	The current state				The desired state			
	\bar{X}	S.D.	Level	Order	\bar{X}	S.D.	Level	Order
1. Political and Government Policy Factor (P)	3.74	.66	Moderate	3	4.45	.59	High	4
2. Economic Factor(E)	3.72	.65	Moderate	4	4.47	.57	High	3
3. Socio-cultural Factor (S)	3.78	.64	Moderate	2	4.49	.56	High	2
4. Technological Factor (T)	3.91	.66	Moderate	1	4.57	.52	Highest	1
Total Mean Scores	3.79	.63	Moderate		4.49	.54	High	

From the analysis of the external environment, the findings indicate that an overall picture of the current state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a moderate level ($\bar{X}= 3.79$, S.D = .63). When considering each aspect, the technological factor has a highest mean value ($\bar{X}= 3.91$, S.D = .66), then the socio-cultural aspect ($\bar{X}= 3.78$, S.D = .64), the political and government policy ($\bar{X}= 3.74$, S.D = .66) and the economic aspect ($\bar{X}= 3.72$, S.D = .65) respectively.

From the analysis of the external environment, the findings indicate that an overall picture of the desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a high level ($\bar{X}= 4.49$, S.D = .54). When considering each aspect, the technological factor has a highest mean value ($\bar{X}= 4.57$, S.D = .52), then the socio-cultural aspect ($\bar{X}= 4.49$, S.D = .56), the economic aspect ($\bar{X}= 4.47$, S.D = .57) and the political and government policy ($\bar{X}= 4.45$, S.D = .59) respectively.

Table 16 The current state and desired state of each aspect of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the analysis of the external environment

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current state				Desired state			
	\bar{X}	S.D.	Level	Order	\bar{X}	S.D.	Level	Order
1. Political and Government Policy (P)	3.74	.66	Moderate	3	4.45	.59	High	4
1. Shared Vision, Mission and Goals	3.79	.83	Moderate	1	4.42	.77	High	4
2. Shared Leadership and Shared Decision-making	3.71	.81	Moderate	4	4.41	.75	High	5
3. Collective Learning through Inquiries, Reflective Dialogues and Application of Learning	3.72	.76	Moderate	3	4.43	.68	High	3
3.1 Collective learning through inquiries and reflective dialogues on teaching and learning	3.69	.83	Moderate	(2)	4.43	.76	High	(1)
3.2 Application of learning	3.74	.81	Moderate	(1)	4.42	.72	High	(2)
4. Collaboration and Shared Practice Focusing on Improving Student Achievement	3.70	.75	Moderate	5	4.47	.66	High	2
4.1 Collaborative work, coaching and mentoring	3.69	.83	Moderate	(2)	4.46	.73	High	(2)
4.2 Class observation and giving feedbacks to improve teaching, learning and student achievement	3.70	.82	Moderate	(1)	4.47	.69	High	(1)
5. Supportive Conditions	3.78	.72	Moderate	2	4.49	.62	High	1
5.1 Structural Conditions	3.79	.79	Moderate	(1)	4.44	.72	High	(2)
5.2 People's Capacities	3.78	.78	Moderate	(2)	4.54	.65	High	(1)
2. Economic (E)	3.72	.65	Moderate	4	4.47	.57	High	3
1. Shared Vision, Mission and Goals	3.70	.77	Moderate	4	4.44	.72	High	4
2. Shared Leadership and Shared Decision-making	3.73	.78	Moderate	2	4.45	.72	High	3
3. Collective Learning through Inquiries, Reflective Dialogues and Application of Learning	3.71	.73	Moderate	3	4.43	.65	High	5

Table 16

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current state				Desired state			
	\bar{X}	S.D.	Level	Order	\bar{X}	S.D.	Level	Order
3.1 Collective learning through inquiries and reflective dialogues on teaching and learning	3.71	.80	Moderate	(1)	4.43	.71	High	(2)
3.2 Application of learning	3.70	.78	Moderate	(2)	4.45	.69	High	(1)
4. Collaboration and Shared Practice Focusing on Improving Student Achievement	3.69	.75	Moderate	5	4.49	.63	High	2
4.1 Collaborative work, coaching and mentoring	3.70	.84	Moderate	(1)	4.48	.68	High	(2)
4.2 Class observation and giving feedbacks to improve teaching, learning and student achievement	3.68	.80	Moderate	(2)	4.50	.67	High	(1)
5. Supportive Conditions	3.77	.71	Moderate	1	4.50	.62	Highest	1
5.1 Structural Conditions	3.78	.77	Moderate	(1)	4.47	.67	High	(2)
5.2 People's Capacities	3.77	.79	Moderate	(2)	4.53	.68	High	(1)
3. Socio-cultural (S)	3.78	.64	Moderate	2	4.49	.56	High	2
1. Shared Vision, Mission and Goals	3.78	.78	Moderate	3	4.48	.67	High	3
2. Shared Leadership and Shared Decision-making	3.80	.78	Moderate	2	4.47	.70	High	4
3. Collective Learning through Inquiries, Reflective Dialogues and Application of Learning	3.75	.74	Moderate	5	4.46	.64	High	5
3.1 Collective learning through inquiries and reflective dialogues on teaching and learning	3.76	.81	Moderate	(1)	4.48	.70	High	(1)
3.2 Application of learning	3.74	.81	Moderate	(2)	4.44	.69	High	(2)
4. Collaboration and Shared Practice Focusing on Improving Student Achievement	3.76	.72	Moderate	4	4.50	.62	มากที่สุด	2
4.1 Collaborative work, coaching and mentoring	3.74	.80	Moderate	(2)	4.50	.66	มากที่สุด	(1)
4.2 Class observation and giving feedbacks to improve teaching, learning and student achievement	3.77	.78	Moderate	(1)	4.49	.67	High	(2)
5. Supportive Conditions	3.81	.70	Moderate	1	4.51	.61	Highest	1
5.1 Structural Conditions	3.80	.77	Moderate	(2)	4.48	.66	High	(2)
5.2 People's Capacities	3.82	.75	Moderate	(1)	4.55	.66	Highest	(1)

Table 16

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current state				Desired state			
	\bar{X}	S.D.	Level	Order	\bar{X}	S.D.	Level	Order
4. Technological (T)	3.91	.66	Moderate	1	4.57	.51	Highest	1
1. Shared Vision, Mission and Goals	4.00	.80	Moderate	1	4.62	.58	Highest	1
2. Shared Leadership and Shared Decision-making	3.95	.81	Moderate	2	4.55	.66	Highest	4
3. Collective Learning through Inquiries, Reflective Dialogues and Application of Learning	3.88	.74	Moderate	4	4.54	.60	Highest	5
3.1 Collective learning through inquiries and reflective dialogues on teaching and learning	3.87	.81	Moderate	(2)	4.53	.65	Highest	(2)
3.2 Application of learning	3.89	.79	Moderate	(1)	4.54	.67	Highest	(1)
4. Collaboration and Shared Practice Focusing on Improving Student Achievement	3.88	.75	Moderate	5	4.59	.57	Highest	2
4.1 Collaborative work, coaching and mentoring	3.90	.81	Moderate	(1)	4.61	.61	Highest	(1)
4.2 Class observation and giving feedbacks to improve teaching, learning and student achievement	3.86	.81	Moderate	(2)	4.57	.63	Highest	(2)
5. Supportive Conditions	3.91	.71	Moderate	3	4.56	.58	Highest	3
5.1 Structural Conditions	3.91	.80	Moderate	(2)	4.52	.65	Highest	(2)
5.2 People's Capacities	3.92	.74	Moderate	(1)	4.60	.62	Highest	(1)
Total Mean Scores	3.79	.63	Moderate		4.49	.54	High	

From the analysis of the external environment, the findings reveal an overall picture of the current state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a moderate level (\bar{X} = 3.79, S.D = .63). When considering each aspect, the technological factor has a highest mean value (\bar{X} = 3.91, S.D = .66), then the socio-cultural aspect (\bar{X} = 3.78, S.D = .64), the political and government policy (\bar{X} = 3.74, S.D = .66) and the economic aspect (\bar{X} = 3.72, S.D = .65) respectively.

From the analysis of the external environment, the findings reveal an overall picture of the desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a high level (\bar{X} = 4.49,

S.D = .54). When considering each aspect, the technological factor has a highest mean value (\bar{X} = 4.57, S.D = .51), then the socio-cultural aspect (\bar{X} = 4.49, S.D = .56), the economic aspect (\bar{X} = 4.47, S.D = .57) and the political and government policy (\bar{X} = 4.45, S.D = .59) respectively.

4.2 Strengths, Weaknesses, Opportunities and Threats of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration

The results of the data analysis to identify strengths, weaknesses, opportunities and threats of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration include two parts as follows:

4.2.1 The analysis of the internal environment of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration

4.2.2 The analysis of the external environment of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration

The details of each part are as follows:

4.2.1 The analysis of the internal environment of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration

The researcher conducted an analysis of the internal environment employing the data collected in the questionnaires and organised the priority of needs of the data using the $PNI_{Modified}$. The highest $PNI_{Modified}$ is subtracted by the lowest $PNI_{Modified}$ and divided by two; the difference which is the mid interval value is used to identify the two groups, the high $PNI_{Modified}$ and the low $PNI_{Modified}$. The aspects obtaining the high $PNI_{Modified}$ are identified as the weaknesses of the management to create professional learning communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA) and therefore the strategies to reduce the weaknesses will be formulated. Those obtaining the low $PNI_{Modified}$ are identified as the strengths of

the management to create PLCs of schools under the BMA and therefore the strategies to enhance the strengths will be formulated. The information relating to the strengths and weaknesses gained from employing the $PNI_{Modified}$ will be put in the first draft of management strategies.

The researcher conducted an analysis of the internal environment employing the data collected in the questionnaires and organised the priority of needs of the data using the $PNI_{Modified}$. The highest $PNI_{Modified}$ is subtracted by the lowest $PNI_{Modified}$ and divided by two; the difference which is the mid interval value is used to identify the two groups, the high $PNI_{Modified}$ and the low $PNI_{Modified}$.

The $PNI_{Modified}$ of each attribute of the PLC obtained from the overall analysis of the internal environment and organised in two groups of high and low $PNI_{Modified}$ are displayed as follows:

$$[(0.163 - 0.095) \div 2 = 0.034]$$

The mid interval value is used to organise the two $PNI_{Modified}$ groups as follows:

The high $PNI_{Modified}$ values are 0.163 - 0.129

The low $PNI_{Modified}$ values are 0.095 - 0.128

The results of the $PNI_{Modified}$ in an overall picture are displayed in the table 17 below.

Table 17 The PNI_{Modified} of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the overall analysis of the internal environment

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		PNI _{Modified}		Results of the environment analysis
	\bar{X}	S.D.	\bar{X}	S.D.	PNI _{Modified}	Group Identified	
1. Shared Vision, Mission and Goals	4.18	.62	4.71	.44	0.127	Low	Strength
2. Shared Leadership and Shared Decision-making	4.31	.67	4.72	.47	0.095	Low	Strength
3. Collective Learning through Inquiries, Reflective Dialogues and Application of Learning	3.99	.65	4.62	.51	0.158	High	Weakness
3.1 Collective learning through inquiries and reflective dialogues on teaching and learning	3.97	.71	4.61	.54	0.161	High	Weakness
3.2 Application of learning	4.00	.67	4.64	.54	0.160	High	Weakness
4. Collaboration and Shared Practice Focusing on Improving Student Achievement	4.04	.67	4.69	.45	0.161	High	Weakness
4.1 Collaborative work, coaching and mentoring	4.06	.74	4.72	.47	0.163	High	Weakness
4.2 Class observation and giving feedbacks to improve teaching, learning and student achievement	4.02	.71	4.66	.51	0.159	High	Weakness
5. Supportive Conditions	4.15	.64	4.70	.46	0.133	High	Weakness
5.1 Structural Conditions	4.22	.71	4.69	.50	0.111	Low	Strength
5.2 People's Capacities	4.08	.68	4.70	.49	0.152	High	Weakness
Total Mean Score	4.10	.58	4.69	.42	0.144		

The findings on the analysis of each aspect of the internal environment of the management to create PLCs of schools under the BMA on the table 17 indicate that the collaboration and shared practice including coaching, mentoring, class observation and giving feedbacks focusing on improving student achievement obtaining the highest $PNI_{Modified}$, 0.161, then the collective learning through inquiries, reflective dialogues and application of learning obtaining the $PNI_{Modified}$, 0.158 and the supportive conditions obtaining the $PNI_{Modified}$, 0.133, respectively are identified as the weaknesses of the management to create PLCs of schools under the BMA. The aspects gaining the low $PNI_{Modified}$ include the shared vision, mission and goals obtaining the $PNI_{Modified}$, 0.127, and the shared leadership and shared decision-making obtaining the $PNI_{Modified}=0.095$ are identified as the strengths of the management to create PLCs of schools under the BMA.

4.2.2 The analysis of the external environment of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration

The researcher conducted an analysis of the external environment employing the data collected in the questionnaires and organised the priority of needs of the data using the $PNI_{Modified}$. The highest $PNI_{Modified}$ is subtracted by the lowest $PNI_{Modified}$ and divided by two; the difference which is the mid interval value is used to identify the two groups including the aspects of the external environment and the aspects of the professional learning communities(PLCs) as follows:

The aspects of the external environment $[(0.202 - 0.169) \div 2 = 0.017]$ are put in two groups based on the $PNI_{Modified}$ as follows:

The high $PNI_{Modified}$ values are 0.202 - 0.185

The low $PNI_{Modified}$ values are 0.169 - 0.184

The aspects of the PLCs $[(0.209 - 0.152) \div 2 = 0.028]$ are put in two groups based on the $PNI_{Modified}$ as follows:

The high $PNI_{Modified}$ values are 0.209 - 0.180

The low $PNI_{Modified}$ values are 0.152 - 0.179

The aspects obtaining the high $PNI_{Modified}$ are identified as the threats of the management to create PLCs of schools under the BMA and therefore the strategies to

reduce the threats will be formulated. Those obtaining the the low $PNI_{Modified}$ are identified as the opportunities of the management to create PLCs of schools under the BMA and therefore the strategies to enhance the opportunities will be formulated. The information relating to the opportunities and threats gained from employing the $PNI_{Modified}$ will be put in the first draft of management strategies.

The results of the $PNI_{Modified}$ in an overall picture are displayed in the table 18 below.

Table 18 The $PNI_{Modified}$ of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the overall analysis of the external environment

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		$PNI_{Modified}$		Results of the environment analysis
	\bar{X}	S.D.	\bar{X}	S.D.	$PNI_{Modified}$	Group Identified	
1. Politic and Government Policy (P)	3.74	.66	4.45	.59	0.190	High	Threats
2. Economic (E)	3.72	.65	4.47	.57	0.202	High	Threats
3. Socio-cultural (S)	3.78	.64	4.49	.56	0.188	High	Threats
4. Technological (T)	3.91	.66	4.57	.51	0.169	Low	Opportunities
Total Mean Values	3.79	.63	4.49	.54			

The findings on the analysis of each aspect of the external environment of the management to create professional learning communities(PLCs) of schools under the Bangkok Metropolitan Administrations(BMA) on the table 18 indicate that the economic aspect has the highest $PNI_{Modified}$, 0.202, then the politic and government policy aspect obtaining the $PNI_{Modified}$, 0.190 and the socio-cultural aspect obtaining the $PNI_{Modified}$, 0.188, respectively are identified as the threats of the management to create PLCs of schools under the BMA. The aspect gaining the low $PNI_{Modified}$ includes

the technological aspect obtaining the $PNI_{Modified}$, 0.169 is identified as the opportunity of the management to create PLCs of schools under the BMA.

Table 19 *The $PNI_{Modified}$ of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration obtained from the analysis of the external environment under each aspect is displayed on the table as follows:*

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		Priority of Needs		Analysis of the environment
	\bar{X}	S.D.	\bar{X}	S.D.	$PNI_{Modified}$	Group Identified	
1. Politic and Government Policy (P)	3.74	.66	4.45	.59	0.190	High	Threat
1. Shared Vision, Mission and Goals	3.79	.83	4.42	.77	0.166	Low	Opportunity
2. Shared Leadership and Shared Decision-making	3.71	.81	4.41	.75	0.189	High	Threat
3. Collective Learning through Inquiries, Reflective Dialogues and Application of Learning	3.72	.76	4.43	.68	0.191	High	Threat
3.1 Collective learning through inquiries and reflective dialogues on teaching and learning	3.69	.83	4.43	.76	0.201	High	Threat
3.2 Application of learning	3.74	.81	4.42	.72	0.182	High	Threat
4. Collaboration and Shared Practice Focusing on Improving Student Achievement	3.70	.75	4.47	.66	0.208	High	Threat
4.1 Collaborative work, coaching and mentoring	3.69	.83	4.46	.73	0.209	High	Threat
4.2 Class observation and giving feedbacks to improve teaching, learning and student achievement	3.70	.82	4.47	.69	0.208	High	Threat
5. Supportive Conditions	3.78	.72	4.49	.62	0.188	High	Threat
5.1 Structural Conditions	3.79	.79	4.44	.72	0.172	Low	Opportunity
5.2 People's Capacities	3.78	.78	4.54	.65	0.201	High	Threat
2. Economic (E)	3.72	.65	4.47	.57	0.202	High	Threat
1. Shared Vision, Mission and Goals	3.70	.77	4.44	.72	0.200	High	Threat
2. Shared Leadership and Shared Decision-making	3.73	.78	4.45	.72	0.193	High	Threat

Table 19

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		Priority of Needs		Current State
	\bar{X}	S.D.	\bar{X}	S.D.	PNI Modified	Group Identified	
3. Collective Learning through Inquiries, Reflective Dialogues and Application of Learning	3.71	.73	4.43	.65	0.194	High	Threat
3.1 Collective learning through inquiries and reflective dialogues on teaching and learning	3.71	.80	4.43	.71	0.194	High	Threat
3.2 Application of learning	3.70	.78	4.45	.69	0.203	High	Threat
4. Collaboration and Shared Practice Focusing on Improving Student Achievement	3.69	.75	4.49	.63	0.217	High	Threat
4.1 Collaborative work, coaching and mentoring	3.70	.84	4.48	.68	0.211	High	Threat
4.2 Class observation and giving feedbacks to improve teaching, learning and student achievement	3.68	.80	4.50	.67	0.223	High	Threat
5. Supportive Conditions	3.77	.71	4.50	.62	0.194	High	Threat
5.1 Structural Conditions	3.78	.77	4.47	.67	0.183	High	Threat
5.2 People's Capacities	3.77	.79	4.53	.68	0.202	High	Threat
3. Socio-cultural (S)	3.78	.64	4.49	.56	0.188	High	Threat
1. Shared Vision, Mission and Goals	3.78	.78	4.48	.67	0.185	High	Threat
2. Shared Leadership and Shared Decision-making		.78	4.47	.70	0.176	Low	Opportunity
3. Collective Learning through Inquiries, Reflective Dialogues and Application of Learning	3.75	.74	4.46	.64	0.189	High	Threat
3.1 Collective learning through inquiries and reflective dialogues on teaching and learning	3.76	.81	4.48	.70	0.191	High	Threat
3.2 Application of learning	3.74	.81	4.44	.69	0.187	High	Threat
4. Collaboration and Shared Practice Focusing on Improving Student Achievement	3.76	.72	4.50	.62	0.197	High	Threat
4.1 Collaborative work, coaching and mentoring	3.74	.80	4.50	.66	0.203	High	Threat
4.2 Class observation and giving feedbacks to improve teaching, learning and student achievement	3.77	.78	4.49	.67	0.191	High	Threat

Table 19

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		Priority of Needs		Current State
	\bar{X}	S.D.	\bar{X}	S.D.	PNI Modified	Group Identified	
5. Supportive Conditions	3.81	.70	4.51	.61	0.184	High	Threat
5.1 Structural Conditions	3.80	.77	4.48	.66	0.179	Low	Opportunity
5.2 People's Capacities	3.82	.75	4.55	.66	0.191	High	Threat
4. Technological (T)	3.91	.66	4.57	.51	0.169	Low	Opportunity
1. Shared Vision, Mission and Goals	4.00	.80	4.62	.58	0.155	Low	Opportunity
2. Shared Leadership and Shared Decision-making	3.95	.81	4.55	.66	0.152	Low	Opportunity
3. Collective Learning through Inquiries, Reflective Dialogues and Application of Learning	3.88	.74	4.54	.60	0.170	Low	Opportunity
3.1 Collective learning through inquiries and reflective dialogues on teaching and learning	3.87	.81	4.53	.65	0.171	Low	Opportunity
3.2 Application of learning	3.89	.79	4.54	.67	0.167	Low	Opportunity
4. Collaboration and Shared Practice Focusing on Improving Student Achievement	3.88	.75	4.59	.57	0.183	High	Threat
4.1 Collaborative work, coaching and mentoring	3.90	.81	4.61	.61	0.182	High	Threat
4.2 Class observation and giving feedbacks to improve teaching, learning and student achievement	3.86	.81	4.57	.63	0.184	High	Threat
5. Supportive Conditions	3.91	.71	4.56	.58	0.166	Low	Opportunity
5.1 Structural Conditions	3.91	.80	4.52	.65	0.156	Low	Opportunity
5.2 People's Capacities	3.92	.74	4.60	.62	0.173	Low	Opportunity
Total Mean Score	3.79	.63	4.49	.54			

Based on the analysis of each aspect of the external environment of the management to create professional learning communities of schools under the BMA on the table 19, the findings reveal that the aspects with the high PNI_{modified} which become threats include the socio-cultural aspect ($\bar{X} = 3.78$), the political and government policy ($\bar{X} = 3.74$) and the economic aspect ($\bar{X} = 3.72$) respectively.

The PLCs attributes which have the high $PNI_{Modified}$ and the economic factor ($PNI_{Modified}= 0.202$) as threats include the collaboration and shared practice focusing on improving the student achievement ($PNI_{Modified}= 0.217$), the shared vision, mission and goals ($PNI_{Modified}= 0.200$), the collective learning through inquiries, reflective dialogues and application of learning ($PNI_{Modified}= 0.194$), the supportive conditions ($PNI_{Modified}= 0.194$) and the shared leadership and shared decision ($PNI_{Modified}= 0.193$) respectively.

The PLCs attributes which have the high $PNI_{Modified}$ and the political and government policy factor ($PNI_{Modified}= 0.190$) as threats include the collaboration and shared practice focusing on improving the student achievement ($PNI_{Modified}= 0.208$), the collective learning through inquiries, reflective dialogues and application of learning ($PNI_{Modified}= 0.191$), the supportive conditions ($PNI_{Modified}= 0.188$) and the shared leadership and shared decision ($PNI_{Modified}= 0.186$) respectively; and the PLCs attribute which has the low $PNI_{Modified}$ as the opportunity includes the shared vision, mission and goals ($PNI_{Modified}= 0.166$).

The PLCs attributes which have the high $PNI_{Modified}$ and the socio-cultural factor ($PNI_{Modified}= 0.188$) as threats include the collaboration and shared practice focusing on improving the student achievement ($PNI_{Modified}= 0.197$), the collective learning through inquiries, reflective dialogues and application of learning ($PNI_{Modified}= 0.189$), the shared vision, mission and goals ($PNI_{Modified}= 0.185$) and the supportive conditions ($PNI_{Modified}= 0.184$) respectively; and the PLCs attribute which has the low $PNI_{Modified}$ as the opportunity includes the shared leadership and shared decision ($PNI_{Modified}= 0.176$).

The PLCs attributes which have the low $PNI_{Modified}$ and the technological factor ($PNI_{Modified}= 0.169$) as opportunities include the shared leadership and shared decision ($PNI_{Modified}= 0.152$), the shared vision, mission and goals ($PNI_{Modified}= 0.155$), the supportive conditions ($PNI_{Modified}= 0.166$) and the collective learning through inquiries, reflective dialogues and application of learning ($PNI_{Modified}= 0.170$) respectively; and the PLCs attribute which has the high $PNI_{Modified}$ as a threat includes the collaboration and shared practice focusing on improving the student achievement ($PNI_{Modified}= 0.183$).

The SWOT Analysis of Each Aspect

The components of the internal environment

$[(0.182 - 0.087) \div 2 = 0.048]$ are organised into two groups as follows:

The high $PNI_{Modified}$ values are 0.182 - 0.134

The low $PNI_{Modified}$ values are 0.087 - 0.133

The components of the external environment

$[(0.216 - 0.152) \div 2 = 0.032]$ are organised into two groups as follows:

The high $PNI_{Modified}$ values are 0.216 - 0.184

The low $PNI_{Modified}$ values are 0.152 - 0.183

Table 20 The $PNI_{Modified}$ of management to create professional learning communities of schools under the BMA obtained from the analysis of the internal environment on each aspect

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		Needs		Analysis of Environment
	\bar{X}	S.D.	\bar{X}	S.D.	$PNI_{Modified}$	$PNI_{Modified}$ Group	
1. Shared vision, mission and goals	4.18	.62	4.71	.44	0.127	Low	Strength
1. School administrators and teachers collaboratively define vision, mission and goals.	4.31	.71	4.76	.46	0.104	Low	Strength
2. The curriculum design and development are aligned with the school vision, mission and goal.	4.27	.71	4.75	.49	0.112	Low	Strength
3. The learning objectives, expected outcomes and learning experiences in the lesson plans are aligned with the school vision, mission and goal.	4.11	.75	4.68	.57	0.139	High	Weakness
4. The student assessment and evaluation is aligned with the school vision, mission and goal.	4.10	.71	4.67	.58	0.139	High	Weakness
5. The teacher professional development is aligned with the school vision, mission and goal.	4.09	.77	4.67	.55	0.142	High	Weakness
6. The political aspect and government policies accommodate the practice of the shared vision, mission and goal of the school.	3.79	.83	4.42	.77	0.166	Low	Opportunity
7. The economic aspect accommodates the practice of the shared vision, mission and goal of the school.	3.70	.77	4.44	.72	0.200	High	Threat
8. The socio-cultural aspect accommodates the practice of the shared vision, mission and goal of the school.	3.78	.78	4.48	.67	0.185	High	Threat

Table 20

9. The advanced technology accommodates the practice of the shared vision, mission and goal of the school.	4.00	.80	4.62	.58	0.155	Low	Opportunity
2. Shared Leadership and shared decisions	4.31	.67	4.72	.47	0.095	Low	Strength
10. Teachers collectively take part in making decision to define learning standards and content of the school curriculum.	4.34	.76	4.72	.54	0.088	Low	Strength
11. Teachers collectively take part in making decisions to define the learning objectives, the expected learning outcomes and learning experiences that are suitable to the students' ages and their learning development.	4.35	.74	4.73	.53	0.087	Low	Strength
12. Teachers collectively take part in making decisions to define the student assessment methods and criteria which are aligned with the learning standards and objectives. .	4.35	.73	4.75	.53	0.092	Low	Strength
13. Teachers collectively take part in making decisions on the approaches to the teacher professional development.	4.18	.78	4.67	.57	0.117	Low	Strength
14. The political aspect and government policies accommodate the teachers' collective decision on the school programmes and activities that develop professional learning communities.	3.71	.81	4.41	.75	0.189	High	Threat
15. The economic aspect accommodates the teachers' collective decision on the school programmes and activities that develop professional learning communities.	3.73	.78	4.45	.72	0.193	High	Threat
16. The socio-cultural aspect accommodates the teachers' collective decision on the school programmes and activities that develop professional learning communities.	3.81	.78	4.47	.69	0.173	Low	Opportunity
17. The advanced technology accommodates the teachers' collective decision on the school programmes and activities that develop professional learning communities.	3.95	.81	4.55	.66	0.152	Low	Opportunity
3. Collective learning through inquiry and reflective dialogues and application of learning)	3.99	.65	4.62	.51	0.158	High	Weakness
3.1 The teachers collectively learn through inquiry and reflective discussion about the school provision.	3.97	.71	4.61	.54	0.161	High	Weakness

Table 20

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		Needs		Analysis of Environment
	\bar{X}	S.D.	\bar{X}	S.D.	PNI Modified	Identified Group	
18. The teachers collectively learn through inquiry and reflective discussion about learning standards, learning content and approaches to the improvement of the school curriculum.	3.92	.78	4.58	.60	0.168	High	Weakness
19. The teachers collectively learn through inquiry and reflective discussion about learning experiences, projects, activities and approaches to the improvement of the learning experiences.	4.03	.76	4.60	.57	0.141	High	Weakness
20. The teachers collectively learn through inquiry and reflective discussion about the achievement results and approaches to the improvement of the results.	4.02	.78	4.65	.58	0.157	High	Weakness
21. The teachers collectively learn through inquiry and reflective discussion about the the teacher professional development programme that focus on students' learning.	3.91	.81	4.62	.65	0.182	High	Weakness
22. The political aspect and government policies accommodate the teachers' collective learning through inquiry and reflective discussion about the school provision and approaches to the improvement of the provision.	3.69	.83	4.43	.76	0.201	High	Threat
23. The economic aspect accommodates the teachers' collective learning through inquiry and reflective discussion about the school provision and approaches to the improvement of the provision.	3.71	.80	4.43	.71	0.194	High	Threat
24. The socio-cultural aspect accommodates the teachers' collective learning through inquiry and reflective discussion about the school provision and approaches to the improvement of the provision.	3.76	.81	4.48	.70	0.191	High	Threat
25. The advanced technology accommodates the teachers' collective learning through inquiry and reflective discussion about the school provision and approaches to the improvement of the provision.	3.87	.81	4.53	.65	0.171	Low	Opportunity

Table 20

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		Needs		Analysis of Environment
	\bar{X}	S.D.	\bar{X}	S.D.	PNI Modified	PNI Modified Group	
3.2 Application of learning to improve the school provision	4.00	.67	4.64	.54	0.160	High	Weakness
26. The teachers apply knowledge and ideas gained from the collective learning to improve the school curriculum.	4.01	.73	4.67	.58	0.165	High	Weakness
27. . The teachers apply knowledge and ideas gained from the collective learning to improve the lesson plans.	4.00	.76	4.67	.59	0.168	High	Weakness
28. . The teachers apply knowledge and ideas gained from the collective learning to improve the student assessment and evaluation.	3.98	.74	4.59	.65	0.153	High	Weakness
29. . The teachers apply knowledge and ideas gained from the collective learning to improve their teacher professional development.	4.01	.77	4.62	.59	0.152	High	Weakness
30. The political aspect and government policies accommodate the teachers' collective learning through inquiries, reflective discussion and application of learning to improve the school provision.	3.74	.81	4.41	.72	0.179	Low	Opportunity
31. The economic aspect accommodates the teachers' collective learning through inquiries, reflective discussion and application of learning to improve the school provision.	3.70	.78	4.45	.69	0.203	High	Threat
32. The socio-cultural aspect accommodates the teachers' collective learning through inquiries, reflective discussion and application of learning to improve the school provision.	3.74	.81	4.46	.69	0.193	High	Threat
33. The advanced technology accommodates the teachers' collective learning through inquiries, reflective discussion and application of learning to improve the school provision.	3.89	.79	4.54	.67	0.167	Low	Opportunity
4. Collaboration and shared practice focusing on improving student achievement	4.04	.67	4.69	.45	0.161	High	Weakness
4.1 Collaboration, Coaching and Mentoring	4.06	.74	4.72	.47	0.163	High	Weakness
34. The teachers work collaboratively, mentor teachers provide coaching and guidance to mentees on the development of the school curriculum that improves student learning and achievement.	4.11	.80	4.74	.53	0.153	High	Weakness

Table 20

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		Needs		Analysis of Environment
	\bar{X}	S.D.	\bar{X}	S.D.	PNI Modified	PNI Modified	
35. The teachers work collaboratively, mentor teachers provide coaching and guidance to mentees on improving the lesson plans that focus on student learning and achievement.	4.08	.78	4.72	.54	0.157	High	Weakness
36. The teachers work collaboratively, mentor teachers provide coaching and guidance to mentees on the improving the student assessment and evaluation.	4.04	.79	4.74	.49	0.173	High	Weakness
37. The teachers work collaboratively, mentor teachers provide coaching and guidance to mentees on the teacher professional development programme that supports the student learning.	4.02	.79	4.70	.54	0.169	High	Weakness
38. The politics and government policies accommodate the teachers' collaborative work, coaching and mentoring to improve the student achievement.	3.69	.83	4.46	.73	0.209	High	Threat
39. The economic aspect accommodates the teachers' collaborative work, coaching and mentoring to improve the student achievement.	3.70	.84	4.48	.68	0.211	High	Threat
40. The socio-cultural aspect accommodates the teachers' collaborative work, coaching and mentoring to improve the student achievement.	3.74	.80	4.50	.66	0.203	High	Threat
41. The advanced technology accommodates the teachers' collaborative work, coaching and mentoring to improve the student achievement.	3.90	.81	4.61	.61	0.182	Low	Opportunity
4.2 Peer observation and giving feedback to improve student achievement	4.02	.71	4.66	.51	0.159	High	Weakness
42. The peer observation and giving feedback take place regularly.	4.12	.80	4.68	.56	0.136	High	Weakness
43. The observation feedback is applied to the improvement of the school curriculum.	3.99	.79	4.65	.60	0.165	High	Weakness
44. The observation feedback is applied to improve lesson plans.	4.00	.79	4.65	.58	0.163	High	Weakness
45. The observation feedback is applied to improve the student assessment and evaluation.	3.98	.77	4.66	.55	0.171	High	Weakness

Table 20

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		Needs		Analysis of Environment
	\bar{X}	S.D.	\bar{X}	S.D.	PNI Modified	PNI Modified Group	
46. The observation feedback is applied to improve the teacher's continuing professional development programme	4.00	.79	4.66	.56	0.165	High	Weakness
47. The political aspect and government policies accommodate the peer observation and giving feedback to improve the school provision.	3.70	.82	4.47	.69	0.208	High	Threat
48. The economic aspect accommodates the peer observation and giving feedback to improve the school provision.	3.70	.81	4.50	.67	0.216	High	Threat
49. The socio-cultural aspect accommodates the peer observation and giving feedback to improve the school provision.	3.77	.78	4.50	.67	0.194	High	Threat
50. The advanced technology accommodates the peer observation and giving feedback to improve the school provision.	3.86	.81	4.57	.63	0.184	High	Threat
5. Supportive Conditions	4.15	.64	4.70	.46	0.133	High	Weakness
5.1 The structural conditions to support the PLCs may include the allocation of time for meetings and operation, communication and technology system, access to the school information and teacher empowerment, etc.	4.22	.71	4.69	.50	0.111	Low	Strength
51. School administrators provide the teachers with the structural conditions to support their work on the curriculum development.	4.20	.77	4.68	.58	0.114	Low	Strength
52. School administrators provide the teachers with the structural conditions to support their instruction.	4.24	.75	4.69	.54	0.106	Low	Strength
53. School administrators provide the teachers with the structural conditions to support their work on the development of student assessment methods and criteria.	4.23	.74	4.70	.56	0.111	Low	Strength
54. School administrators provide the teachers with the structural conditions to support their continuing professional development	4.20	.76	4.70	.55	0.119	Low	Strength
55. The political aspect and government policies accommodate the allocation of the structural conditions to create the professional learning communities of schools.	3.79	.79	4.44	.72	0.172	Low	Opportunity

Table 20

Management to create professional learning communities of schools under the Bangkok Metropolitan Administration	Current State		Desired State		Needs		Analysis of Environment
	\bar{X}	S.D.	\bar{X}	S.D.	PNI Modified	PNI Modified Group	
56. The economic aspect accommodates the allocation of the structural conditions to create the professional learning communities of schools.	3.78	.77	4.47	.67	0.183	Low	Opportunity
57. The socio-cultural aspect accommodates the allocation of the structural conditions to create the professional learning communities of schools.	3.80	.77	4.48	.67	0.179	Low	Opportunity
58. The advanced technology accommodates the allocation of the structural conditions to create the professional learning communities of schools.	3.91	.80	4.52	.65	0.156	Low	Opportunity
5.2 The People's Capacities which include peoples' knowledge, skills, expertise, positive attitude and willingness to make improvement, etc.	4.08	.68	4.70	.49	0.152	High	Weakness
59. Teachers have capacities to improve the school curriculum.	4.06	.75	4.71	.55	0.160	High	Weakness
60. Teachers have capacities to improve the lesson plans and learning activities.	4.09	.74	4.71	.55	0.152	High	Weakness
61. Teachers have capacities to improve the student assessment and evaluation	4.08	.73	4.70	.54	0.152	High	Weakness
62. Teachers have capacities to improve their continuing professional development.	4.10	.73	4.69	.55	0.144	High	Weakness
63. The political aspect and government policies accommodate the increase of teachers' capacities to create the professional learning communities.	3.78	.78	4.54	.65	0.201	High	Threat
63. The economic aspect accommodates the increase of teachers' capacities to create the professional learning communities.	3.77	.79	4.53	.68	0.202	High	Threat
65. The socio-cultural aspect accommodates the increase of teachers' capacities to create the professional learning communities.	3.82	.75	4.55	.66	0.191	High	Threat
66. The advanced technology accommodates the increase of teachers' capacities to create the professional learning communities.	3.92	.74	4.60	.62	0.173	Low	Opportunity

4.3 Management Strategies

Management Strategies to Create Professional Learning Communities of Schools under the Bangkok Metropolitan Administration

There are five parts of the development of management strategies to create professional learning communities(PLCs) of schools under the Bangkok Metropolitan Administration(BMA)

4.3.1 The researcher produces the first draft of management strategies to create PLCs of schools under the BMA using the analysed information obtained from the SWOT Matrix

4.3.2 The individual specialists and stakeholders examine the suitability and feasibility of the first draft of management strategies to create PLCs of schools under the BMA.

4.3.3. The focus group examine the suitability and feasibility of the second draft of management strategies to create PLCs of schools under the BMA.

4.3.4 The researcher revises the second draft and produces the final version of management strategies to create PLCs of schools under the BMA; the details are as follows:

4.3.1 SWOT Matrix

The researcher produces the first draft of management strategies to create professional learning communities(PLCs) of schools under the Bangkok Metropolitan Administration(BMA) using the analysed information obtained from the SWOT Matrix; the details are as follows:

Step 1: Use SWOT Matrix to match the strengths, weaknesses, opportunities and threats , pairs are identified as strengths - opportunities (SO) , weaknesses – opportunities (WO), strengths – threats (ST) and weaknesses – threats (WT)

Step 2: The analysis of the PLCs attributes obtaining from the SWOT matrix are identified as appeared in the table 21.

Step 3 The results of the SWOT Matrix are produced into the first draft of management strategies to create professional learning communities(PLCs) of schools under the Bangkok Metropolitan Administration(BMA).

Table 21 SWOT Matrix of Management to Create Professional Learning Communities of Schools under the Bangkok Metropolitan Administration


	Strength (S)	Weakness (W)
Strength -Weakness	<p>1.Shared leadership and shared decisions (PNI_{Modified}= 0.095)</p> <p>1.1 School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>1.2 Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p> <p>2. Shared vision, mission and goals (PNI_{Modified}= 0.119)</p> <p>2.1 Administrators and teachers collaboratively define a vision, mission and goals for the school. (PNI_{Modified}= 0.104)</p> <p>2.2 Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p>3.Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.133)</p> <p>3.1.Structural conditions including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.111)</p>	<p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedbacks which are used as guidelines for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1 Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2 Class observation and giving feedback are implemented; the feedbacks are used as guidelines for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p> <p>2.Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.158)</p> <p>2.1 Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.161)</p> <p>2.2 Application of Learning (PNI_{Modified}= 0.160)</p> <p>3.Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.133)</p> <p>3.1 People's capacities including professional knowledge, skills, positive attitudes in receiving feedbacks, trust, respect and willingness to improve oneself, etc. (PNI_{Modified}= 0.152)</p>
Opportunities-Threats		

Table 21


<u>Opportunities (O)</u>	<u>Strength-Opportunities (SO)</u>	<u>Weakness-Opportunities (WO)</u>
<p>1. Technological Factor (PNI_{Modified}= 0.169)</p> <p>1. Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>1.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>1.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p> <p>2. Shared vision, mission and goals (PNI_{Modified}= 0.155)</p> <p>2.1) Administrators and teachers collaboratively define a vision, mission and goals fo the school. (PNI_{Modified}= 0.104)</p> <p>2.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p>3. Supportive Conditions of Professional Learning</p>	<p>(SO 1) The technological factor becomes an opportunity that contributes to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>1.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>1.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p> <p>2. Shared vision, mission and goals (PNI_{Modified}= 0.155)</p> <p>2.1) Administrators and teachers collaboratively define a vision, mission and goals fo the school. (PNI_{Modified}= 0.104)</p> <p>2.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p>3. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>3.1) Structural conditions including allocating times for meetings, providing supportive systems such as communication system,</p>	<p>(WO 1) The technological factor becomes an opportunity that reduces the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>1.1 Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>1.2 Application of Learning (PNI_{Modified}= 0.167)</p> <p>2. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>2.1) People’s capacities including professional knowledge, skills, positive attitudes in accepting feedbacks, trust, respect and willingness to improve oneself, etc. (PNI_{Modified}= 0.173)</p>

<p>Communities (PNI_{Modified}= 0.166)</p> <p>3.1) Structural conditions including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.156)</p> <p>3.2) People's capacities including professional knowledge, skills, positive attitudes in accepting feedbacks, trust, respect and willingness to improve oneself, etc. (PNI_{Modified}= 0.173)</p> <p>4. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>4.1 Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>4.2 Application of Learning (PNI_{Modified}= 0.167)</p> <p>2. Socioal Factor (PNI_{Modified}= 0.188)</p>	<p>information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.156)</p> <p>(SO 2) The social factor becomes an opportunity that contributes to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1.Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>1.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>1.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p> <p>2. Supportive Conditions of Professional Learning</p>	<p>(WO 2) The social factor becomes an opportunity that reduces the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p><u>NONE</u></p>
--	---	--

<p>1. Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>1.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>1.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p> <p>2. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>2.1) Structural conditions including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.156)</p> <p>3. <u>Political and Public Policy Factor</u> (PNI_{Modified}= 0.190)</p>	<p>Communities (PNI_{Modified}= 0.166)</p> <p>3.1) Structural conditions including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.156)</p> <p>(SO 3) The political and public policy factor becomes an opportunity that contributes to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Shared vision, mission and goals (PNI_{Modified}= 0.155)</p> <p>1.1) Administrators and teachers collaboratively define a vision, mission and goals for the school. (PNI_{Modified}= 0.104)</p> <p>1.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p>2. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>2.1) Structural conditions including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers'</p>	<p>(WO 3) The political and public policy factor becomes an opportunity that reduces the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p><u>NONE</u></p>
--	---	---


<p>1. Shared vision, mission and goals (PNI_{Modified}= 0.155)</p> <p>1.1) Administrators and teachers collaboratively define a vision, mission and goals fo the school. (PNI_{Modified}= 0.104)</p> <p>1.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p>2. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>2.1) Structural conditions including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.156)</p>	<p>autonomy, etc (PNI_{Modified}= 0.156)</p> 	
<u>Threats (T)</u>	<u>Strength-Threats (ST)</u>	<u>Weakness-Threats (WT)</u>
<p>1. <u>Economic Factor</u> (PNI_{Modified}= 0.202)</p> <p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving</p>	<p>(ST 1) The economic factor becomes a threat to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Shared vision, mission and goals (PNI_{Modified}= 0.155)</p>	<p>(WT 1) The economic factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collaboration and shared practice including coaching,</p>


<p>feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1) Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2) Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p> <p>2. Shared vision, mission and goals (PNI_{Modified}= 0.155)</p> <p>2.1) Administrators and teachers collaboratively define a vision, mission and goals for the school. (PNI_{Modified}= 0.104)</p> <p>2.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p>3. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>3.1) Collective Learning through inquiry and reflective</p>	<p>1.1) Administrators and teachers collaboratively define a vision, mission and goals for the school. (PNI_{Modified}= 0.104)</p> <p>1.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p>2. Supportive conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>2.1) Structural conditions including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc.</p> <p>3. Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>3.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>3.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p>	<p>mentoring, teaching observation and giving feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1 Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2 Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p> <p>2. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>2.1) Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>2.2) Application of Learning (PNI_{Modified}= 0.167)</p> <p>4. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>4.1) People's capacities including professional knowledge, skills, positive attitudes in receiving feedbacks, trust, respect and willingness to improve oneself, etc. (PNI_{Modified}= 0.173)</p>
---	---	--

<p>dialogues (PNI_{Modified}=0.171)</p> <p>3.2) Application of Learning (PNI_{Modified}=0.167)</p> <p>4. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>4.1) Structural conditions including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.156)</p> <p>4.2) People's capacities including professional knowledge, skills, positive attitudes in receiving feedbacks, trust, respect and willingness to improve oneself, etc. (PNI_{Modified}= 0.173)</p> <p>5. Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>5.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p>	 <p>(ST 2) The political and public policy factor becomes a threat to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>1.1) School Administrators and teachers share their leadership in</p>	<p>(WT 2) The political and public policy factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and</p>
---	---	---

<p>5.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p> <p>2. Political and Public Policy Factor (PNI_{Modified} = 0.190)</p> <p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1) Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2) Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p> <p>2. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p>	<p>providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>1.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p>	<p>student achievement (PNI_{Modified}= 0.161)</p> <p>1.1) Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2) Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p> <p>2. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>2.1) Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>2.2) Application of Learning (PNI_{Modified}= 0.167)</p> <p>3. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>3.1) People's capacities including professional knowledge, skills, positive attitudes in accepting feedbacks, trust, respect and willingness to improve oneself, etc.</p>
--	---	---

<p>2.1) Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>2.2) Application of Learning (PNI_{Modified}= 0.167)</p> <p>3. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>3.1) People's capacities including professional knowledge, skills, positive attitudes in accepting feedbacks, trust, respect and willingness to improve oneself, etc. (PNI_{Modified}= 0.173)</p> <p>4. Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>4.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>4.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p> <p>3. <u>Social Factor</u> (PNI_{Modified}= 0.188)</p>	<p>(ST 3) The social factor becomes a threat to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1 Shared vision, mission and goals (PNI_{Modified}= 0.155)</p> <p>1.1) Administrators and teachers collaboratively define a vision, mission and goals for the school. (PNI_{Modified}= 0.104)</p> <p>1.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p>	<p>(WT 3) The social factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1) Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2) Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p> <p>2. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>2.1) Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>2.2) Application of Learning (PNI_{Modified}= 0.167)</p> <p>3. Supportive Conditions of Professional Learning</p>
---	--	---

<p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1) Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2) Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p> <p>2. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>2.1) Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>2.2) Application of Learning (PNI_{Modified}= 0.167)</p> <p>3. Shared vision, mission and goals (PNI_{Modified}= 0.155)</p>	 <p>(ST 4) The technological factor becomes a threat to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p><u>NONE</u></p>	<p>Communities (PNI_{Modified}= 0.166)</p> <p>3.1) People's capacities including professional knowledge, skills, positive attitudes in receiving feedbacks, trust, respect and willingness to improve oneself, etc.</p> <p>(WT 4) The technological factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1) Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2) Class observation and giving feedback are implemented;</p>
--	--	---

<p>3.1) Administrators and teachers collectively define a vision, mission and goals for the school. (PNI_{Modified}= 0.104)</p> <p>3.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p>4. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>4.1) People's capacities including professional knowledge, skills, positive attitudes in receiving feedbacks, trust, respect and willingness to improve oneself, etc.</p> <p>4. <u>Technological Factor</u> (PNI_{Modified}= 0.169)</p> <p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1) Teachers work in collaboration, coaching</p>		<p>the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p>
--	--	--

<p>and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2) Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p>		
--	--	--

Table 22 SO / ST / WO / WT of Management to create Professional learning communities of Schools under the Bangkok Metropolitan Administration

<p><i>Professional learning communities</i> <i>Attributes of Schools under the Bangkok Metropolitan Administration</i></p>	<p>SO / ST / WO / WT</p>
<p>1. Shared vision, mission and goals</p> <p>SO - ST</p>	<p><u>Strength –Opportunities</u></p> <p>(SO 1) The technological factor becomes an opportunity that contributes to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Shared vision, mission and goals (PNI_{Modified}= 0.155) 1.1) Administrators and teachers collaboratively define a vision, mission and goals fo the school. (PNI_{Modified}= 0.104) 1.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p>(SO 3) The political and public policy factor becomes an opportunity that contributes to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Shared vision, mission and goals (PNI_{Modified}= 0.155)</p>

	<p>1.1) Administrators and teachers collaboratively define a vision, mission and goals for the school. (PNI_{Modified}= 0.104)</p> <p>1.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p><u>Strength-Threats (ST)</u></p> <p><u>(ST 1)</u> The economic factor becomes a threat to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Shared vision, mission and goals (PNI_{Modified}= 0.155)</p> <p>1.1) Administrators and teachers collaboratively define a vision, mission and goals for the school. (PNI_{Modified}= 0.104)</p> <p>1.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p> <p><u>(ST 3)</u> The socio-cultural factor becomes a threat to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1 Shared vision, mission and goals (PNI_{Modified}= 0.155)</p> <p>1.1) Administrators and teachers collaboratively define a vision, mission and goals for the school. (PNI_{Modified}= 0.104)</p> <p>1.2) Teaching and learning are accorded with shared vision, mission and goals of the school. (PNI_{Modified}= 0.133)</p>
<p>2. Shared Leadership and shared decisions</p> <p>SO - ST</p>	<p><u>Strength - Opportunities (SO)</u></p> <p><u>(SO 1)</u> The technological factor becomes an opportunity that contributes to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1.Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>1.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>1.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p> <p><u>(SO 2)</u> The socio-cultural factor becomes an opportunity that contributes to the strength of the management to create</p>

	<p>professional learning communities of schools under the BMA in the following aspects:</p> <p>1.Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>1.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>1.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p> <p><u>Strength - Threats (ST)</u></p> <p><u>(ST 1)</u> The economic factor becomes a threat to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1.Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>1.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>1.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p> <p><u>(ST 2)</u> The political and public policy factor becomes a threat to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1.Shared leadership and shared decisions (PNI_{Modified}= 0.152)</p> <p>1.1) School Administrators and teachers share their leadership in providing teaching and learning to students. (PNI_{Modified}= 0.095)</p> <p>1.2) Teachers take part in making decisions about teaching and learning. (PNI_{Modified}= 0.095)</p>
<p>3. Collective Learning through inquiry, reflective dialogues and application of learning</p> <p>WO - WT</p>	<p><u>Weakness - Opportunities (WO)</u></p> <p><u>(WO 1)</u> The technological factor becomes an opportunity that reduces the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>1.1 Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>1.2 Application of Learning (PNI_{Modified}= 0.167)</p> <p><u>Weakness - Threats (WT)</u></p>

	<p>(WT 1) The economic factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>1.1) Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>1.2) Application of Learning (PNI_{Modified}= 0.167)</p> <p>(WT 2) The political and public policy factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>1.1) Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>1.2) Application of Learning (PNI_{Modified}= 0.167)</p> <p>(WT 3) The socio-cultural factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collective Learning through inquiry, reflective dialogues and application of learning (PNI_{Modified}= 0.170)</p> <p>1.1) Collective Learning through inquiry and reflective dialogues (PNI_{Modified}= 0.171)</p> <p>1.2) Application of Learning (PNI_{Modified}= 0.167)</p>
<p>4. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and</p>	<p><u>Weakness - Threats (WT)</u></p> <p>(WT 1) The economic factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1 Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p>

<p>student achievement</p> <p>WT</p>	<p>1.2 Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p> <p>(WT 2) The political and public policy factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1 Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2 Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p> <p>(WT 3) The socio-cultural factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1 Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p> <p>1.2 Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p> <p>(WT 4) The technological factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Collaboration and shared practice including coaching, mentoring, teaching observation and giving feedback as a guideline for improving instruction and student achievement (PNI_{Modified}= 0.161)</p> <p>1.1 Teachers work in collaboration, coaching and mentoring are implemented. (PNI_{Modified}= 0.163)</p>
--	---

	<p>1.2 Class observation and giving feedback are implemented; the feedback becomes a guideline for improving instruction and student achievement. (PNI_{Modified}= 0.159)</p>
<p>5. Supportive Conditions of Professional Learning Communities</p> <p>SO – ST - WO - WT</p>	<p><u>Strength - Opportunities (SO)</u></p> <p><u>(SO 1)</u> The technological factor becomes an opportunity that contributes to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>1.1) Structural support including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.156)</p> <p><u>(SO 2)</u> The socio-cultural factor becomes an opportunity that contributes to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>1.1) Structural support including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.156)</p> <p><u>(SO 3)</u> The political and public policy factor becomes an opportunity that contributes to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>1.1) Structural support including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.156)</p> <p><u>Strength – Threats (ST)</u></p> <p><u>(ST 1)</u> The economic factor becomes a threat to the strength of the management to create professional learning communities of schools under the BMA in the following aspects:</p>

	<p>1. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>1.1) Structural support including allocating times for meetings, providing supportive systems such as communication system, information technology system and teachers' autonomy, etc (PNI_{Modified}= 0.156)</p> <p><u>Weakness - Opportunities (WO)</u></p> <p><u>(WO 1)</u> The technological factor becomes an opportunity that reduces the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>1.1) People's capacities including professional knowledge, skills, positive attitudes in receiving feedbacks, trust, respect and willingness to improve oneself, etc. (PNI_{Modified}= 0.173)</p> <p><u>Weakness - Threats (WT)</u></p> <p><u>(WT 1)</u> The economic factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>1.1) People's capacities including professional knowledge, skills, positive attitudes in receiving feedbacks, trust, respect and willingness to improve oneself, etc. (PNI_{Modified}= 0.173)</p> <p><u>(WT 2)</u> The political and public policy factor becomes a threat to the weakness of the management to create professional learning communities of schools under the BMA in the following aspects:</p> <p>1. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>1.1) People's capacities including professional knowledge, skills, positive attitudes in receiving feedbacks, trust, respect and willingness to improve oneself, etc. (PNI_{Modified}= 0.173)</p> <p><u>(WT 3)</u> The socio-cultural factor becomes a threat to the weakness of the management to create professional learning</p>
--	--

	<p>communities of schools under the BMA in the following aspects:</p> <p>1. Supportive Conditions of Professional Learning Communities (PNI_{Modified}= 0.166)</p> <p>1.1) People's capacities including professional knowledge, skills, positive attitudes in receiving feedbacks, trust, respect and willingness to improve oneself, etc. (PNI_{Modified}= 0.173)</p>
--	--

The findings of the analysis on SO / ST / WO / WT of the management to create professional learning of schools under the BMA on the table 22 reveal that

1) the shared vision, mission and goal has two pairs of strengths and opportunities (S-O) and two pairs of strengths and threats (S-T) 2) the shared leadership and shared decision making has two pairs of strengths and opportunities (S-O) and two pairs of strengths and threats (S-T) 3) the collective learning through inquiries, reflective dialogues and application of learning has one pair of weakness and opportunity (W-O) and three pairs of weakness and threats (W-T) 4) the collaboration and shared practice focusing on student achievement has four pairs of weaknesses and threats (WT) and 5) the supportive conditions has three pairs of strengths and opportunities (SO) and one pair of strength and threats (ST), one pair of weakness and opportunity (WO) and three pairs of weaknesses and threats (WT).

Table 23 Summary of the SWOT Analysis

	Strengths	Weakness
Internal	I. Shared Leadership and shared decision-making (PNI _{Modified} =0.095) II. Shared vision, mission and goals (PNI _{Modified} =0.127) III. Structural support (supportive conditions) (PNI _{Modified} =0.111)	I. Collaboration and shared practice focusing on improving student achievement (PNI _{Modified} =0.1491) II. Collective learning through inquiry, reflective dialogues and application of learning (PNI _{Modified} =0.1491) III. People's capacities (Supportive conditions) (PNI _{Modified} =0.1491)
	Opportunity	Threats
External	I. Technological aspect (PNI _{Modified} =0.2112)	1. Economic aspect (PNI _{Modified} =0.2610) 2. Political aspect and government policies (PNI _{Modified} =0.2595) 3. Socio-cultural (PNI _{Modified} =0.2471)

Table 24 Summary of the Results of the TOWS Matrix analysis of the attributes of the PLCs

Attributes of PLCs	Results of SWOT Analysis
1) Shared vision, mission and goal S-O S-T	(Strength - Opportunity) <ul style="list-style-type: none"> • Shared vision, mission and goal – Technological aspect • shared vision, mission and goal – Political and public policy aspect (Strength - Threat) <ul style="list-style-type: none"> • Shared vision, mission and goal – Economic aspect • Shared vision, mission and goal – Socio-cultural aspect

<p>2) Shared leadership and shared decision making</p> <p>S-O S-T</p>	<p>(Strength - Opportunity)</p> <ul style="list-style-type: none"> • Shared leadership and shared decision making – Technological aspect • Shared leadership and shared decision making – Socio-cultural aspect <p>(Strength - Threat)</p> <ul style="list-style-type: none"> • Shared leadership and shared decision making – Economic aspect • Shared leadership and shared decision making – Political and public policy aspect
<p>3) Collective learning through inquiries, reflective dialogues and application of learning</p> <p>W-O W-T</p>	<p>(Weakness-Opportunity)</p> <ul style="list-style-type: none"> • Collective learning through inquiries, reflective dialogues and application of learning – Technological aspect <p>(Weakness-Threat)</p> <ul style="list-style-type: none"> • Collective learning through inquiries, reflective dialogues and application of learning – Economic aspect • Collective learning through inquiries, reflective dialogues and application of learning – Political and public policy aspect • Collective learning through inquiries, reflective dialogues and application of learning – Socio-cultural aspect
<p>4) Collaboration and shared practice focusing on student achievement</p> <p>W-T</p>	<p>(Weakness-Threat)</p> <ul style="list-style-type: none"> • Collaboration and shared practice focusing on student achievement – Economic aspect • Collaboration and shared practice focusing on student achievement – Political and public policy aspect • Collaboration and shared practice focusing on student achievement – Socio-cultural aspect

	<ul style="list-style-type: none"> • Collaboration and shared practice focusing on student achievement – Technological aspect
5) Supportive conditions S-O S-T W-O W-T	(Strength-Opportunity) <ul style="list-style-type: none"> • Structural support – Technological aspect • Structural support – Political and public policy aspect • Structural support – Socio-cultural aspect (Strength-Threat) <ul style="list-style-type: none"> • Structural support – Economic aspect (Weakness-Opportunity) <ul style="list-style-type: none"> • People’s capacities – Technological aspect (Weakness-Threat) <ul style="list-style-type: none"> • People’s capacities – Economic aspect • People’s capacities – Political and public policy aspect • People’s capacities – Socio-cultural aspect

The first draft of the management strategies to create PLCs of schools under the BMA is produced based on the research findings of the strengths, weaknesses, opportunities and threats with the PNImodified. The steps are as follows:

3.1 The formulated strategies based on the conceptual framework of the attributes of the PLCs of schools are prioritised by the PNImodified as follows: 1) collaboration and shared practice focusing on improving student achievement 2) collective learning through inquiries, reflective dialogues and application of learning 3) supportive conditions 4) shared vision, mission and goals and 5) shared leadership and shared decision-making

3.2 The formulated sub-strategies based on the components of each attribute of the PLCs of schools are prioritised by the PNImodified as follows:

3.2.1 The collaboration and shared practice focusing on improving the student achievement includes two subcomponents as follows: 1) the coaching practice 2) the peer observation and giving constructive feedback to improve student achievement

3.2.2 The collective learning through inquiries, reflective dialogues and application of learning includes two components as follows: 1) the collective learning through making continuous inquiries and reflective discussion 2) the application of knowledge and ideas learned from the collective learning

3.2.3 The supportive conditions includes two components as follows: 1) the structural support and 2) the people's capacities

However, the shared vision, mission and goals and the shared leadership do not have subcomponents.

3.3 The procedures are defined based on the analysis of the internal and external environments as follows:

3.3.1 The external environment includes the political and public policy, the economic, the socio-cultural and the technological aspects.

3.3.2 The internal environment includes the attributes of the PLCs which are the following: 1) the shared vision, mission and goals 2) the shared leadership and shared decision-making 3) the collective learning through inquiries, reflective dialogues and application of learning 4) the collaboration and shared practice focusing on student achievement and 5) the supportive conditions .

The main, minor strategies and procedures are displayed in the table 25 and 26.

Table 25 The first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration based on the PNI modified.

SWOT Matrix	Main Strategies	Minor Strategies
WT	1. School Management reform to create professional learning communities of schools under the BMA by promoting the collaborative work culture and shared practice	1.1: Develop mentor teachers' skills in coaching, guiding and working collaboratively with mentees focusing on student assessment and evaluation. 1.2: Develop mentor teachers' skills in coaching, guiding and working collaboratively with mentees focusing on the teacher professional development programme that promotes student achievement. 1.3: Develop teachers' skills in observing lessons and giving constructive feedbacks to colleagues to improve the student assessment methods and criteria. 1.4: Develop teachers' skills in observing lessons and giving constructive feedbacks to colleagues to improve the implementation of the school curriculum and the instruction.
WO,WT	2. School management reform to create professional learning communities of schools under the BMA by promoting the collective learning through inquiries, reflective dialogues and application of learning	2.1: Develop teachers' collective learning skills through inquiries and reflective dialogues about participatory approaches to the teacher professional development. 2.2: Develop teachers' collective learning skills through inquiries and reflective dialogues about improving the school curriculum. 2.3: Promote the teachers' application of learning to improve the instructional plans and the students' learning experiences. 2.4: Promote the teachers' application of learning to improve the school curriculum

SO,ST, WO,WT	3. School management reform to create professional learning communities of schools under the BMA by promoting the supportive conditions to develop people's capacities and to increase the effectiveness of the structural conditions	3.1: Increase school administrators' and teachers' capacities in developing the school curriculum of the 21st century 3.2: Increase teachers' capacities in developing the students' assessment methods and criteria to be aligned with the 21st school curriculum 3.3: Increase the effectiveness of the structural conditions to support the teacher professional development 3.4: Increase the effectiveness of the structural conditions to support the development of the school curriculum of the 21st century
SO,ST	4. School management reform to create professional learning communities of schools under the BMA by raising the quality of shared vision, mission and goals	4.1: Align the participatory approaches to the teacher professional development with the school vision, mission and goals. 4.2: Align the practice of the student assessment and evaluation with the school vision, mission and goals.
SO,ST	5. School management reform to create professional learning communities of schools under the BMA by increasing the capacities of shared leadership and shared decision-making	5.1: Enhance the teachers' leadership and authority in leading the teacher professional development to focus on the student achievement 5.2: Enhance the teachers' leadership and authority in improving the student assessment and evaluation

Based on the table 25, management strategies to create professional learning communities of schools under the BMA obtained from the SWOT Matrix analysis include five main strategies and sixteen minor strategies; the types of strategies include one WT, one WO,WT, one SO,ST,WO,WT and two SO,ST strategies.

Table 26 The first draft of main, minor strategies and procedures of management to create professional learning communities of schools under the Bangkok Metropolitan Administration

<p>Main Strategy 1 (WT)</p>	<p>School Management reform to create professional learning communities of schools under the BMA by promoting the collaborative work culture and shared practice</p>
<p>Minor Strategy 1.1</p>	<p>Develop mentor teachers' skills in coaching, guiding and working collaboratively with mentees focusing on student assessment and evaluation.</p>
<p>Procedure:</p>	<ol style="list-style-type: none"> 1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote a mentoring programme that supports the collaborative work of mentor teachers and mentees focusing on student assessment and evaluation and allocates the budget to support the implementation of the programme. 2. All schools under the BMA develop vision, mission and goals to develop the mentor teachers' skills and expertise in coaching, guiding and supporting mentees to develop student assessment methods and criteria; the action plan is as follows: <ol style="list-style-type: none"> 2.1 The school administrators and mentor teachers define teams of mentors and mentees to work collaboratively based on the curriculum areas. 2.2 Mentor teachers and mentees collaboratively identify areas of student assessment and evaluation that mentees need support. 2.3 Mentor teachers are trained with coaching and guiding skills to support mentees on the student assessment and evaluation. 3. All schools provide necessary resources and technology to support the mentor teachers' work performance in coaching, guiding and working collaboratively with their mentees focusing on developing student assessment methods and criteria. 4. All schools under the BMA monitor and evaluate the effectiveness of the mentoring programme, the obstacles and challenges the mentor teachers are facing within and outside the school communities are identified and planned for solutions.

Table 26

Minor Strategy 1.2	Develop mentor teachers' skills in coaching, guiding and working collaboratively with mentees focusing on the teacher professional development programme that promotes student achievement.
Procedure:	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote a mentoring programme that supports the collaborative work of mentor teachers and mentees focusing on the teacher professional development programme that promotes student achievement and allocates the budget to support the implementation of the programme.</p> <p>2. All schools under the BMA develop vision, mission and goals to develop the mentor teachers' skills and expertise in coaching, guiding and supporting mentees to participate in the teacher professional development programme that promotes student achievement ; the action plan is as follows:</p> <p>2.1 The school administrators and mentor teachers define teams of mentors and mentees to work collaboratively based on the curriculum areas.</p> <p>2.2 Mentor teachers and mentees collaboratively identify concerned areas in conducting the student assessment and evaluation that mentees need support with.</p> <p>2.3 Mentor teachers are trained with coaching and guiding skills to support mentees on the teacher professional development required for the student assessment and evaluation.</p> <p>3. All schools under the BMA provide necessary resources and technology to support the mentor teachers' work performance in coaching, guiding and working collaboratively with their mentees focusing on the teacher professional development programme that promotes student achievement.</p> <p>4. All schools under the BMA monitor and evaluate the effectiveness of the mentoring programme, the obstacles and challenges the mentor teachers are facing within and outside the school communities are identified and planned for solutions.</p>

Table 26

Minor Strategy 1.3	Develop teachers' skills in observing lessons and giving constructive feedbacks to colleagues to improve the student assessment methods and criteria.
Procedure:	<ol style="list-style-type: none"> 1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote a critical friend programme that supports the teacher collaboration and peer observation focusing on the student assessment methods and criteria and allocates the budget to support the implementation of the programme. 2. All schools under the BMA develop vision, mission, goals to promote a critical friend programme that supports the teacher collaboration and peer observation focusing on the student assessment methods and criteria; the action plan is as follows: <ol style="list-style-type: none"> 2.1 Teachers develop skills in observing lessons and giving constructive feedback focusing on the student assessment methods and criteria. 2.2 Peer observation focusing on the student assessment and giving constructive feedback are planned and organised weekly. 2.3 Teachers apply the given feedback to improve the student assessment. 3. All schools under the BMA provide necessary resources and technology to support the critical friend programme and peer observation . 4. All schools under the BMA monitor and evaluate the effectiveness of the critical friend programme, the obstacles and challenges the teachers are facing within and outside the school communities are identified and planned for solutions.

Table 26

Minor Strategy 1.4	Develop teachers' skills in observing lessons and giving constructive feedbacks to colleagues to improve the implementation of the school curriculum and the instruction.
Procedure:	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote a critical friend programme and peer observation focusing on improving the implementation of the school curriculum and the instruction and allocates the budget to support the implementation of the programme.</p> <p>2. All schools under the BMA develop vision, mission, goals to promote a critical friend programme and peer observation focusing on improving the implementation of the school curriculum and the instruction; the action plan is as follows:</p> <p>2.1 Teachers develop skills in observing lessons and giving constructive feedback focusing on improving the implementation of the school curriculum.</p> <p>2.2 Peer observation focusing on the implementation of the school curriculum and giving constructive feedback is planned and organised weekly.</p> <p>2.3 Teachers apply the given feedback to improve the implementation of the school curriculum.</p> <p>3. All schools under the BMA provide necessary resources to support the critical friend programme and peer observation including the increase of non-contact time for observation and meetings, the access to technology and teacher's resources and the supply teacher, etc.</p> <p>4. All schools under the BMA monitor and evaluate the effectiveness of the critical friend programme and peer observation, the obstacles and challenges the teachers are facing within and outside the school communities are identified and planned for solutions.</p>
Main Strategy 2 (WO,WT)	School management reform to create professional learning communities of schools under the BMA by promoting the collective learning through inquiries, reflective dialogues and application of learning
Minor Strategy 2.1	Develop teachers' collective learning skills through inquiries and reflective dialogues about participatory approaches to the teacher professional development.

Table 26

Procedure	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote collective learning through inquiries and reflective dialogues focusing on the participatory approaches to the teacher professional development and allocates the budget to support the implementation of the strategy.</p> <p>2. All schools under the BMA develop vision, mission and goals to promote teachers' collective learning through inquiries and reflective dialogues about the participatory approaches to the teacher professional development; the action plan is as follows:</p> <p>2.1 The school administrators and teachers collaboratively reviews, inquire and discuss the details and the rationale of implementing the participatory approaches to the teacher professional development at their schools.</p> <p>2.2 Teachers collectively discuss and reflect on practical procedures of the participatory approaches to the teacher professional development at their schools .</p> <p>3. All schools under the BMA provide necessary resources and technology to support the teachers' collective learning through inquiries and reflective dialogues about the participatory approaches to the teacher professional development.</p> <p>4. All schools under the BMA monitor and evaluate the effectiveness of the teachers' collective learning through inquiries and reflective dialogues about the participatory approaches to the teacher professional development; the obstacles and challenges to the implementation of collective learning through inquiries and reflective dialogues about participatory approaches to the teacher professional development are identified and planned for solutions.</p>
Minor Strategy 2.2	Develop teachers' collective learning skills through inquiries and reflective dialogues about improving the school curriculum.

Table 26

Procedure	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote collective learning through inquiries and reflective dialogues focusing on improving the school curriculum and allocates the budget to support the implementation of the strategy.</p> <p>2. All schools under the BMA develop vision, mission and goals to promote teachers' collective learning through inquiries and reflective dialogues about improving the school curriculum; the action plan is as follows:</p> <p>2.1 The school administrators and teachers collaboratively review, inquire and reflect on the effectiveness of the school curriculum.</p> <p>2.2 Teachers collectively discuss and reflect on reinventing the school curriculum.</p> <p>3. All schools under the BMA provide necessary resources and technology to support the teachers' collective learning through inquiries and reflective dialogues about improving the school curriculum.</p> <p>4. All schools under the BMA monitor and evaluate the effectiveness of the teachers' collective learning through inquiries and reflective dialogues about improving the school curriculum; the obstacles and challenges to the implementation of collective learning through inquiries and reflective dialogues about improving the school curriculum are identified and planned for solutions.</p>
Minor Strategy 2.3	Promote the teachers' application of learning to improve the instructional plans and the students' learning experiences.

Table 26

Procedure	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote the teachers' application of knowledge and ideas gained from the collective learning to improve the instructional plans and the students' learning experiences and allocates the budget to support the implementation of the strategy.</p> <p>2. All schools under the BMA develop vision, mission and goals to promote the teachers' application of knowledge and ideas gained from the collective learning to improve the instructional plans and the students' learning experiences; the action plan is as follows:</p> <p>2.1 The school administrators and teachers collaboratively review, inquire and reflect on the effectiveness of the instructional plans and the students' learning experiences on a weekly basis.</p> <p>2.2 Teachers apply ideas from the reflective discussion to improve the instructional plans and the students' learning experiences.</p> <p>3. All schools under the BMA provide necessary resources and technology to support the the teachers' application of knowledge and ideas gained from the collective learning to improve the instructional plans and the students' learning experiences.</p> <p>4. All schools under the BMA monitor and evaluate the effectiveness of the teachers' application of knowledge and ideas gained from the collective learning to improve the instructional plans and the students' learning experiences; the obstacles and challenges to the teachers' application of learning to improve the instructional plans and the students' learning experiences are identified and planned for solutions.</p>
Minor Strategy 2.4	Promote the teachers' application of learning to improve the school curriculum

Table26

Procedure	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote the teachers' application of knowledge and ideas gained from the collective learning to improve the school curriculum and allocates the budget to support the implementation of the strategy.</p> <p>2. All schools under the BMA develop vision, mission and goals to promote the teachers' application of knowledge and ideas gained from the collective learning to improve the school curriculum; the action plan is as follows:</p> <p>2.1 The school administrators and teachers collaboratively define a curriculum committee to redesign a school curriculum.</p> <p>2.2 The curriculum committee defines an action plan to redesign a school curriculum including objectives, activities, responsible people, and timeframe and success key indicators.</p> <p>3. All schools under the BMA provide necessary resources and technology to support the the teachers' application of learning to improve the school curriculum.</p> <p>4. All schools under the BMA monitor and evaluate the effectiveness of the teachers' application of learning to improve the school curriculum; the obstacles and challenges to the teachers' application of learning to improve the school curriculum are identified and planned for solutions.</p>
Main Strategy 3 (SO,ST, WO,WT)	School management reform to create professional learning communities of schools under the BMA by promoting the supportive conditions to develop people's capacities and to increase the effectiveness of the structural conditions
Minor Strategy3.1	Increase school administrators' and teachers' capacities in developing the school curriculum of the 21st century

Table 26

Procedure	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote the development of school administrators' and teachers' capacities to improve the school curriculum of the 21st century and allocates the budget to support the implementation of the strategy.</p> <p>2. All schools under the BMA develop vision, mission and goals to promote the development of school administrators' and teachers' capacities to improve the school curriculum of the 21st century; the action plan is as follows:</p> <p>2.1 School administrators and teachers develop their knowledge and skills in the curriculum design and development of the 21st century curriculum.</p> <p>2.2 School administrators and teachers make shared decisions in reinventing the school curriculum of the 21st century.</p> <p>2.3 The school administrators and teachers implement, monitor and evaluate the reinvented school curriculum of the 21st century.</p> <p>3. All schools under the BMA provide necessary resources and technology to support the development of teachers' capacities to improve the school curriculum of the 21st century.</p> <p>4. All schools under the BMA monitor and evaluate the effectiveness of the development of teachers' capacities to improve the school curriculum of the 21st century; the obstacles and challenges to the practice are identified and planned for solutions.</p>
Minor Strategy 3.2	Increase teachers' capacities in developing the students' assessment methods and criteria to be aligned with the 21st school curriculum.

Table26

Procedure	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote the development of teachers' capacities in improving the students' assessment methods and criteria to be aligned with the 21st school curriculum and allocates the budget to support the implementation of the strategy.</p> <p>2. All schools under the BMA develop vision, mission and goals to promote the development of teachers' capacities in improving the students' assessment methods and criteria to be aligned with the 21st school curriculum; the action plan is as follows:</p> <p>2.1 School administrators and teachers develop their knowledge and skills in designing the assessment methods and criteria that are aligned with the 21st century curriculum.</p> <p>2.2 School administrators and teachers make shared decisions in redesigning the assessment types and criteria that are aligned with the 21st century curriculum</p> <p>2.3 School administrators and teachers collectively implement the assessment types and criteria that are aligned with the school curriculum of the 21st century and make reports of the student results with the targets set for improving their learning in the future.</p> <p>2.4 Teachers collectively monitor and evaluate the effectiveness of the assessment methods and criteria that are aligned with the school curriculum of the 21st century.</p> <p>3. All schools under the BMA provide necessary resources and technology to support the development of teachers' capacities to improve the student assessment methods and criteria that are aligned with the school curriculum of the 21st century.</p> <p>4. All schools under the BMA monitor and evaluate the effectiveness of the development of teachers' capacities to improve the student assessment methods and criteria that are aligned with the school curriculum of the 21st century; the obstacles and challenges to the practice are identified and planned for solutions.</p>
Minor Strategy 3.3	Increase the effectiveness of the structural conditions to support the teacher professional development

Table26

Procedure	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to increase the effectiveness of the structural conditions to support the teacher professional development and allocates the budget to support the implementation of the strategy.</p> <p>2.All schools under the BMA develop vision, mission and goals to increase the effectiveness of the structural conditions to support the teacher professional development; the action plan is as follows:</p> <p>2.1 The school administrators and teachers collaboratively design and plan the teacher professional development programme that focuses on the student results, identify types of structural support and resources needed for the implementation of the programme.</p> <p>2.2 Teachers collectively implement, monitor and evaluate the structural support and resources needed for the implementation of the teacher professional development programme .</p> <p>3. All schools under the BMA provide resources and technology needed to increase the effectiveness of the structural conditions that support the teacher professional development.</p> <p>4. All schools under the BMA monitor and evaluate the effectiveness of the structural conditions that support the teacher professional development; the obstacles and challenges to the practice are identified and planned for solutions.</p>
Minor Strategy 3.4	Increase the effectiveness of the structural conditions to support the development of the school curriculum of the 21st century

Table 26

Procedure	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to increase the effectiveness of the structural conditions to support the development of the school curriculum of the 21st century and allocates the budget to support the implementation of the strategy.</p> <p>2. All schools under the BMA develop vision, mission and goals to increase the effectiveness of the structural conditions to support the development of the school curriculum of the 21st century; the action plan is as follows:</p> <p>2.1 The school administrators and teachers collaboratively plan for the the development of the school curriculum of the 21st century, identify types of structural support and resources needed for the implementation of the programme.</p> <p>2.2 Teachers collectively implement, monitor and evaluate the structural support and resources needed for the development of the school curriculum of the 21st century.</p> <p>3. All schools under the BMA provide resources and technology needed to increase the effectiveness of the structural conditions that support the development of the school curriculum of the 21st century.</p> <p>4. All schools under the BMA monitor and evaluate the effectiveness of the structural conditions that support the development of the school curriculum of the 21st century; the obstacles and challenges to the practice are identified and planned for solutions.</p>
Main Strategy 4 (SO,ST)	School management reform to create professional learning communities of schools under the BMA by raising the quality of shared vision, mission and goals
Minor Strategy 4.1	Align the participatory approaches to the teacher professional development with the school vision, mission and goals.

Table 26

Procedure	<ol style="list-style-type: none"> 1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote the alignment of the teacher professional development with the school vision, mission and goals, allocates the budget to support the implementation of the strategy. 2. All schools under the BMA develop action plans that promote the alignment of the teacher professional development with the school vision, mission and goals as follows: <ol style="list-style-type: none"> 2.1 The school administrators and teachers review and discuss the school purpose and identify key indicators of the teacher professional development programme based on the school vision, mission and goals. 2.2 The school administrators and teachers collaboratively design the teacher professional development programme that is aligned with the school vision, mission and goals. 2.3 The school administrators and teachers monitor the alignment of the implemented teacher professional development programme with the school vision, mission and goals. 3. All schools under the BMA provide necessary resources and technology to support the implementation of aligning the teacher professional development with the school vision, mission and goals. 4. All schools under the BMA evaluate the effectiveness of the alignment of the teacher professional development with the school vision, mission and goals based on the identified key indicators; the obstacles and challenges to the practice are identified and planned for solutions.
Minor Strategy 4.2	Align the practice of the student assessment and evaluation with the school vision, mission and goals.
Procedure	<ol style="list-style-type: none"> 1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to promote the alignment of the student assessment and evaluation with the school vision, mission and goals, allocates the budget to support the implementation of the strategy. 2. All schools under the BMA develop action plans that promote the alignment of the student assessment and evaluation with the school vision, mission and goals as follows: <ol style="list-style-type: none"> 2.1 The school administrators and teachers review and discuss the school purpose and identify key indicators of the student assessment and evaluation based on the school vision, mission and goals.

Table 26

Procedure	<p>2.2 The school administrators and teachers collaboratively design the student assessment and evaluation that is aligned with the school vision, mission and goals.</p> <p>2.3 The school administrators and teachers monitor the alignment of the practice of the student assessment and evaluation with the school vision, mission and goals.</p> <p>3. All schools under the BMA provide necessary resources and technology to support the alignment of the practice of the student assessment and evaluation with the school vision, mission and goals.</p> <p>4. All schools under the BMA evaluate the effectiveness of the alignment of the student assessment and evaluation with the school vision, mission and goals based on the identified key indicators; the obstacles and challenges to the practice are identified and planned for solutions.</p>
Main Strategy 5 (SO,ST)	School management reform to create professional learning communities of schools under the BMA by increasing the capacities of shared leadership and shared decision-making
Minor Strategy 5.1	Enhance the teachers' leadership and authority in leading the teacher professional development to focus on the student achievement
Procedure	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to enhance the teachers' leadership and authority in leading the teacher professional development to focus on the student achievement and allocates the budget to support the implementation of the strategy.</p> <p>2. All schools under the BMA develop vision, mission and goals to enhance the teachers' leadership and authority in leading the teacher professional development to focus on the student achievement; the action plan includes the following:</p> <p>2.1 The school administrators and teachers clearly define the scope of teacher leaders' roles and responsibilities in leading the teacher professional development.</p>

Table26

Procedure	<p>2.2 The teacher leaders collectively analyse and identify the areas of student learning needs and organise the required professional development that impact the student achievement.</p> <p>2.3 The school administrators support the teacher-led workshops organised by the teacher leaders.</p> <p>3. All schools under the BMA provide necessary resources and technology to support the teacher leaders' authority and the teacher-led workshops.</p> <p>4. All schools under the BMA evaluate the effectiveness of the teacher leadership in leading the teacher professional development to improve the student achievement; the obstacles and challenges to the practice are identified and planned for solutions.</p>
Minor Strategy 5.2	Enhance the teachers' leadership and authority in improving the student assessment and evaluation
Procedure	<p>1. Department of Education, Bangkok Metropolitan Administration establishes a policy for all schools under the BMA to enhance the teachers' leadership and authority in developing the student assessment and evaluation and allocates the budget to support the implementation of the strategy.</p> <p>2. All schools under the BMA develop vision, mission and goals to enhance the teachers' leadership and authority in developing the student assessment and evaluation; the action plan is as follows:</p> <p>2.1 The school administrators and teachers clearly define the scope of teacher leaders' roles and responsibilities in developing the student assessment and evaluation</p> <p>2.2 The teacher leaders collectively analyse the students' achievement results and the areas of students' learning needs.</p> <p>2.3 The teacher leaders lead the teachers' revision and improvement of the student assessment tools, methods and criteria to be aligned with the school curriculum and instructional objectives,</p> <p>2.4 The teacher leaders organise and implement the remedial courses to support students' learning needs.</p> <p>2.5 The teacher leaders are trained to lead and support other teachers to help the students with special needs.</p> <p>3. All schools under the BMA provide necessary resources and technology to support the teacher leaders' authority in developing the student assessment and evaluation.</p> <p>4. All schools under the BMA evaluate the effectiveness of the teacher leadership in developing the student assessment and evaluation; the obstacles and challenges to the practice are identified and planned for solutions.</p>

- 4.3.2 The individual specialists and stakeholders examine the suitability and feasibility of the first draft of management strategies to create professional learning communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA).

The results of the examination on the suitability and feasibility of the first draft of management strategies to create PLCs of schools under the BMA by the individual specialists and stakeholders are presented as follows:

Table 27 The status of the specialists and stakeholders who examine the suitability and validity of the first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration.

Item	Status of specialists/stakeholders	Number	Percentage
1	Educational Administration Specialist from the Ministry of Education	2	10
2	Educational Administration Specialist	6	30
3	Education Specialists	6	30
4	School Administrators of Bangkok Metropolitan Administration	2	10
5	School Teachers of Bangkok Metropolitan Administration	4	20
	Total	20	100

Based on the table 27, there are twenty specialists including stakeholders who examine the suitability and feasibility of the first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration(BMA). Two of them are educational administration specialists from the Ministry of Education, six of them are educational administration specialists, six of them are education specialists, two of them are administrators of schools under the BMA and four of them are teachers of schools under the BMA.

Table 28 The results of the examination on the suitability and feasibility of the first draft of main and minor strategies of management to create professional learning communities of schools under the Bangkok Metropolitan Administration by the individual specialists and stakeholders are as follows:

Main Strategy	Suitability			Feasibility		
	\bar{X}	S.D.	Results	\bar{X}	S.D.	Results
1. School Management reform to create professional learning communities of schools under the BMA by promoting the collaborative work culture and shared practice	4.67	.50	highest	4.44	.88	high
2. School management reform to create professional learning communities of schools under the BMA by promoting the collective learning through inquiries, reflective dialogues and application of learning	4.44	1.01	high	4.33	1.00	high
3. School management reform to create professional learning communities of schools under the BMA by promoting the supportive conditions to develop people's capacities and to increase the effectiveness of the structural conditions	4.44	1.01	high	4.33	1.32	high
4. School management reform to create professional learning communities of schools under the BMA by raising the	4.67	.50	highest	4.67	.50	highest

Main Strategy	Suitability			Feasibility		
	\bar{X}	S.D.	Results	\bar{X}	S.D.	Results
quality of shared vision, mission and goals						
5. School management reform to create professional learning communities of schools under the BMA by increasing the capacities of shared leadership and shared decision-making	4.78	.44	highest	4.44	.73	high
Total	4.60	.66	highest	4.44	.84	high

Based on the table 28, the findings on the main strategies in overall reveal that the suitability is at a highest level ($\bar{X}= 4.60$, S.D = .66) and the feasibility is at a high level ($\bar{X}= 4.44$, S.D = .84). When considering each strategy, the fifth strategy, school management reform to create professional learning communities of schools under the BMA by increasing the capacities of shared leadership and shared decision-making, has the suitability at a highest level ($\bar{X}= 4.78$, S.D = .44) and the feasibility at a high level ($\bar{X}= 4.44$, S.D = .73), then the first strategy, school management reform to create professional learning communities of schools under the BMA by promoting the collaborative work culture and shared practice, has the suitability at a highest level ($\bar{X}= 4.67$, S.D = .50) and the feasibility at a high level ($\bar{X}= 4.44$, S.D = .88). Next, the fourth strategy, school management reform to create professional learning communities of schools under the BMA by raising the quality of shared vision, mission and goals, has the suitability at a highest level ($\bar{X}= 4.67$, S.D = .50) and the feasibility at a highest level ($\bar{X}= 4.67$, S.D = .50), and the second strategy, school management reform to create professional learning communities of schools under the BMA by promoting the collective learning through inquiries, reflective dialogues and application of learning,

has the suitability at a high level (\bar{X} = 4.44, S.D = 1.01) and the feasibility at a high level(\bar{X} = 4.33, S.D = 1.00). Next, the third strategy, school management reform to create professional learning communities of schools under the BMA by promoting the supportive conditions to develop people's capacities and to increase the effectiveness of the structural conditions , has the suitability at a high level (\bar{X} = 4.44, S.D = 1.01) and the feasibility at a highest level(\bar{X} = 4.33, S.D = 1.32) respectively.

Table 29 The results of the examination on the suitability and feasibility of the first draft of minor strategies of management to create professional learning communities of schools under the Bangkok Metropolitan Administration by the individual specialists and stakeholders are as follows:

Main and Minor Strategies	Suitability			feasibility		
	\bar{X}	S.D.	Results	\bar{X}	S.D.	Results
1. School Management reform to create professional learning communities of schools under the BMA by promoting the collaborative work culture and shared practice						
1.1: Develop mentor teachers' skills in coaching, guiding and working collaboratively with mentees focusing on student assessment and evaluation.	4.67	.50	highest	4.56	.73	highest
1.2: Develop mentor teachers' skills in coaching, guiding and working collaboratively with mentees focusing on the teacher professional development programme that promotes student achievement.	4.67	.50	highest	4.56	.73	highest
1.3: Develop teachers' skills in observing lessons and giving constructive feedbacks to colleagues to improve the student assessment methods and criteria.	4.33	.71	high	4.00	1.12	high
1.4: Develop teachers' skills in observing lessons and giving constructive feedbacks to colleagues to improve the implementation of the school curriculum and the instruction.	4.33	.71	high	4.11	.93	high
Total	4.50	.50	highest	4.31	.77	high
2. School management reform to create professional learning communities of schools under the BMA by promoting the collective learning through inquiries, reflective dialogues and application of learning						

Main and Minor Strategies	Suitability			feasibility		
	\bar{X}	S.D.	Results	\bar{X}	S.D.	Results
2.1: Develop teachers' collective learning skills through inquiries and reflective dialogues about participatory approaches to the teacher professional development.	4.44	1.01	high	4.33	1.00	high
2.2: Develop teachers' collective learning skills through inquiries and reflective dialogues about improving the school curriculum.	4.67	.50	highest	4.44	1.01	high
2.3: Promote the teachers' application of learning to improve the instructional plans and the students' learning experiences.	4.67	.50	highest	4.11	1.36	high
2.4: Promote the teachers' application of learning to improve the school curriculum	4.44	1.01	high	4.33	1.32	high
Total	4.56	.73	highest	4.31	1.14	high
School management reform to create professional learning communities of schools under the BMA by promoting the supportive conditions to develop people's capacities and to increase the effectiveness of the structural conditions						
3.1 Increase school administrators' and teachers' capacities in developing the school curriculum of the 21st century	4.44	1.01	high	4.22	1.39	high
3.2: Increase teachers' capacities in developing the students' assessment methods and criteria to be aligned with the 21st school curriculum	4.56	.73	highest	4.67	.50	highest
3.3: Increase the effectiveness of the structural conditions to support the teacher professional development	4.67	.50	highest	4.44	.73	high
3.4: Increase the effectiveness of the structural conditions to support the development of the school curriculum of the 21st century	4.67	.50	highest	4.56	.53	highest
Total	4.58	.66	highest	4.47	.73	high
School management reform to create professional learning communities of schools under the BMA by raising the quality of shared vision, mission and goals						
4.1 Align the participatory approaches to the teacher professional development with the school vision, mission and goals.	4.67	.50	highest	4.33	.87	high
4.2: Align the practice of the student assessment and evaluation with the school vision	4.67	.50	highest	4.56	.73	highest
Total	4.67	.50	highest	4.44	.77	high
5. School management reform to create professional learning communities of schools under the BMA by increasing the capacities of shared leadership and shared decision-making						

Main and Minor Strategies	Suitability			feasibility		
	\bar{X}	S.D.	Results	\bar{X}	S.D.	Results
5.1: Enhance the teachers' leadership and authority in leading the teacher professional development to focus on the student achievement	4.44	.73	high	4.44	.88	high
5.2: Enhance the teachers' leadership and authority in improving the student assessment and evaluation	4.56	.73	highest	4.67	.50	highest
Total	4.50	.71	highest	4.56	.68	highest

Based on the table 26, the findings on the minor strategies in overall reveal that the suitability is at a highest level (\bar{X} = 4.56, S.D = .62) and the feasibility is at a high level (\bar{X} = 4.42, S.D = .82).

4.3.3. The examination of the suitability and feasibility of the second draft of management strategies to create professional learning of schools under the Bangkok Metropolitan Administration by the focus group which is summarised into details as follows:

1) The suitability of the second draft of management strategies to create professional learning of schools under the Bangkok Metropolitan Administration

All members of the focus group including educational administration specialists, education specialists and stakeholders agree that the main and minor strategies are suitable and comprehensive. However, the procedures should include more details particularly for the collaboration and shared practice which is found to be the weakest; the researcher was advised to have more clear details on how the collaboration and shared practice should be promoted or improved so that the schools can bring this aspect into practice.

Therefore, the researcher has added more detailed information on the procedures under the item number 2 of all minor strategies.

2) The feasibility of the second draft of management strategies to create professional learning of schools under the Bangkok Metropolitan Administration

At first, the procedures state that the schools organise the teacher professional development and allocate budget to support the activities; however, a stakeholder who works at a school under the Bangkok Metropolitan Administration has advised that the management of schools under the BMA are not school-based; they have to follow the BMA policies and must get budget and approval from the Department of Education in order to implement the school programme including the teacher professional development programme.

Therefore, the researcher revised the procedures for the Department of Education of the BMA to establish policies and to allocate the budget to all schools under the BMA, then the school management will execute the strategies.

However, the research would recommend that Department of Education of the BMA should empower the school administrators and the teachers, they should have autonomy and be able to exercise their leadership to make collective decisions on the school programmes that impact student achievement.

4.3.4 The second draft and the final version of the management strategies of schools under the BMA

The second draft of the management strategies of schools under the BMA has been revised again and published for a final version. The final version has later been reviewed by the dissertation committee and the researcher was advised to adjust some content. The details of the final version is displayed in the table 30.

Table 30 The final version of management strategies and procedures to create professional learning of schools under the Bangkok Metropolitan Administration

Strategy 1	To promote collaborative culture and shared practice through coaching practices and peer observation.
Sub-Strategy 1.1	Mentor teachers coach and support mentees in developing the student assessment methods and criteria.
Procedure	
Planning	1. Department of Education communicates a policy of promoting collaborative culture and shared practice to school directors and educational supervisors; the budget is allocated to all BMA schools.
	2. The school administrator team including School Director and Deputy School Directors plan the implementation of the policy through involvement of all teachers in defining shared vision, mission and goals and define the mentor teachers' roles, responsibilities and incentives for the post.
Implementing	3. The school administrator team prepare and develop mentor teachers as follows: 3.1 to increase the mentor teachers' capacities through the training and development of coaching skills in two aspects: 3.1a. to develop coaching skills in the development of student assessment methods and criteria. 3.1b. to build motivation and encouragement of the team 3.2 to provide structural support to mentor teachers' work performance including 3.2a. to reduce teaching loads and allocate time for meetings and observation 3.2b. to provide technological support and necessary resources
	4. The mentor teachers coach their assigned team of mentees.
	5. The school administrator team and educational supervisors observe coaching practices to support the mentees' collaborative development of student assessment methods and criteria and give feedback to the mentor teachers.
Evaluation	6. The school administrator team, the educational supervisors and the mentor teachers collectively evaluate the coaching practices and identify key areas of success and concerns for improvement including the obstacles and challenges the schools are facing within and outside the school communities.

Table30

Strategy 1	To promote collaborative culture and shared practice through coaching practices and peer observation.
Sub-Strategy 1.2	Mentor teachers coach and support mentees on their professional development that promotes student achievement.
Procedure	
Planning	1. The school administrator team and mentor teachers develop the teachers' collaborative, continuing professional development (CPD) programme focusing on the student achievement.
Implementing	2. The school administrator team provide structural support to mentor teachers including time and necessary resources to conduct meetings and coaching on the the teachers' collaborative CPD.
	3. The mentor teachers conduct discussions to guide their mentees to analyse students' learning results, to identify learning targets for improvement and to collaboratively set performance management targets to improve student achievement through their CPD.
Evaluation	4. The school administrator team, educational supervisors and mentor teachers evaluate the coaching practices to guide the teachers' professional development that supports students' learning.
	5. The school administrator team, educational supervisors and mentor teachers plan to improve the coaching practices to guide the teachers' professional development that supports students' learning.

Table30

Strategy 1	To promote collaborative culture and shared practice through coaching practices and peer observation.
Sub-Strategy 1.3	Teachers observe colleagues' teaching practices and give constructive feedback to improve the student assessment and evaluation.
Procedure	
Planning	1. The school administrator team and the mentor teachers plan the training and coaching on the teachers' professional observation of colleagues' lessons and giving constructive feedbacks to improve the student assessment and evaluation.
Implementing	2. The mentor teachers conduct guided discussions to coach mentees to review and use the school's observation framework of the school to evaluate the strength and areas for improvement of colleagues' lessons focusing on the student assessment and evaluation.
	3. The lesson observation is conducted consisting of four parts: 1) a pre-observation meeting of a mentor teacher, a mentee and an observed teacher to discuss the objective, the activities and the outcomes of the lesson. 2) the lesson observation by the mentor teacher and the mentee 3) post-observation meeting of the mentor teacher and the mentee to discuss their observation 4) post-observation meeting of the mentor teacher, the mentee and the observed teacher to discuss the feedback of the observation focusing on improving student assessment and evaluation.
	4. The school administrator team provide structural support including time and necessary resources for meetings and observing lessons.
Evaluation	5. The school administrator team and mentor teachers evaluate the collaborative critical friend practice focusing on improving student assessment and evaluation and plan to improve the teachers' lesson observation skills.

Table30

Strategy 1	To promote collaborative culture and shared practice through coaching practices and peer observation.
Sub-Strategy 1.4	Teachers observe colleagues' teaching practices and give constructive feedback to improve the instruction and students' learning experiences.
Procedure	
Planning	1. The school administrator team and the mentor teachers plan the training and coaching on the teachers' professional observation of colleagues' lessons and giving constructive feedbacks to improve the instruction and students' learning experiences.
Implementing	2. The mentor teachers conduct guided discussions to coach mentees to review and use the school's observation framework to evaluate the strength and areas for improvement of colleagues' lessons focusing on the instruction and students' learning experiences.
	3. The lesson observation is conducted consisting of four parts: 1) a pre-observation meeting of a mentor teacher, a mentee and an observed teacher to discuss the objective, the activities and the outcomes of the lesson. 2) the lesson observation by the mentor teacher and the mentee 3) post-observation meeting of the mentor teacher and the mentee to discuss their observation 4) post-observation meeting of the mentor teacher, the mentee and the observed teacher to discuss the feedback of the observation focusing on improving the instruction and students' learning experiences.
	4. The school administrator team provide structural support including time and necessary resources for meetings and observing lessons.
Evaluation	5. The school administrator team and mentor teachers evaluate the collaborative critical friend practice focusing on improving the instruction and students' learning experiences.

Table30

Strategy 2	To promote the collective learning through inquiries, reflective dialogues and application of learning.
Sub-Strategy 2.1	Teachers collectively learn through inquiries and reflective dialogues about the participatory approaches to the teacher professional development.
Procedure	
Planning	1. Department of Education communicates a policy of promoting the collective learning through inquiries, reflective dialogues and application of learning to school directors and educational supervisors; the budget is allocated to all BMA schools.
	2. The school administrator team plan the implementation of the policy in promoting collective learning through involvement of all teachers and supporting the teachers' collective discussion and learning about the participatory approaches to the teacher professional development at their schools.
Implementing	3. The teachers attend various types of professional development programmes that support students' learning.
	4. The teachers collectively discuss their learning, inquire and discuss ideas acquired from the professional development programmes.
Evaluating	5. The school administrator team evaluate the effectiveness of the teachers' collective learning through inquiries and reflective dialogues about the participatory approaches to the teacher professional development and plan for improvement.

Table30

Strategy 2	To promote the collective learning through inquiries, reflective dialogues and application of learning.
Sub-Strategy 2.2	Teachers collectively learn through inquiries and reflective dialogues about improving the school curriculum.
Procedure	
Planning	The school administrator team and the teachers collaboratively plan the school curriculum review throughout the academic year.
Implementing	The teachers, grouped by grade levels and subjects, meet to analyse the students' learning results, to identify areas that need improvement.
	The teachers' teams review the curriculum content, inquire among themselves, share and reflect on areas that the students would need to further develop to improve their learning.
	4. The teachers' teams explore the 21st century curriculum and discuss the suitable topics and content needed to be embedded in the school curriculum to enhance the students' and learning experiences. The ICT is used to manage the information learned from the teams' discussion and sharing.
Evaluation	5. The school administrator team evaluate the effectiveness of the teachers' collective learning through inquiries and reflective dialogues about improving the school curriculum.

Table30

Strategy 2	To promote the collective learning through inquiries, reflective dialogues and application of learning.
Sub-Strategy 2.3	Teachers apply their learning to improve their instruction and students' learning experiences.
Procedure	
Planning	The school administrator team and the teachers collaboratively plan to improve of the instructional plans and the students' learning experiences.
Implementing	The school administrators and the teachers collaboratively review, inquire and reflect on the effectiveness of the instructional plans and the students' learning experiences on a weekly basis.
	The teachers apply ideas from the reflective discussion to improve the instructional plans and the students' learning experiences.
	The teachers share practices on "What went well?" and strategies employed in the teaching and learning.
	The teachers observe colleagues' lessons and give constructive feedbacks about the students' learning experiences.
Evaluation	The school administrators and educational supervisors evaluate the effectiveness of the instructional plans and the students' learning experiences.

Table30

Strategy 2	To promote the collective learning through inquiries, reflective dialogues and application of learning
Sub-Strategy 2.4	Teachers apply their learning to improve the school curriculum.
Procedure	
Planning	The school administrator team and the teachers collaboratively establish a plan to improve the school curriculum.
Implementing	The school administrators and teachers collaboratively establish a curriculum committee to review and redesign the school curriculum.
	The school administrators organise meetings for the curriculum committee to collaboratively review, inquire and reflect on the effectiveness of the school curriculum.
	The curriculum committee study learning content and skills that would enhance students' learning experiences to be embedded in the school curriculum.
	The curriculum committee applies ideas and information acquired from the reflective discussion and the studies to adjust the school curriculum.
Evaluation	The school administrators and teachers collaboratively evaluate the effectiveness of the school curriculum and make further adjustment as necessary.

Table30

Strategy 3	To develop the people's capacities and increase the effectiveness of the structural support.
Sub-Strategy 3.1	Teachers increase their capacities in developing the school curriculum of the 21st century.
Procedure	
Planning	Department of Education communicates a policy of promoting the supportive conditions to develop people's capacities and to increase the effectiveness of the structural support to school directors and educational supervisors; the budget is allocated to all BMA schools.
	The school administrator team plan the implementation of the policy through involvement of all teachers in defining shared vision, mission and goals.
Implementing	The school administrators and teachers set their performance management targets on the development of the 21st century curriculum.
	The school administrators and teachers develop their knowledge and skills in the curriculum design and development of the 21st century curriculum.
	The school administrators and teachers collectively design and reinvent the school curriculum of the 21st century.
Evaluation	The school curriculum of the 21st century is implemented and evaluated by the school administrators and all teachers.

Table30

Strategy 3	To develop the people's capacities and increase the effectiveness of the structural support.
Sub-Strategy 3.2	Teachers increase their capacities in developing the students' assessment methods and criteria to be aligned with the 21st school curriculum.
Procedure	
Planning	The school administrators and teachers collectively plan for developing the assessment methods and criteria that are aligned with the 21st century. Curriculum
Implementing	The school administrators and teachers set performance management targets to develop their knowledge and skills in designing the assessment methods and criteria that are aligned with the 21st century. curriculum.
	3. The school administrators support the teachers' collective development of the assessment methods and criteria that are aligned with the 21st century curriculum.
	4. The teachers implement the assessment methods and criteria that are aligned with the school curriculum of the 21st century.
Evaluation	5. The the assessment methods and criteria of the 21st century curriculum is evaluated on its effectiveness by the school administrators and all teachers.

Table30

Strategy 3	To develop the people's capacities and increase the effectiveness of the structural support.
Sub-Strategy 3.3	The school administrators increase the effectiveness of the structural support required for the promotion of the teacher professional development.
Procedure	
Planning	The school administrators and teachers collectively design and plan the teacher professional development programme in response to the students' needs and identify types of structural support and resources needed for the implementation of the programme;
Implementing	<p>2.The school administrators may arrange the structural support needed including</p> <p>2.1 setting time during the school hours for teachers to meet and collaboratively plan the teacher professional development programme</p> <p>2.2 creating timetables for classroom observation to learn about best practices</p> <p>2.3 reducing teaching loads to enable teachers to have time to engage in reflective dialogues and collectively learn how to support students' learning</p> <p>2.4 providing necessary resources for learning including the ICT, textbooks and videos, etc.</p> <p>2.5 supporting the teachers' attendance or participation in educational seminars, conferences, workshops that professionally develop teachers, etc.</p> <p>2.6 arranging time for teachers who have opportunities to attend the seminars or workshops to share their learning to other teachers when they return to the schools</p> <p>2.7 encouraging the application of new ideas learnt to their teaching</p>
Evaluation	The school administrators and the teachers collectively monitor and evaluate the structural support and resources needed for the implementation of the teacher professional development programme .

Table30

Strategy 3	To develop the people's capacities and increase the effectiveness of the structural support.
Sub-Strategy 3.4	The school administrators increase the effectiveness of the structural support required for the development of the school curriculum of the 21st century.
Procedure	
Planning	The school administrators and teachers collectively design and plan the development of the the 21st century curriculum. and identify types of structural support and resources needed for the process of the curriculum development.
Implementing	The school administrators may arrange the structural support needed including 2.1 establishing a curriculum committee to review the curriculum of the 21st century 2.2 setting time during the school hours for teachers to meet and collaboratively plan the curriculum development 2.3 reducing teaching loads to enable teachers to have time to engage in discussion and collectively learn about the the 21st century curriculum 2.4 supporting the teachers' attendance or participation in educational seminars, conferences, workshops relating to the21st century curriculum, etc. 2.5 providing necessary resources for learning and managing information including the ICT, textbooks and videos, etc. 2.6 allowing the curriculum committee to share the information relevant to the 21st century curriculum to other teachers in order for them to make shared decision on the development of content, knowledge and skills needed to support the students 2.7 supporting the teachers' shared decision and enable the development and implementation of the curriculum of the 21st century
Evaluation	The school administrators and the teachers collectively monitor and evaluate the structural support and resources needed for the implementation of the 21st curriculum development .

Table30

Strategy 4	To raise the quality of shared vision, mission and goals
Sub-Strategy 4.1	School administrators support the alignment of the teachers' continuing professional development and the shared vision, mission and goals.
Procedure	
Planning	Department of Education communicates a policy of raising the quality of shared vision, mission and goals focusing on improving student achievement to school directors and educational supervisors; the budget is allocated to all BMA schools.
	The school administrator team plan the implementation of the policy through involvement of all teachers in defining shared vision, mission and goals focusing on improving student achievement.
Implementing	The school administrators and teachers review and discuss the school vision and purpose, analyse students' achievement and set directions to improve the students' learning outcomes as stated in the school vision.
	The school administrators and teachers collaboratively design and plan the teacher professional development programme that is in response to the students' needs and aligned with the school vision, mission and goals.
	The school administrators and teachers implement the designed teacher professional development programme.
Evaluation	The teacher professional development programme is evaluated by the school administrators and all teachers to ensure their alignment with the school vision, mission and goals.

Table30

Strategy 4	To raise the quality of shared vision, mission and goals
Sub-Strategy 4.2	School administrators support the alignment of the student assessment and evaluation and the shared vision, mission and goals.
Procedure	
Planning	Department of Education communicates a policy of raising the quality of shared vision, mission and goals focusing on improving student achievement to school directors and educational supervisors; the budget is allocated to all BMA schools.
	The school administrator team plan the implementation of the policy through involvement of all teachers in defining shared vision, mission and goals focusing on improving student learning outcomes.
	The school administrators and teachers review and discuss the school vision and purpose, analyse students' achievement and set directions to improve the students' learning outcomes as stated in the school vision.
Implementing	The school administrators and teachers collaboratively design the development of the student assessment and evaluation methods and criteria that are in response to the students' needs and aligned with the school vision, mission and goals.
	The school administrators and teachers implement the developed student assessment and evaluation methods and criteria.
Evaluation	The student assessment and evaluation methods and criteria are reviewed and evaluated by the school administrators and all teachers to ensure their alignment with the school vision, mission and goals.

Table30

Strategy 5	To increase the teachers' shared leadership capacity and shared decision-making
Sub-Strategy 5.1	Teachers' shared leadership capacity and decision in developing the teacher professional development to focus on the student achievement are promoted.
Procedure	
Planning	Department of Education communicates a policy of enhancing the teachers' leadership and authority in leading the teacher professional development to focus on the student achievement to school directors and educational supervisors; the budget is allocated to all BMA schools.
	The school administrator team plan the implementation of the policy through involvement of all teachers in defining shared vision, mission and goals to enhance the teachers' leadership and authority in leading the teacher professional development.
Implementing	The school administrators and teachers collaboratively define the scope of teacher leaders' roles and responsibilities in leading the teacher professional development.
	The teacher leaders collectively analyse and identify the areas of student learning needs for improvement and organise the teacher professional development that support the students' learning and achievement.
	The school administrators support the teacher-led workshops organised by the teacher leaders.
Evaluation	The school administrators and all teachers evaluate the quality of the teacher-led professional workshops organised by the teacher leaders.

Table30

Strategy 5	To increase the teachers' shared leadership capacity and shared decision-making
Sub-Strategy 5.2	Teachers' shared leadership capacity and decision in developing the student assessment and evaluation are promoted.
Procedure	
Planning	The school administrator team plan the implementation of the policy to enhance the teachers' leadership and authority in improving the student assessment and evaluation.
Implementing	The school administrators support the teacher leaders' decision to collectively review the instructional programme and the assessment tools, methods and criteria which should be aligned with the school curriculum and the instructional objectives.
	The teacher leaders identify areas of the students' learning programme and the assessment tools, methods and criteria that need improvement.
	The school administrators support the teacher leaders' decision to establish teams to collaboratively work on improving the instructional programme and the student assessment.
	The school administrators support the teacher leaders' decision to organise and implement the remedial course to support students' learning needs.
	The school administrators support the teacher professional development that assists the students with special needs.
Evaluation	The school administrators and all teachers evaluate the effectiveness of the teacher leadership in improving the student assessment and evaluation.

Chapter 5

Summary of Research Findings, Discussion and Recommendations

Introduction

The purpose of this research study was 1) to study the current state and desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration 2) to analyse strengths, weaknesses, opportunities and threats of management to create professional learning communities of schools under the Bangkok Metropolitan Administration and 3) to develop management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration.

The research population of the research study included 438 schools under the Bangkok Metropolitan Administration in the academic year 2014-2015. The sample population including 209 schools received a letter of invitation to participate in answering the survey questionnaire. A total of 205 schools (98.09%) responded to the survey, the participants include a school administrator and a teacher from each school; the school administrators and teachers each take part in answering the survey questionnaires based on their willingness, a total of informants are 410 people. The research tools included a survey questionnaire and an evaluation form of the draft of management strategies. The quantitative data analysis of the questionnaire uses the descriptive statistics to identify frequency distribution, percentage, means and standard deviation (S.D.) and the $PNI_{Modified}$. The qualitative data analysis uses the content analysis.

In this chapter, the summary of research findings, discussion and recommendations include the following details:

5.1 Summary of Research Findings

5.1.1 The current state and desired state of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration

5.1.1.1 Based on the analysis of the internal environment, the findings indicated that the overall picture of the current state of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a high level ($\bar{X}=4.10$). When considering each aspect, the shared leadership and shared decision-making has the highest mean value ($\bar{X}= 4.31$), then the shared vision, mission and goals ($\bar{X}= 4.18$), the supportive conditions ($\bar{X}= 4.15$), the collaboration, shared practice ($\bar{X}= 4.04$) and the collective learning through inquiries, reflective dialogues and application of learning ($\bar{X}= 3.99$), respectively.

5.1.1.2 Based on the analysis of the external environment, the findings indicated that the overall picture of the current state of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a moderate level ($\bar{X}= 3.79$). When considering each aspect, the technological factor has a highest mean value ($\bar{X}= 3.91$), then the socio-cultural aspect ($\bar{X}= 3.78$), the political and government policy ($\bar{X}= 3.74$) and the economic aspect ($\bar{X}= 3.72$) respectively.

5.1.1.3 Based on the analysis of the internal environment, the findings indicate that an overall picture of the desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a highest level ($\bar{X}= 4.69$). When considering each aspect, the shared leadership and shared decision-making has the highest mean value ($\bar{X}= 4.72$), then the shared vision, mission and goals ($\bar{X}= 4.71$), the supportive conditions ($\bar{X}= 4.70$), the collaboration and shared practice focusing on improving student achievement ($\bar{X}= 4.69$) and the collective

learning through inquiries, reflective dialogues and application of learning ($\bar{X}= 4.62$) respectively.

5.1.1.4 Based on the analysis of the external environment, the findings indicate that an overall picture of the desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a high level ($\bar{X}= 4.49$). When considering each aspect, the technological factor has a highest mean value ($\bar{X}= 4.57$), then the socio-cultural aspect ($\bar{X}= 4.49$), the economic aspect ($\bar{X}= 4.47$) and the political and government policy ($\bar{X}= 4.45$) respectively.

5.1.2 Strengths, Weaknesses, Opportunities and Threats of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration

5.1.2.1 The strengths of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration include the shared vision, mission and goals obtaining the $PNI_{Modified}$ 0.127 and the shared leadership, shared decision-making obtaining the $PNI_{Modified}$ 0.095 and the structural conditions, a subcomponent of the supportive conditions, obtaining the $PNI_{Modified}$ 0.111.

5.1.2.2 The weaknesses of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration include the collaboration and shared practice focusing on improving student achievement obtaining the highest $PNI_{Modified}$ 0.161 with the two subcomponents consisting of the collaborative work, coaching, mentoring obtaining the $PNI_{Modified}$ 0.163 and the class observation and giving feedbacks obtaining the $PNI_{Modified}$ 0.159. Then the collective learning through inquiries, reflective dialogues and application of learning obtaining the $PNI_{Modified}$, 0.158 with the two subcomponents consisting of the collective learning through inquiries and reflective dialogues on teaching and learning obtaining the $PNI_{Modified}$ 0.161 and the application of learning obtaining the $PNI_{Modified}$ 0.160 and the supportive conditions obtaining the $PNI_{Modified}$ 0.133 with a subcomponent of people's capacities obtaining the $PNI_{Modified}$ 0.152.

5.1.2.3 The opportunity of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration include the technological aspect obtaining the $PNI_{Modified}$ 0.169.

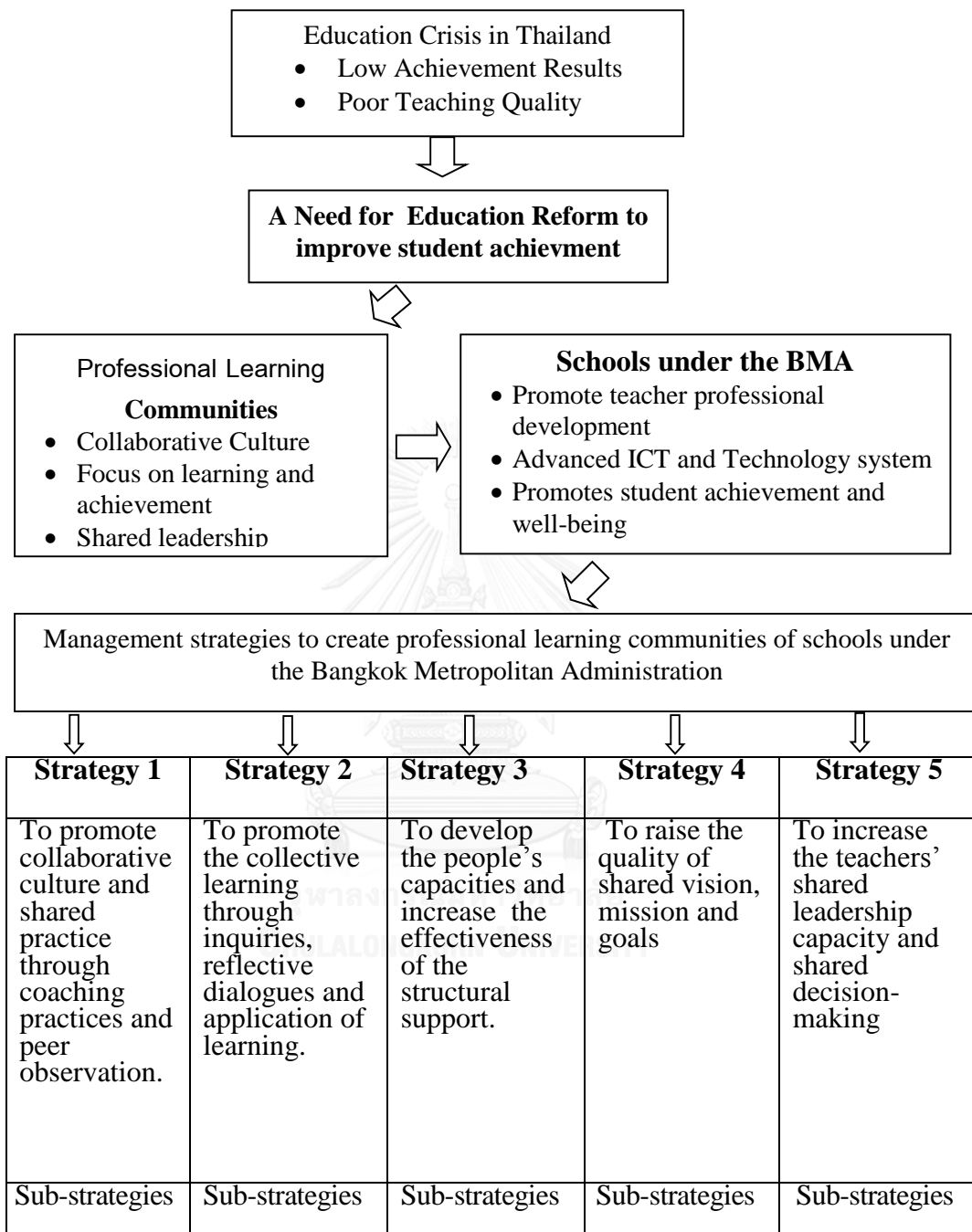
5.1.2.4 The threats of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration include the economic aspect obtaining the highest $PNI_{Modified}$ 0.202, then the political and government policy aspect obtaining the $PNI_{Modified}$ 0.190 and the socio-cultural aspect obtaining the $PNI_{Modified}$ 0.188.

5.1.3 Management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration

Strategic management (Balanced Scorecard Institute, a Strategy Management Group Company, 1998-2014: online) is the comprehensive collection of ongoing activities and processes that organizations use to systematically coordinate and align resources and actions with mission, vision and strategy throughout an organisation. Strategic planning involves decision making on defined management activities of schools which are prioritised; the set of activities direct staff to work towards the schools' goals to achieve the expected outcomes of the future. The budget and resources are allocated to support the strategic plans. Effective strategic planning articulates not only where an organization is going and the actions needed to make progress, but also how it will know if it is successful.

Based on the research findings, the researcher define five main strategies and sixteen minor strategies for the management to create professional learning communities of schools under the Bangkok Metropolitan Administration; the three attributes of the professional learning communities of schools under the BMA which are found to be weaknesses become priorities for the improvement and consist of four minor strategies whereby the two attributes which are found to be strengths consist of two minor strategies; the detailed information is displayed in the figure 9.

Figure 9 Management Strategies to Create Professional Learning of Schools under the Bangkok Metropolitan Administration



1.1: Mentor teachers coach and support mentees in developing the student assessment methods and criteria.	2.1: Teachers collectively learn through inquiries and reflective dialogues about the participatory approaches to the teacher professional development.	3.1: Teachers increase their capacities in developing the school curriculum of the 21st century.	4.1: School administrators support the alignment of the teachers' continuing professional development and the shared vision, mission and goals.	5.1: Teachers' shared leadership capacity and decision in developing the teacher professional development to focus on the student achievement are promoted.
1.2: Mentor teachers coach and support mentees on their professional development that promotes student achievement.	2.2: Teachers collectively learn through inquiries and reflective dialogues about improving the school curriculum.	3.2: Teachers increase their capacities in developing the students' assessment methods and criteria to be aligned with the 21st school curriculum.	4.2: School administrators support the alignment of the student assessment and evaluation and the shared vision, mission and goals.	5.2: Teachers' shared leadership capacity and decision in developing the student assessment and evaluation are promoted.
1.3: Teachers observe colleagues' teaching practices and give constructive feedback to improve the student assessment and evaluation.	2.3: Teachers apply their learning to improve their instruction and students' learning experiences.	3.3: The school administrators increase the effectiveness of the structural support required for the promotion of the teacher professional development.		
1.4: Teachers observe colleagues' teaching practices and give constructive feedback to improve the instruction and students' learning experiences.	2.4: Teachers apply their learning to improve the school curriculum.	3.4: The school administrators increase the effectiveness of the structural support required for the development of the school curriculum of the 21st century.		

School leaders do not only want the effective strategic planning but also want the plans to lead to the improvement of student achievement. However, the strategic plans will not produce good results if they are not put into action. Kotter(2007) states that the failure of transforming strategy into action is due to the unimplemented strategic plans(cited by Douglas B. Reeves, 2009.p.80). The strategic procedures are then defined for action. The details of figure 8 are presented as follows:



Strategy 1: To promote collaborative culture and shared practice through coaching practices and peer observation.

Sub-Strategy 1.1: Mentor teachers coach and support mentees in developing the student assessment methods and criteria.

Procedure:

Planning	Department of Education communicates a policy of promoting collaborative culture and shared practice to school directors and educational supervisors; the budget is allocated to all BMA schools.
	The school administrator team including School Director and Deputy School Directors plan the implementation of the policy through involvement of all teachers in defining shared vision, mission and goals and define the mentor teachers' roles, responsibilities and incentives for the post.
Implementing	The school administrator team prepare and develop mentor teachers as follows: to increase the mentor teachers' capacities through the training and development of coaching skills in two aspects: 3.1a. to develop coaching skills in the development of student assessment methods and criteria. 3.1b. to build motivation and encouragement of the team to provide structural support to mentor teachers' work performance including 3.2a. to reduce teaching loads and allocate time for meetings and observation .2b. to provide technological support and necessary resources
	The mentor teachers coach their assigned team of mentees.
	The school administrator team and educational supervisors observe coaching practices to support the mentees' collaborative development of student assessment methods and criteria and give feedback to the mentor teachers.
Evaluation	The school administrator team, the educational supervisors and the mentor teachers collectively evaluate the coaching practices and identify key areas of success and concerns for improvement including the obstacles and challenges the schools are facing within and outside the school communities.

Sub-Strategy 1.2: Mentor teachers coach and support mentees on their professional development that promotes student achievement.

Procedure:

Planning	The school administrator team and mentor teachers develop the teachers' collaborative, continuing professional development (CPD) programme focusing on the student achievement.
Implementing	The school administrator team provide structural support to mentor teachers including time and necessary resources to conduct meetings and coaching on the the teachers' collaborative CPD.
	The mentor teachers conduct discussions to guide their mentees to analyse students' learning results, to identify learning targets for improvement and to collaboratively set performance management targets to improve student achievement through their CPD.
Evaluation	The school administrator team, educational supervisors and mentor teachers evaluate the coaching practices to guide the teachers' professional development that supports students' learning.
	The school administrator team, educational supervisors and mentor teachers plan to improve the coaching practices to guide the teachers' professional development that supports students' learning.

Sub-Strategy 1.3: Teachers observe colleagues' teaching practices and give constructive feedback to improve the student assessment and evaluation.

Procedure:

Planning	The school administrator team and the mentor teachers plan the training and coaching on the teachers' professional observation of colleagues' lessons and giving constructive feedbacks to improve the student assessment and evaluation.
Implementing	The mentor teachers conduct guided discussions to coach mentees to review and use the school's observation framework of the school to evaluate the strength and areas for improvement of colleagues' lessons focusing on the student assessment and evaluation.
	The lesson observation is conducted consisting of four parts: 1) a pre-observation meeting of a mentor teacher, a mentee and an observed teacher to discuss the objective, the activities and the outcomes of the lesson. 2) the lesson observation by the mentor teacher and the mentee 3) post-observation meeting of the mentor teacher and the mentee to discuss their observation 4) post-observation meeting of the mentor teacher, the mentee and the observed teacher to discuss the feedback of the observation focusing on improving student assessment and evaluation.
	The school administrator team provide structural support including time and necessary resources for meetings and observing lessons.
Evaluation	The school administrator team and mentor teachers evaluate the collaborative critical friend practice focusing on improving student assessment and evaluation and plan to improve the teachers' lesson observation skills.

Sub-Strategy 1.4: Teachers observe colleagues' teaching practices and give constructive feedback to improve the instruction and students' learning experiences.

Procedure:

Planning	The school administrator team and the mentor teachers plan the training and coaching on the teachers' professional observation of colleagues' lessons and giving constructive feedbacks to improve the instruction and students' learning experiences.
Implementing	The mentor teachers conduct guided discussions to coach mentees to review and use the school's observation framework to evaluate the strength and areas for improvement of colleagues' lessons focusing on the instruction and students' learning experiences.
	The lesson observation is conducted consisting of four parts: 1) a pre-observation meeting of a mentor teacher, a mentee and an observed teacher to discuss the objective, the activities and the outcomes of the lesson. 2) the lesson observation by the mentor teacher and the mentee 3) post-observation meeting of the mentor teacher and the mentee 4) post-observation meeting of the mentor teacher, the mentee and the observed teacher to discuss the feedback of the observation focusing on improving the instruction and students' learning experiences.
	The school administrator team provide structural support including time and necessary resources for meetings and observing lessons.
Evaluation	The school administrator team and mentor teachers evaluate the collaborative critical friend practice focusing on improving the instruction and students' learning experiences.

Strategy 2: To promote the collective learning through inquiries, reflective dialogues and application of learning.

Sub-Strategy 2.1: Teachers collectively learn through inquiries and reflective dialogues about the participatory approaches to the teacher professional development.

Procedure:

Planning	Department of Education communicates a policy of promoting the collective learning through inquiries, reflective dialogues and application of learning to school directors and educational supervisors; the budget is allocated to all BMA schools.
	The school administrator team plan the implementation of the policy in promoting collective learning through involvement of all teachers and supporting the teachers' collective discussion and learning about the participatory approaches to the teacher professional development at their schools.
Implementing	The teachers attend various types of professional development programmes that support students' learning.
	The teachers collectively discuss their learning, inquire and discuss ideas acquired from the professional development programmes.
Evaluating	The school administrator team evaluate the effectiveness of the teachers' collective learning through inquiries and reflective dialogues about the participatory approaches to the teacher professional development and plan for improvement.

Sub-Strategy 2.2: Teachers collectively learn through inquiries and reflective dialogues about improving the school curriculum.

Procedure:

Planning	The school administrator team and the teachers collaboratively plan the school curriculum review throughout the academic year.
Implementing	The teachers, grouped by grade levels and subjects, meet to analyse the students' learning results, to identify areas that need improvement.
	The teachers' teams review the curriculum content, inquire among themselves, share and reflect on areas that the students would need to further develop to improve their learning.
	4. The teachers' teams explore the 21st century curriculum and discuss the suitable topics and content needed to be embedded in the school curriculum to enhance the students' and learning experiences. The ICT is used to manage the information learned from the teams' discussion and sharing.
Evaluation	5. The school administrator team evaluate the effectiveness of the teachers' collective learning through inquiries and reflective dialogues about improving the school curriculum.

Sub-Strategy 2.3: Teachers apply their learning to improve their instruction and students' learning experiences.

Procedure:

Planning	The school administrator team and the teachers collaboratively plan to improve of the instructional plans and the students' learning experiences.
Implementing	The school administrators and the teachers collaboratively review, inquire and reflect on the effectiveness of the instructional plans and the students' learning experiences on a weekly basis.
	The teachers apply ideas from the reflective discussion to improve the instructional plans and the students' learning experiences.
	The teachers share practices on "What went well?" and strategies employed in the teaching and learning.
	The teachers observe colleagues' lessons and give constructive feedbacks about the students' learning experiences.
Evaluation	The school administrators and educational supervisors evaluate the effectiveness of the instructional plans and the students' learning experiences.

Sub-Strategy 2.4: Teachers apply their learning to improve the school curriculum.

Procedure:

Planning	The school administrator team and the teachers collaboratively establish a plan to improve the school curriculum.
Implementing	The school administrators and teachers collaboratively establish a curriculum committee to review and redesign the school curriculum.
	The school administrators organise meetings for the curriculum committee to collaboratively review, inquire and reflect on the effectiveness of the school curriculum.
	The curriculum committee study learning content and skills that would enhance students' learning experiences to be embedded in the school curriculum.
	The curriculum committee applies ideas and information acquired from the reflective discussion and the studies to adjust the school curriculum.
Evaluation	The school administrators and teachers collaboratively evaluate the effectiveness of the school curriculum and make further adjustment as necessary.

Strategy 3: To develop the people's capacities and increase the effectiveness of the structural support.

Sub-Strategy 3.1: Teachers increase their capacities in developing the school curriculum of the 21st century.

Procedure:

Planning	Department of Education communicates a policy of promoting the supportive conditions to develop people's capacities and to increase the effectiveness of the structural support to school directors and educational supervisors; the budget is allocated to all BMA schools.
	The school administrator team plan the implementation of the policy through involvement of all teachers in defining shared vision, mission and goals.
Implementing	The school administrators and teachers set their performance management targets on the development of the 21st century curriculum.
	The school administrators and teachers develop their knowledge and skills in the curriculum design and development of the 21st century curriculum.
	The school administrators and teachers collectively design and reinvent the school curriculum of the 21st century.
Evaluation	The school curriculum of the 21st century is implemented and evaluated by the school administrators and all teachers.

Sub-Strategy 3.2: Teachers increase their capacities in developing the students' assessment methods and criteria to be aligned with the 21st school curriculum.

Planning	The school administrators and teachers collectively plan for developing the assessment methods and criteria that are aligned with the 21st century. Curriculum
Implementing	The school administrators and teachers set performance management targets to develop their knowledge and skills in designing the assessment methods and criteria that are aligned with the 21st century. curriculum.
	The school administrators support the teachers' collective development of the assessment methods and criteria that are aligned with the 21st century curriculum.
	The teachers implement the assessment methods and criteria that are aligned with the school curriculum of the 21st century.
Evaluation	The the assessment methods and criteria of the 21st century curriculum is evaluated on its effectiveness by the school administrators and all teachers.

Sub-Strategy 3.3: The school administrators increase the effectiveness of the structural support required for the promotion of the teacher professional development.

Procedure:

Planning	The school administrators and teachers collectively design and plan the teacher professional development programme in response to the students' needs and identify types of structural support and resources needed for the implementation of the programme;
Implementing	2.The school administrators may arrange the structural support needed including 2.1 setting time during the school hours for teachers to meet and collaboratively plan the teacher professional development programme

	<p>2.2 creating timetables for classroom observation to learn about best practices</p> <p>2.3 reducing teaching loads to enable teachers to have time to engage in reflective dialogues and collectively learn how to support students' learning</p> <p>2.4 providing necessary resources for learning including the ICT, textbooks and videos, etc.</p> <p>2.5 supporting the teachers' attendance or participation in educational seminars, conferences, workshops that professionally develop teachers, etc.</p> <p>2.6 arranging time for teachers who have opportunities to attend the seminars or workshops to share their learning to other teachers when they return to the schools</p> <p>2.7 encouraging the application of new ideas learnt to their teaching</p>
Evaluation	<p>3. The school administrators and the teachers collectively monitor and evaluate the structural support and resources needed for the implementation of the teacher professional development programme .</p>

Sub-Strategy 3.4: The school administrators increase the effectiveness of the structural support required for the development of the school curriculum of the 21st century.

Procedure:

Planning	<p>The school administrators and teachers collectively design and plan the development of the the 21st century curriculum. and identify types of structural support and resources needed for the process of the curriculum development.</p>
----------	---

Implementing	<p>The school administrators may arrange the structural support needed including</p> <p>2.1 establishing a curriculum committee to review the curriculum of the 21st century</p> <p>2.2 setting time during the school hours for teachers to meet and collaboratively plan the curriculum development</p> <p>2.3 reducing teaching loads to enable teachers to have time to engage in discussion and collectively learn about the the 21st century curriculum</p> <p>2.4 supporting the teachers' attendance or participation in educational seminars, conferences, workshops relating to the 21st century curriculum, etc.</p> <p>2.5 providing necessary resources for learning and managing information including the ICT, textbooks and videos, etc.</p> <p>2.6 allowing the curriculum committee to share the information relevant to the 21st century curriculum to other teachers in order for them to make shared decision on the development of content, knowledge and skills needed to support the students</p> <p>2.7 supporting the teachers' shared decision and enable the development and implementation of the curriculum of the 21st century</p>
Evaluation	<p>The school administrators and the teachers collectively monitor and evaluate the structural support and resources needed for the implementation of the 21st curriculum development .</p>

Strategy 4: To raise the quality of shared vision, mission and goals

Sub-Strategy 4.1: School administrators support the alignment of the teachers' continuing professional development and the shared vision, mission and goals.

Procedure:

Planning	Department of Education communicates a policy of raising the quality of shared vision, mission and goals focusing on improving student achievement to school directors and educational supervisors; the budget is allocated to all BMA schools.
	The school administrator team plan the implementation of the policy through involvement of all teachers in defining shared vision, mission and goals focusing on improving student achievement.
Implementing	The school administrators and teachers review and discuss the school vision and purpose, analyse students' achievement and set directions to improve the students' learning outcomes as stated in the school vision.
	The school administrators and teachers collaboratively design and plan the teacher professional development programme that is in response to the students' needs and aligned with the school vision, mission and goals.
	The school administrators and teachers implement the designed teacher professional development programme.
Evaluation	The teacher professional development programme is evaluated by the school administrators and all teachers to ensure their alignment with the school vision, mission and goals.

Sub-Strategy 4.2: School administrators support the alignment of the student assessment and evaluation and the shared vision, mission and goals.

Procedure:

Planning	Department of Education communicates a policy of raising the quality of shared vision, mission and goals focusing on improving student achievement to school directors and educational supervisors; the budget is allocated to all BMA schools.
	The school administrator team plan the implementation of the policy through involvement of all teachers in defining shared

	vision, mission and goals focusing on improving student learning outcomes.
	The school administrators and teachers review and discuss the school vision and purpose, analyse students' achievement and set directions to improve the students' learning outcomes as stated in the school vision.
Implementing	The school administrators and teachers collaboratively design the development of the student assessment and evaluation methods and criteria that are in response to the students' needs and aligned with the school vision, mission and goals.
	The school administrators and teachers implement the developed student assessment and evaluation methods and criteria.
Evaluation	The student assessment and evaluation methods and criteria are reviewed and evaluated by the school administrators and all teachers to ensure their alignment with the school vision, mission and goals.

Strategy 5: To increase the teachers' shared leadership capacity and shared decision-making

Sub-Strategy 5.1: Teachers' shared leadership capacity and decision in developing the teacher professional development to focus on the student achievement are promoted.

Procedure:

Planning	Department of Education communicates a policy of enhancing the teachers' leadership and authority in leading the teacher professional development to focus on the student achievement to school directors and educational supervisors; the budget is allocated to all BMA schools.
	The school administrator team plan the implementation of the policy through involvement of all teachers in defining shared vision, mission and goals to enhance the teachers' leadership and authority in leading the teacher professional development.

Implementing	The school administrators and teachers collaboratively define the scope of teacher leaders' roles and responsibilities in leading the teacher professional development.
	The teacher leaders collectively analyse and identify the areas of student learning needs for improvement and organise the teacher professional development that support the students' learning and achievement.
	The school administrators support the teacher-led workshops organised by the teacher leaders.
Evaluation	The school administrators and all teachers evaluate the quality of the teacher-led professional workshops organised by the teacher leaders.

Sub-Strategy 5.2: Teachers' shared leadership capacity and decision in developing the student assessment and evaluation are promoted.

Procedure:

Planning	The school administrator team plan the implementation of the policy to enhance the teachers' leadership and authority in improving the student assessment and evaluation.
Implementing	The school administrators support the teacher leaders' decision to collectively review the instructional programme and the assessment tools, methods and criteria which should be aligned with the school curriculum and the instructional objectives.
	The teacher leaders identify areas of the students' learning programme and the assessment tools, methods and criteria that need improvement.
	The school administrators support the teacher leaders' decision to establish teams to collaboratively work on improving the instructional programme and the student assessment.

	The school administrators support the teacher leaders' decision to organise and implement the remedial course to support students' learning needs.
	The school administrators support the teacher professional development that assists the students with special needs.
Evaluation	The school administrators and all teachers evaluate the effectiveness of the teacher leadership in improving the student assessment and evaluation.

5.2 Discussion of Research Findings

The researcher was able to learn about the school administrators' and teachers' perceptions of the establishment of professional learning communities of schools under the Bangkok Metropolitan Administration and were able to connect the literature to the three conceptual frameworks in the study including (a) the attributes of professional learning communities (b) the management of schools under the Bangkok Metropolitan Administration and (c) the formulation of management strategies.

5.2.1 Attributes of professional learning communities

From the beginning stage until the academic year 2014 there were a few Thai research studies conducted on the professional learning communities; most Thai researchers studied the characteristics of the PLCs from the foreign literature. Similarly, the researcher has explored and reviewed various foreign literature documents and research studies relating to the professional learning communities; the researcher found that the attributes of the professional learning communities developed and synthesised by various foreign researchers are mostly based on the attributes developed by Hord (1994, 2007) and Dufour (2004). The researcher then conducted a comparative analysis of the attributes of the PLCs synthesised by both foreign and Thai researchers and synthesised the attributes of the PLCs again. The synthesised attributes of the PLCs are used in a conceptual framework in this research study including

- 1) Shared vision, mission and goals
- 2) Shared leadership and shared decision-making
- 3) Collective learning through inquiries, reflective dialogues and application of learning
- 4) Collaboration and shared practice focusing on improving student achievement
- 5) Supportive conditions: people's capacities and structural support

These attributes are necessary for the schools to develop in order to create PLCs. Based on Hord's research study (1997), it is confirmed that the schools adopt the practice of PLCs can bring about qualitative changes in both the teacher professional development and the student achievement. Creating the PLCs in the schools reduce the teachers' isolation and increase more staff interaction and learning from one another. They have to participate in regular meetings and engage themselves in reflective discussion on students' learning; the interactive activities lead to the development of good relationship in the workplace and the commitment to accomplish the tasks together since they have shared vision and common goals. The PLCs help to reduce the staff's negative feelings or frustration when facing difficulties as they can seek help from their teams. They can share the problems, exchange ideas and the expertise to find the solutions. Therefore, the practice of PLCs helps the teachers to collectively acquire the professional knowledge and skills.

In addition, the PLCs also have a positive impact on the students' learning. Hord's study reveals that the students' high failure rate is reduced. The students acquired better achievement, the performance gap is reduced and the attendance rate is increased. The students receive better support from the teacher's team; their learning problems are solved and improved.

According to PISA, Thai students' performances in reading, math and science are poor and rank below the average, and the report states that the students have poor performances due to the poor teacher quality. Based on the research findings, the collaboration and shared practice, the collective learning through inquiry, reflective dialogues and application of learning and the people's capacities are found to be the weaknesses of the schools under the BMA. This indicates that the teachers in BMA schools work in isolation. When they do not work as a team, they have less opportunities to gain new ideas from sharing and discussions. The research also reveals

that many teachers are young and new to the teaching career or have a few years of teaching experience. Therefore, the practice of PLCs would be suitable to help the less experienced teachers to acquire new skills and to learn to solve problems with the support from the teachers' team or mentor teachers.

5.2.2 Management of schools under the Bangkok Metropolitan Administration

5.2.2.1 The current state and desired state of management to create professional learning of schools under the Bangkok Metropolitan Administration

5.2.2.1.1. Based on the research findings, the overall picture of the current state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a high level. When considering each aspect, the shared leadership and shared decision-making has the highest mean value, and the findings imply that teaching staff feel supported and empowered by their leaders to make decisions for their students.

5.2.2.1.2 Based on the research findings, the overall picture of the desired state of management to create professional learning communities of schools under the Bangkok Metropolitan Administration is at a highest level. When considering each aspect, the shared leadership and shared decision-making has the highest mean value. The findings imply that although in the current state the teaching staff feel supported and empowered by their leaders to make decisions for their students, the level of shared leadership may be insufficient and they may want to have more power and authority to make decisions.

The concept of shared leadership and shared decision-making is supported by the concept of empowerment, the decentralised power and the teacher authority. The concept of this aspect is supported by Kinlaw's concept (1995) on people's empowerment. He emphasises the enhancement of the individual person's empowerment. He states that the individuals' capacities should be developed in order that they can work effectively and be able to produce the expected outcomes of the organisation, their love and commitment to the organisation will increase, they would also feel valued, have good understanding towards the surrounding environment and

be able to successfully solve problems. It is also stated in the School-Based Management: Strategies for Success (Consortium for Policy Research in Education:FB-02-1/93) that the power to make decisions, one of the four resources controlled over by the school leaders and impact the operation, policies and directions and, should be decentralised throughout the organisation in order to enhance the improvement of performance. Vicki Vescio, Dorene Ross, Alysia Adam (2008) stated in the review of research on the impact of professional learning communities on teaching practice and student learning about Englert's and Tarrant's report on a case study in 1995 which defined the teacher authority as the teachers' abilities to make decisions relating to the processes of the learning communities and the school governance, the teacher authority is one of the key attributes contributing to the overall success of a learning community. The case study was that three special education teachers were encouraged by seven university researchers to take control and lead in the literacy curriculum development and instruction for students with mild disabilities; they were given leadership to make choices and to make any necessary changes of the learning topics based on their concerns and interests for the students. As a result, the teachers feel empowered and have a sense of ownership over the curriculum. Supovitz (2002) also mentioned that allowing the teachers to have power to make decisions in their own learning process was important to the improvement of students' learning and Bolam et al (2005) who stated that the shared leadership within the strong PLCs will enable teachers and management to develop creative strategies to use financial and personnel resources to enhance student learning and strengthen the professional learning context(cited by V. Vescio et al.,2008:85-86).

5.2.2.1.3. Based on the analysis of the current state of the external environment, the technological factor was found to have a highest mean value. Therefore, the research findings imply that the technology has been regularly employed in academic tasks to create professional learning communities of schools under the Bangkok Metropolitan Administration. The schools take advantage of using the advanced technology in their academic programmes which appear to be accorded with the BMA educational policy of promoting the use of technology in education by increasing the access to electronic communication system such as establishing the quality internet and WIFI systems in all the BMA schools, establishing an electronic library system with easy access to the

sources of information and establishing networks of the electronic libraries of all schools.

5.2.2.1.4 Based on the analysis of the desired state of the external environment, the technological factor was found to have a highest mean value. The research findings imply that the technological system may not be sufficient for the schools' needs and there are more demands to employ the technological system in the academic tasks to create professional learning communities of schools under the BMA. The demand for technology is supported by the concept of the technology-enhanced learning (online) particularly in the 21st century education. The teachers' understanding of students' learning styles can be enhanced by the innovative technologies which enable the teachers to design, develop learning materials and customise the students' learning experiences to become suitable for the students' individual needs particularly those students who expect to have technology-driven learning experiences.

5.2.3 Strengths, Weaknesses, Opportunities and Threats of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration

5.2.3.1 The research findings indicate that the strengths of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration include the shared leadership, shared decision-making, the shared vision, mission and goals, and the structural conditions which is a subcomponent of the supportive conditions, respectively.

These three attributes which are found to be strengths are interrelated, also. The concept of the shared leadership, shared decision-making is supported by the theatrical framework of teacher empowerment, teacher authority and decentralised leadership. When the teachers have power and can take part in making decisions on important actions or practices, they feel their opinions are respected and valued by their leaders; their motivation and a sense of ownership may increase and have a commitment to effectively fulfill their responsibilities. Many researchers (Annenberg Institute for School Reform, 2003; Berlinger-Gustafson, 2004; DuFour & Eaker, 1998; Hord, 1997; Kruse, et al., 1994; Patterson & Rolhiehieser, 2004; Senge, 2000) agree that

“the shared leadership is one of the attributes that characterises professional learning communities”

(cited by S M Hafizur Rahman, 2011:online).

When the teachers are given leadership and authority to make decisions, they are able to ask questions, investigate and examine to seek solutions for improving the student achievement.

When the shared vision, mission and goals and the supportive conditions are identified as strengths; the strengths of these two aspects are supported by the shared leadership and shared decision-making. It implies that when the teachers are given leadership and power to make decisions, they have the opportunity to take part in defining the school’s directions together and would make a collective attempt to achieve the school’s goals. The concept of shared vision, mission and goals is supported by Peter Senge’s concept on shared vision, he states that building shared vision is crucial to the organisational change and leaders should involve the people in the organisation to develop a vision together. The shared vision promotes the people’s creativity and commitment and guides them to accomplish their goals in order for them to reach their targets (Cited by Smith, M. K. 2001.online). Various researchers (DuFour, et al., 2008; Hord & Sommers, 2008; Kruse, et al., 1994) agree that the shared vision, mission, and goals allow the PLCs members to have a collective focus and commitment to improving the student achievement. The teachers are encouraged to take part in the process of shaping a clear vision that becomes a guidepost in decision making about problems and issues they encounter which will lead to the process of seeking solutions for those problems.

In addition, when the school administrators share the authority with the teachers and allow them to make decisions and to be involved with any important actions, it becomes necessary for the school administrators to give them a structural support. As stated by Hord (2004), the supportive conditions determine necessary resources including time, budget and manpower allocation for the actions to take place such as meeting, collective learning, making decisions, solving problems and working collaboratively towards achieving the goals.

“The necessary conditions for physical and structural factors as mentioned by Kruse, et al. (1994) are time to meet and talk, physical

proximity, independent teaching roles, communication structures, and teacher power and empowerment. The significance of the relational factors and human capacities which are considered social resources in a productive learning community is that they address teachers' enthusiasm to acknowledge feedback and work for improvement"

(Boyd, 1992; Hord, 1997; Kruse, et al., 1994) (cited by S M Hafizur Rahman, 2011:online).

5.2.3.2 The research findings reveal that the weaknesses of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration include 1) the collaboration and shared practice focusing on improving student achievement which have two subcomponents including the collaborative work, coaching, mentoring and the class observation and giving feedbacks to improve student achievement 2) the collective learning through inquiries, reflective dialogues and application of learning with the two subcomponents consisting of the collective learning through inquiries and reflective dialogues on teaching and learning and the application of learning and 3) the supportive conditions with a subcomponent of people's capacities.

The findings imply that the school management does not promote and implement the collaboration and shared practice, the collective learning through inquiries, reflective dialogues and application of learning and the development of people's capacities sufficiently; and therefore, it has probably been challenging for the members of the professional learning communities, both school administrators and teachers, to improve the student achievement and the teaching performance. The collaboration and shared practice, the weakest points, are the key attributes of the professional learning communities which could have a major impact on the teaching and learning performance. Coaching, mentoring, observing lessons and giving feedbacks to improve students' learning which are essential parts of the collaboration and shared practice should be promoted to take place on a daily basis. Those veteran teachers who have years of experience and have developed teaching expertise can be mentor teachers to coach, to guide and to share their expertise to support new staff or mentees. It is important for the mentor teachers to observe mentees' teaching and to

give them constructive feedback so that they can bring the feedback to improve their performance. It provides the opportunities to mentees to learn new ideas, to develop their professional capacities and to apply their learning to improve their teaching performance. Therefore, strengthening the collaboration and shared practice is likely to improve the collective or team learning and the development of people's capacities. As a consequence, the teachers' collaborative work, investigation, discussion of various ideas to find solutions of learning problems can help students to gain success and achievement.

However, the collaboration, coaching and mentoring are weaknesses which imply that the existing coaching and mentoring programme is not functioning properly or mentor teachers have probably not received adequate training to coach or guide mentees. Mentoring can be challenging for the veteran teachers as it requires them to invest a lot of time and energies to perform this role. James B. Rowley (1999, p. 20-22:online) identifies six essential components of a good mentor as follows:

“1) The good mentor is committed to the role of mentoring. 2) The good mentor is accepting of the beginning teacher. 3) The good mentor is skilled at providing instructional support. 4) The good mentor is effective in different interpersonal contexts. 5) The good mentor is a model of a continuous learner. And 6) The good mentor communicates hope and optimism”.

However, he mentions that the aspect of school-based mentoring programmes can bring about special challenges when the mentor teachers have not acquired sufficient training and support to perform their roles and responsibilities. The mentors should receive continuous training not only on how to provide instructional support to their mentees but also on how to build trust, motivate and encourage their mentees. In addition, the school administrators should provide necessary structural support to the mentor teachers; the very important structural support are to reduce their teaching loads and to increase more non-contact time for observing and meeting with mentees.

In addition, the mentor teachers themselves should be empowered to make decisions on necessary actions needed to support mentees' performance which consequently impact students' learning. Hokanson (1992) states that the empowerment can create, develop and increase people's capacities to achieve the goals of the

organisation. Hence, when the mentors are empowered and increase their capacities, they can impact their mentees' capacities, too.

With regards to the other weakness, the collective learning, the school management should also pay attention to this aspect as it can impact the student learning and achievement. The collective learning or team learning is important to the change and improvement of student achievement. The collective learning or team learning is an activity whereby the teams or members of the organisation discuss and share ideas, think and reflect on shared ideas or knowledge leading to the discovery of new ideas or knowledge together. The team learning enables the people in the organisation to increase knowledge and capacities and to produce good outcomes for the organisation. Hord & Sommers (2008) state that people have opportunities to learn together, be able to work in collaboration, take part in a continuous learning process and apply their learning to their practice in a professional learning community (cited by S M HAFIZUR RAHMAN, 2011). Scott and Jaffe (1994) state that in order to successfully manage the organisation, the empowerment of the team should be promoted by creating the interaction among team members in the collaborative teamwork; the team will have a sense of ownership and fulfil their collective responsibilities; they will continuously work towards the improvement and development to achieve the common goals of the organisation. When people work in collaboration, the communication and coordination will take place, the information and ideas are shared both within and among the groups and the outcomes will increase.

5.2.3.3 The research findings indicate that the opportunity of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration includes the technological aspect. It is implied that the Bangkok Metropolitan Administration has provided the schools with computers, the internet and WIFI system as stated in the BMA policy and the government tablets which give the teachers the opportunities to use the provided technology to enrich the student learning. Kimberly Ann Fortune (2000) conducted a research study on the use of technology in classrooms and found that the use of technology in the teaching and learning has a positive impact on the change and increase the effectiveness of the teaching performance and enable the teachers to solve problems in the classrooms (cited by Saardluk Chongkhlaiklang, 2013).

5.2.3.4 The research findings indicate that threats of the management to create professional learning communities of schools under the Bangkok Metropolitan Administration include the economic aspect, then the political and government policy aspect and the socio-cultural aspect. The economic and socio-cultural aspects which are found as threats to the schools are accorded with the research study on the state and problem of management and basic education provision of schools in Thailand conducted by Theera Rooncharoen (2002). According to his research study, many school administrators mentioned that the insufficient budget, staff and learning materials and the lack of active parental and community involvement are found to be problems to the school management. The responses on the survey questionnaire also describe problems to the school management including the insufficient budget, the lack of community involvement, the use of substance abuse around the school's neighbourhood and the pollution outside the schools. In addition, the parents' migration, low level of education and their divorce status have negative impact on the students' learning and achievement.

5.2.4 Development of Management Strategies to Create Professional Learning of Schools under the Bangkok Metropolitan Administration

Educators recognise the importance of professional learning and believe that it helps to increase the educators' effectiveness and raise the student achievement when it occurs in the learning communities whereby a commitment of continuous improvement, collective responsibility and goal alignment is carried out.

It is stated in the standards for professional learning (online) that Shirley Hord, a scholar laureate, talks about the importance of learning communities.

“Professional learning within communities promotes collective responsibility, and supports alignment of individual, team, school, and school system goals. The professional learning that occurs within learning communities both supports and is supported by policy and governance, curriculum and instruction, human resources,

and other functions within a school system. Learning communities bridge the knowing-doing gap by transforming macro-level learning -- knowledge and skill development -- into micro-level learning -- the practices and refinements necessary for full implementation in the classroom or workplace. When professional learning occurs within a system driven by high expectations, shared goals, professionalism, and peer accountability, the outcome is deep change for individuals and systems”.

Therefore the appropriate management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration should be formulated to be implemented by school administrators and teachers.

Based on the research findings, five main strategies and sixteen minor strategies are developed.

The management strategies to create PLCs of schools under the BMA is produced based on the research findings of the strengths, weaknesses, opportunities and threats with the PNImodified. Based on the conceptual framework of the attributes of the PLCs of schools are prioritised by the PNImodified as follows: 1) collaboration and shared practice focusing on improving student achievement 2) collective learning through inquiries, reflective dialogues and application of learning 3) supportive conditions 4) shared vision, mission and goals and 5) shared leadership and shared decision-making.

The formulated sub-strategies based on the components of each attribute of the PLCs of schools are prioritised by the PNImodified as follows:

1) The collaboration and shared practice focusing on improving the student achievement includes two subcomponents as follows: 1.1) the coaching practice 1.2) the peer observation and giving constructive feedback to improve student achievement

2) The collective learning through inquiries, reflective dialogues and application of learning includes two components as follows: 2.1) the collective learning through making continuous inquiries and reflective discussion 2.2) the application of knowledge and ideas learned from the collective learning

3) The supportive conditions includes two components as follows: 3.1) the structural support and 3.2) the people's capacities

However, the shared vision, mission and goals and the shared leadership do not have subcomponents.

The five strategies formulated based on the TOWS matrix analysis:

1) Based on the research findings, the collaboration and shared practice focusing on improving student achievement are the greatest weakness; therefore, they need special and urgent attention from the school administrators. The research findings indicate that the TOWS matrix analysis identifies the matches of W-T for the formulation of Mini-Mini Strategy which is a defensive strategy for this aspect to enable the school to reduce weaknesses and avoid threats.

2) Based on the research findings, the collective learning through inquiries, reflective dialogues and application of learning are found to be the weakness in the second place. The research findings indicate that the TOWS matrix analysis identifies the matches of W-O and W-T for the formulation of mini-maxi and mini-mini Strategies which are a turnaround-oriented strategy needed for reducing the weaknesses and using the opportunities to benefit at most in planning tasks and a defensive strategy for reducing weaknesses and avoiding threats for this aspect.

3)The research findings indicate that supportive conditions appear to be the weakness in the third place, and the TOWS matrix analysis identifies the matches of SO – ST , WO – WT for the formulation of maxi-maxi, maxi-mini, mini-maxi and mini-mini strategies. It means that they need all four strategies including proactive strategy, diversification strategy, turnaround-oriented strategy and defensive strategy for this attribute of the PLCs.

4)The research findings indicate that the shared vision, mission and goals actually appear to be the strength and the TOWS matrix analysis identifies the matches of SO – ST for the formulation of maxi-maxi and maxi-mini strategies. This aspect of PLCs would require a proactive strategy and a diversification strategy.

5) The research findings indicate that the shared leadership and shared decision-making is the strongest aspect and the TOWS matrix analysis identifies the matches of SO – ST for the formulation of maxi-maxi and maxi-mini strategies. This aspect of

PLCs would require a proactive strategy and a diversification strategy. The school management should maintain the quality shared leadership and shared decision-making which staff perceive the aspect as the strongest attribute.

5.2.4.1 First Strategy and its four sub-strategies

Strategies 1: To promote collaborative culture and shared practice through coaching practices and peer observation.

Sub-strategy 1.1: Mentor teachers develop skills in coaching mentees in developing the student assessment methods and criteria.

Sub-strategy 1.2: Mentor teachers develop skills in coaching mentees focusing on the teacher professional development programme that promotes student achievement.

Sub-strategy 1.3: Teachers implement the critical friend practice in observing colleagues' lessons and giving constructive feedback to improve the student assessment and evaluation.

Sub-strategy 1.4: Teachers implement the critical friend practice in observing colleagues' lessons and giving constructive feedback to improve the teaching and learning.

Collaboration and sharing of best practices are the key in the PLC and must be promoted. When the teachers join hands to work towards the improvement of students' learning, they have the potential to bring about great changes in their students and the school.

High-performing schools embrace collaboration and make it part of their culture. The collaboration and shared practice must be promoted and strengthened without the intervention of the external threats of the economic, socio-cultural and political aspects. Richard Dufour (2003) states that leaders determine to impact student achievement must not settle for congeniality, coordination, delegating responsibilities of any form of collaboration like but they must work together to impact professional practice to improve individual and collective results (cited in Professional Learning Communities: An Exploration. Annotated Bibliography/51,2006). A mentoring programme, a critical friend programme and peer observation are found to strengthen

the education and implemented in the western education system; therefore, the district and schools use have these programmes and practices take place. Senge (1990) states that critical friend has been introduced in many school systems that see themselves as learning organizations and know that learning requires assessment feedback. (cited by Arthur L. Costa and Bena Kallick; online)

The school should also use the opportunity of technological aspect to support and manage the shared knowledge and information.

The strategy with four sub-strategies developed aim to promote and strengthen the collaboration and shared practice through the mentor teachers' professional development of skills and expertise in coaching, mentoring, observing lessons and giving constructive feedbacks to mentees regarding the curriculum development, the instructional planning and designing learning experiences, the student assessment and the teacher professional development to enable the mentees to improve their capacities in performing academic tasks to improve student achievement.

5.2.4.2 Second Strategy and its four sub-strategies

Strategy 2: To promote the collective learning through inquiries, reflective dialogues and application of learning.

Sub-Strategy 2.1: Teachers collectively learn about the participatory approaches to the teacher professional development through inquiries and reflective dialogues.

Sub-Strategy 2.2: Teachers collectively learn through inquiries and reflective dialogues about improving the school curriculum.

Sub-Strategy 2.3: Teachers apply their learning to improve their instruction and students' learning experiences.

Sub-Strategy 2.4: Teachers apply their learning to improve the school curriculum.

The collective learning and application of learning must be improved and developed further using the advantage of technology to manage the information and knowledge they learn together; and the school management should try to avoid or reduce the negative impact of the economic, socio-cultural and political aspects on the collective learning and application of learning.

The collective learning is one of the important attributes of the professional learning communities which impact student achievement and learning with the team can help team members to improve their performances more rapidly. The strategies focusing on promoting collective learning through inquiries and reflective dialogues will enable team members to investigate, examine and reflect their thoughts on problems and challenges relevant to the academic tasks they are facing, they will have the opportunities to learn ideas from the engagement in discussion among themselves. The questioning and investigation of problems will enable them to be creative in finding solutions to those problems. The practice can also be implemented in the classroom to promote students' questioning skills and seeking solutions. Therefore, the collective learning can benefit both teachers and students.

The application of learning must also be practised or the knowledge gained is in vain if it is not used. The new ideas learned from the team should be applied to improve the curriculum development, the instructional design, the student assessment and the required teacher professional development. It is stated in the Advancing Research Improving Education SEDL(online) that Teachers knew also that their participation in conferences and workshops off campus included responsibility for bringing back information to actively share with their colleagues. This sharing often included formally structured presentations to and discussions with the staff, as well as the informal information exchange between classes and in the teachers' lounge.

5.2.4.3 Third Strategy and four sub-strategies

Strategy 3: To promote the supportive conditions required for the development of people's capacities and for increasing the effectiveness of the structural support.

Sub-Strategy 3.1: The school administrators and the teachers increase their capacities in developing the school curriculum of the 21st century.

Sub-Strategy 3.2: The school administrators and the teachers increase their capacities in developing the students' assessment methods and criteria to be aligned with the 21st school curriculum.

Sub-Strategy 3.3: The school administrators increase the effectiveness of the structural support to promote the teacher professional development.

Sub-Strategy 3.4: The school administrators increase the effectiveness of the structural support to develop the school curriculum of the 21st century.

The findings on the third aspect, the supportive conditions, actually reveal that the two subcomponents consist of both strength and weakness; although the structural support is found to be a strength, the people's capacities is viewed as a weakness. It is important for the school management to provide the supportive conditions required for the school programmes to function effectively.

The school management should continue to provide the structural support by using the advantage of technology. The ICT programme and innovations should be implemented in the classrooms. Many educators in the 21st century agree that what the teachers teach the students and the way they teach them should involve media literacy including the internet, moving images, films, videoclips, music, etc. Frank W. Baker (2010.p.151-152) recommends that

“teachers should demand media literacy education as a vital component of teaching and learning. Media literacy should be incorporated into all subject areas. Schools should offer professional development training to meet media literacy requirements. School library media specialists should consider media and media literacy resources both for student and professional collections. More textbook publishers must embrace and include media literacy in their publications. Schools should consider programmes for parents on media literacy awareness”.

The people's capacities particularly the teaching capacities must be emphasised and promoted. The teacher professional development, the collaboration, coaching, mentoring and sharing practices should be regularly implemented to improve the teachers' capacities. Time for reflective discussion on students' learning problems or teachers' collective learning or meetings to conduct the planning or the development of the school programmes should be provided in the curriculum time. Reducing teaching loads and increasing more non-contact time for teachers' meetings are crucial. The school management should try to reduce any matters found to be obstacles to the support such as the allocation of time for meetings should not be interrupted by any other school activities.

However, it is stated in the survey questionnaires that the budget and teachers' capacities are major weaknesses. Many respond to the questionnaire that there are insufficient number of teaching staff to provide lessons to students. Many teachers do not possess the suitable qualifications to teach the assigned subjects; therefore, they do not employ their skills, knowledge and experiences to their full potential and there are not enough qualified teachers to teach the assigned subjects, either. A lot of teaching staff are new to this career and have only a few years of teaching experience. Many of them are transferred or relocated to different schools every semester; therefore, the continuity of their work is disrupted. A lot of teachers receive heavy teaching loads and many other non-academic assignments which prevent them from focusing on the students' learning. In addition, there are disagreement and quarrels among teachers which create negative workplaces, some teachers feel undervalued when they cannot take part in decision making or their voices are not heard by the management. In addition, many responses mention that they don't receive sufficient budget to support school activities; others found the school size to be too small to organise activities.

The school management needs to pay attention to the teachers' capacities as they become a major impact to the student achievement. Qualified and sufficient numbers of teachers are needed for the school communities. The training on the curriculum development and the methods and criteria of student assessment should be prioritised and organised for the teacher professional development. The amount of workloads and teaching loads must also be balanced to allow the teachers to focus on the students' learning. The positive relationship in the workplace should also receive special attention. Sarita Harbour (online) states that creating and keeping a good work relationship is the key to a positive workplace. Establishing clear expectations, practising regular communication and giving timely responses to employees' issues or concerns can strengthen the good relationship among staff.

Therefore, the capacities do not only include the development of skills, knowledge and expertise required for the work performance but also include the development of personal attitudes, trust, commitment, relationship with colleagues, etc. The personal attitudes have certainly affected the work performance; a positive relationship among staff is very crucial and it can become one of the mechanism to move the organisation to achieve its goals. Thus, the school management should

implement strategies to increase or develop the teachers' capacities both professionally and in work relationship. The teacher professional development, fostering a positive working relationship, building teamwork and building a good working environment are all needed for a professional learning community to create a good result for the school and the students.

5.2.4.4 Fourth strategy and its two sub-strategies

Strategy 4: To raise the quality of shared vision, mission and goals

Sub-Strategy 4.1: The teacher professional development is aligned with the shared vision, mission and goals.

Sub-Strategy 4.2: The student assessment and evaluation are aligned with the shared vision, mission and goals.

The school management should maintain the quality shared vision, mission and goals which staff perceive the aspect as their strength and use them as a guidepost of their work performance. As educational leaders, the school administrators should foster and promote the students' success and achievement by facilitating the development, communication, implementation, and evaluation of a shared vision of learning that reflects excellence and equity. All staff in each school must recognise their school vision, mission and goals; the school programmes should then proceed in the same direction towards the school goals. Therefore, the academic tasks particularly the student assessment methods and criteria and the teacher professional development programme should be planned and implemented to be aligned with the shared vision, mission and goals of the schools. In addition, all the school programmes should be reviewed and evaluated consistently to ensure they are aligned with the school's vision and goals.

5.2.4.5 Fifth Strategy and its two sub-strategies

Strategy 5: To increase the capacities of shared leadership and shared decision-making

Sub-Strategy 5.1: The teachers' shared leadership and shared decision-making in developing the teacher professional development to focus on the student achievement are promoted.

Sub-Strategy 5.2: The teachers' shared leadership and shared decision-making in improving the student assessment and evaluation methods and criteria are promoted.

It implies that the staff members have authority to make decisions on school matters. However, the shared leadership and shared decision making are needed for the implementation of the teacher professional development and the student assessment and evaluation. The teachers should take part in making decisions on the teacher professional development activities or areas of development based on their needs and interests. People's capacities and interests vary and so does the school context; the teachers know their students' abilities, learning styles, interests, etc; and therefore, their professional development should focus on the students' needs, they should be given the opportunities to make choices to learn in the areas that would serve the student's needs. However, Dufour (2004) emphasises that the teachers should make decisions based on the evidence or available data; they must possess skills in examining and analysing the data and use the analysed data for decision making. However, he makes a point that

"..the use of data does not necessarily translate into improved practice unless the teachers have access to comparative data and collegial support for review and analysis. He concluded that the role of leadership is critical in creating the systems that embed collaboration in the routine practices of the school, along with the staff commitment to work closely and persist in their efforts together"

(cited by Feger, S. and Arruda, E., the Education Alliance at Brown University, 2008, p.7).

The successful case of teacher leadership is also shared by Douglass B. Reeves (2009, p.137), he states that

"..teacher leadership is a concept that has become an integral part of

education reform. The award-winning school districts have made teacher leadership a key part of their strategies for continued success.”

He mentions the case of Jenks Public Schools in Oklahoma, the winner of the 2005 Baldrige Award for school quality. The teacher leadership was credited for the success; the teachers made decision themselves to be involved with the remediated courses to support high-challenging students and to take immediate intervention to prevent students' failures.

5.3 Recommendations

5.3.1 Recommendations for implementing the research findings

5.3.1.1 Based on the research findings, the collaboration and shared practice focusing on improving student achievement are found to be the weakest point and the PNI modified indicates that the desired state of this attribute is at a highest level; therefore, it needs an urgent improvement. The Department of Education, Bangkok Metropolitan Administration (BMA) should immediately create a policy and allocate the budget to all schools under the BMA to promote the collaborative culture and sharing practices among mentor teachers and mentees in response to the urgent needs.

The teacher development division of the Department of Education should increase mentor teachers' capacities by immediately organising a quality mentoring programme for mentor teachers to develop their skills and expertise in coaching and guiding their mentees, the teachers who are new to the teaching job or may have only a few years of teaching experiences, to perform their teaching effectively. The teachers who possess a minimum of five year teaching experience may be selected to become mentor teachers. They should be trained to be able not only to provide instructional support to mentees but also to be able to motivate and encourage mentees to work successfully. In addition, the mentor teachers also need support in order for them to perform well. Reduction in their work loads and the increase of their non-contact time is crucial, they need time to visit and observe teaching and conduct meetings with their

mentees. The incentives and recognition for them should also be considered. Their contribution to the school work, to the students' achievement and to the new teachers' performance should definitely be recognised.

5.3.1.2 The research findings also reveal that the PNI modified of the desired state on the peer observation and giving constructive feedback is at a highest level, the Department of Education of the BMA should immediately create a policy and allocate budget to all schools under the BMA to promote and implement a critical friend programme; sharing best practices should be promoted among the teachers; they should be given the opportunity and be guided to observe colleagues' teaching and to be able to give constructive feedback to their colleagues to improve their teaching and students' learning experiences.

The peer observation and giving constructive feedback is crucial to the improvement of teaching practice; therefore, the teacher development division should organise the continuing professional development for teachers of BMA schools to develop lesson observing skills and giving constructive feedback to their colleagues; the peer observation should be planned and implemented regularly. The school management should promote and implement the critical friend programme as their priorities, the school administrators should give a structural support by providing time for teachers to observe each other's lessons and to meet regularly to discuss the teaching practice.

In addition, the school management should foster and promote positive working relationships, good teamwork and create good working environments for staff to have trust and respect among themselves. The school administrators should ensure that all staff recognise the value of having good relationship with colleagues at work and working together as a good team towards the common goals of the school can lead to the students' success. The critical friend programme would be impossible if the teachers do not have trust among themselves and would be unwilling to accept critiques from their colleagues.

5.3.1.3 Based on the research findings, the PNI modified also indicates that the collective learning through inquiry, reflective dialogues and application of

learning and the people's capacities are found to be the weaknesses. The Department of Education, Bangkok Metropolitan Administration should promote the framework of the participatory approaches in the teaching practice and their professional development which will give the teachers the opportunities to focus and participate in the continuous improvement of students' learning.

The teacher development division of the Department of Education should adopt the participatory approaches as a model of teacher's training and the Educational Strategy Office should define and promote the framework of the participatory approaches in the teacher's job. This approach will allow teachers to collectively learn from one another, to continuously improve professionally by engaging themselves in discussion, sharing knowledge and generating ideas among themselves with a focus on improving student achievement. It gives them the opportunity to distribute their expertise to their communities. The school management should set aside time for teachers during the curriculum time to meet regularly to discuss, explore about their professional goals and to connect with the teaching and learning context. They must be result-oriented and should get together to participate in the investigation, the analysis and reflection on school and students' matters focusing on results of student achievement. They are encouraged to voice out their ideas focusing on student improvement. The CPD for teachers should not only focus on what the schools want for them; but it should also be implemented in a non-hierarchical, inclusive manner which allow the teachers to have the opportunities to design their own professional development.

5.3.1.4 Based on the research findings, the PNImodified indicates that the shared leadership and shared decision-making is the strongest attribute; the school management should take advantage on employing this attribute to enhance the operation of the school programme. The Department of Education, Bangkok Metropolitan Administration should adopt a policy that promotes the school-based management.

The Educational Strategy Office of the Department of Education should define the framework for the school-based management in order to empower the administrators and teachers to make decisions that are needed and appropriate to the

school contexts and the students' learning needs. Teacher leadership should be promoted in order for them to articulate their concerns on the students' problems and to propose solutions. Due to various contexts and environments of schools under the BMA spreading out in 50 districts, the school administrators and teachers should have power to make decisions on the school programmes and activities that need to be implemented in order to support the students' learning needs including the mobilisation of human resources among the schools within the networks in order to solve the problems of insufficient qualified staffing.

5.3.1.5 Based on the research findings, the PNImodified indicates that the technological aspect is found to be the opportunity for all BMA schools. The Department of Education should take the opportunity to promote the use of internet, WIFI system, advanced technology and media literacy to strengthen the teaching and learning and allocates the budget to supply the schools with the quality computers, tablets and the ICT training.

The Technology for Learning and Teaching division should promote and support the development and use of the e-learning system and e-library resources to support the students' learning. Moving towards the 21st century education, the information technology has become an integral part in the education provision. The students must be provided with the opportunities to develop their IT skills and use them to explore and research the information. Therefore, the administrators's and teachers' IT skills must also be developed and enhanced in order for them to be able to apply to manage the school system and to support the students' learning. The teachers' training on the use of innovative technology should be conducted, the adequate and quality learning resources, computers and tablets should be provided to all schools.

5.3.2. Recommendations for the Future Research Studies

5.3.2.1 Based on the research design, the attributes of the professional learning communities(PLCs) were studied, analysed and synthesised in the overall picture for all schools under the Bangkok Metropolitan Administration(BMA) in order that they

become the framework for developing the management strategies to create the PLCs for all schools under the BMA; however, the school sizes vary from small to large, and the schools are located in six Bangkok area groups that may have different types of the environment; the school sizes, the environment, the contexts and students' needs may vary. Therefore, the future research study on the management strategies to create professional learning communities should be conducted for schools under the BMA of a particular size or in a particular area of Bangkok area group. Based on the school size or the environment, the differences in the schools' values, policies, practices, cultures and available resources will require consideration, the researcher may conduct the studies on different strategies that may be suitable for the needs to enable the schools to create the professional learning communities.

5.3.2.2 Based on the research findings, the collaboration and shared practice appears to be the weakest attribute of the PLCs of schools under the BMA. One of the factors found to prevent collaboration is disagreement among staff. However, according to the literature review and research studies, the collaborative culture is found to be one of the crucial attributes of the PLCs that all schools should practice; therefore, the future research study may be conducted on strategies to promote good work relationship and trust among teaching staff leading to the collaboration.

5.3.2.3 Based on the research findings, strategies, sub-strategies and their procedures were defined, the procedures were designed in three steps of planning, implementing and evaluation; however, the success indicators for each strategy have not been developed. Therefore, the future research study may also be conducted on developing success indicators for the practice of each attribute.

5.3.2.4 After the implementation of the management strategies to create professional learning communities of schools under the BMA, the future research may be conducted on the impact of the professional learning communities on student learning and achievement.

5.3.2.5 As mentioned in the item 5.3.2.1 above, the attributes of the professional learning communities(PLCs) were studied, analysed and synthesised in an overall picture for all schools under the Bangkok Metropolitan Administration(BMA) in order that they become the framework for developing the management strategies to create the PLCs for all schools under the BMA; a case study of the impact of the PLCs on the

high-performing and low-performing schools under the BMA may be conducted to identify factors contributing to the success or concerns of the schools.



REFERENCES

- 21st Century Schools. (2013). What is 21st Century Education? . Available from http://www.21stcenturyschools.com/what_is_21st_century_education.htm. Retrieved 15 February 2013
- Anusak Smitsant. (1997). *Academic Management*. Bangkok: Faculty of Education. Srinakarinwiroj Bangkaen University.
- Arveson, P. (1998). The Deming Cycle. *Obtenido de Balanced Scorecard Institute: <http://www.balancedscorecard.org/thedemingcycle/tabid/112/default.aspx>*.
- Babatunde, B. O., & Adebisi, A. O. (2012). Strategic environmental scanning and organization performance in a competitive business environment. *Economic Insights-Trends & Challenges*, 64(1), 24-34.
- Baker, F. W. (2011). Media Literacy: 21st Century Learning. *Library Media Connection*, 29(4), 10.
- Bolam, R., McMahon, A., Stoll, L., Thomas, S., Wallace, M., Greenwood, A., . . . Smith, M. (2005). *Creating and sustaining effective professional learning communities*: Department for Education and Skills London.
- Boone, J. (2011). Important Concepts for School Leadership & Administration. http://www.ehow.com/info_8268352_important-concepts-school-leadership-administration.htm. Retrieved 13 August 2011
- Boonliang Kamchoo. (2001). *Creating Strategic Plan of Elementary Schools under the Office of Elementary Education*. Surin Province: Graduate School. Mahasarakam University.
- Boonprasert, U. (1989). *Educational Planning*. Chulalongkorn University Printing, Bangkok.
- Bradley, K. (2011). ypes of Leadership in School Administration. http://www.ehow.com/info_8010290_types-leadership-school-administration.html. Retrieved 13 August 2011
- BusinessDictionary.com. (2011). Strategic Management. <http://www.businessdictionary.com/definition/strategic-management.html> Retrieved 15 August 2011
- BusinessDictionary.com. (2014). Evaluation. <http://www.businessdictionary.com/definition/evaluation.html>. Retrieved 9 August 2014
- Caena, F. (2011). *Education and Training 2020. Thematic Working Group. 'Professional Development of Teachers'*.

- CHENG, C. K. E. (2011). Management strategies for promoting teacher collective learning.
- Communities, B. P. L. (2011). Building Professional Learning Communities
www.sagepub.com/upm-data/25986_Chapter_1.pdf Retrieved 5 August 2011
- Constitution of the Kingdom of Thailand. (2007).
<http://www.asianlii.org/th/legis/const/1997/1.html#S081>. Retrieved 29 August 2012
- Costa, A. (2015). Teachers as Continuous Learners.
http://www.escofcentralohio.org/Achievement/Documents/Teachers_as_Continuous_Learners.pdf. Retrieved 16 March 2015
- Costa, A. L., & Kallick, B. (1993). Through the lens of a critical friend. *Educational leadership*, 51, 49-49.
- Creswell, J. W. (2003). *Research design : qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, California: Thousand Oaks, California : SAGE.
- Creswell, J. W. (2003). *RESEARCH DESIGN. Qualitative, Quantitative. and Mixed Methods Approaches.*: Sage Publications.
- Culture, O. (2011). Corporate Culture in Organizations.
http://humanresources.about.com/od/organizationalculture/Organizational_Culture_Corporate_Culture_in_Organizations.htm. Retrieved 13 August, 2011
- Danielson, C. (2011). *Enhancing professional practice: A framework for teaching*: ASCD.
- Danielson, C. (2015). Enhancing Student Achievement: Aligned Curriculum
<http://www.ascd.org/publications/books/102109/chapters/Aligned-Curriculum.aspx>. Retrieved 21 February 2015
- Darling-Hammond, L. (1996). What matters most: A competent teacher for every child. *Phi Delta Kappan*, 78(3), 193.
- Darling-Hammond, L. (1997). *The Right To Learn: A Blueprint for Creating Schools That Work*. The Jossey-Bass Education Series: ERIC.
- Deming, E. W. (2006). *The Logic of Evaluation* (E. L.S. a. Marcia'Guttentag Ed.Vol.1).
- Deming, W. E. (1993). *The New Economics*. Cambridge, MA. : MIT Press.
- Department of Education & Training. (2005). *Professional Learning in Effective Schools: The Seven Principles of Highly Effective Professional Learning*. Melbourne: McLaren Press.
- Department of Education. Bangkok Metropolitan Administration. (2014).
<http://www.bangkokeducation.in.th/cms/download/stat/file/14.pdf>
Retrieved 16 March 2014

- DuFour, R. (2003). Leading edge:" Collaboration lite" puts student achievement on a starvation diet. *Journal of Staff Development*, 24(3), 63-64.
- DuFour, R. (2004). What is a " professional learning community"? *Educational leadership*, 61(8), 6-11.
- Eaker, R., & DuFour, R. (2002). *Getting started: Reculturing schools to become professional learning communities*: Solution Tree Press.
- Education, D. o. (2014). Bangkok Metropolitan Administration.
<http://www.bangkokeducation.in.th/cms/download/stat/file/14.pdf> Retrieved 16 March 2014
- Education Reform Office. *National Education Act 1999 with Amendment* Bangkok: Prikwarn Graphic, Co.Ltd.
- Ekachai Keesukpan. (1995). *Management: Skills and Practice*. Bangkok: Sukkaparbjai Printing.
- Elmore, R. F. (1995). Teaching, learning, and school organization: Principles of practice and the regularities of schooling. *Educational Administration Quarterly*, 31(3), 355-374.
- Evaluation. (2014). European Funds Portal.
[ww.ewaluacja.gov.pl/english/Strony/Evaluation.aspx](http://www.ewaluacja.gov.pl/english/Strony/Evaluation.aspx). Retrieved 9 August 2014
- Fayol, H. (1916). Five Function of Management. Available from :
<http://www.provenmodels.com/3>. Retrieved November 24, 2013
- Foreign Office the Government Public Relations Department. THAILAND:
Thailand's Second Phase of Education Reform,.
http://thailand.prd.go.th/view_inside.php?id=5320 Retrieved 5 August, 2011
- Foreign Office the Government Public Relations Department. (2011). THAILAND:
Thailand's Second Phase of Education Reform.
http://thailand.prd.go.th/view_inside.php?id=5320 Retrieved 5 August, 2011
- Fullan, M. (2002). Educational reform as continuous improvement. *The keys to effective schools: Educational reform as continuous improvement*, 1-9.
- Fullan, M. (2007a). *Change theory as a force for school improvement*: Springer.
- Fullan, M. (2007b). *The new meaning of educational change*: Routledge.
- Garavan, T., & Ronan, Carbery. (2012). Encyclopedia of the Sciences of Learning.
http://link.springer.com/referenceworkentry/10.1007%2F978-1-4419-1428-6_136. Retrieved 16 March 2015

- Giles, C., & Hargreaves, A. (2006). The sustainability of innovative schools as learning organizations and professional learning communities during standardized reform. *Educational Administration Quarterly*, 42(1), 124-156.
- Gulick, L., & Urwick, L. (1937). *Papers on the science of administration*. New York: Institute of Public Administration.
- Hallinger, P. (2009). Leadership for 21st century schools: From instructional leadership to leadership for learning.
- Harbour, S. (2015). How to Establish & Maintain Good Relationships in the Workplace. <http://smallbusiness.chron.com/establish-maintain-good-relationships-workplace-22396.html>. Retrieved 11 June 2015
- Hargreaves, A., & Fink, D. (2003). The Seven Principles of Sustainable Leadership.
- Hellriegel, D., & Slocum, J. W. (1989). *Management*. Reading, Mass: Addison-Wesley.
- Hicks, H. G., & Gullett, C. R. (1981). *Management*. Auckland: McGraw-Hill.
- Hokanson, H. (1992). Empowerment in nursing education : A concept analysis and application To philosophy, learning and instruction. *Journal of Advance Nursing administration quarterly*, 17 (May) 610.
- Hord, S. M. (1997). Professional learning communities: Communities of continuous inquiry and improvement.
- Hord, S. M. (2015). Standards for Professional Learning. <http://learningforward.org/standards/learning-communities#.VXhkks-qqko>. Retrieved 10 June 2015
- James, J. H. (2011). *A study of Professional Learning Communities in International Schools in Bangkok, Thailand*.
- Jerald, C. D. (2009). Defining a 21st century education. *Center for Public education*, 79.
- Johnson, B. (2013). The Power of Educational Coaching. <http://www.edutopia.org/blog/power-educational-coaching-ben-johnson>. Retrieved 16 March 2015
- Jurevicius, O. (2013). PEST & PESTEL Analysis. Strategic Management Insight. <http://www.strategicmanagementinsight.com/tools/pest-pestel-analysis.html>. Retrieved 7 June 2015
- Kaminski, S. A. (2011). Implementing a professional learning community: a case study.
- Kamol Pooprasert. (2001). *Academic Management in Schools*. Bangkok: Tips Publication.

- Kaplan, R. S., & Norton, D. P. (1996). The 'Balanced Scorecard' is more than just a new measurement system.(adapted from 'The Balanced Scorecard: Translating Strategy into Action'). *Harvard Business Review*, 74(3), S4.
- Koontz, H., & Cyril, O'Donnell. (1968). Principles of Management: An Analysis of Managerial Functions. <http://nraomtr.blogspot.com/2011/12/principles-of-principles-of-management.html>. Retrieved 1 August, 2014
- Koontz, H., & O'Donnell, C. (1968). *Principles of management : an analysis of managerial functions*. New York: McGraw-Hill.
- Learning by Doing. (2006, 2010). Learning by Doing. <http://www.go.solution-tree.com/PLCbooks> Retrieved 1 August 2014
- Learning Communities. (2015). Learning Communities. <http://www.sedl.org/change/issues/issues72/3.html>. Retrieved 11 June 2015
- Levin, B., & Levin, B. (2008). *How to change 5000 schools: A practical and positive approach for leading change at every level*: Harvard Education Press Cambridge, MA.
- Lieberman, A. (1988). *Building a professional culture in schools*: ERIC.
- Lucas, W. (2013). Elton Mayo. <http://www.stfrancis.edu/content/ba/ghkickul/stuwebs/bbios/biograph/mayo.htm>. Retrieved 15 February 2013
- Marquardt, M. (2004). Action learning. *The Handbook of Experiential Learning*, 94.
- McCrimmon, M. (2013). What is Participative Leadership? . <http://suite101.com/article/what-is-participative-leadership-a23335>. Retrieved 15 February 2013
- McLaughlin, M. W., & Talbert, J. E. (1993). Contexts that matter for teaching and learning: Strategic opportunities for meeting the nation's educational goals.
- Méndez-Morse, S. (1993). Research Associate, Services for School Improvement, SEDL. <http://www.sedl.org/change/issues/issues23.html> Retrieved 2 February, 2015
- Ministry of Education Singapore. (2013). MOE to Enhance Learning of 21st Century Competencies and Strengthen Art, Music and Physical Education <http://www.moe.gov.sg/media/press/2010/03/moe-to-enhance-learning-of-21s.php>. Retrieved 25 February, 2013
- Mitchell, C., & Sackney, L. (2000). *Profound Improvement: Building Capacity for a Learning Community* (Vol. 9): Taylor & Francis.

- Mitchell, D. (2010). Chapter 14: Collaboration. Education Counts. http://www.educationcounts.govt.nz/publications/special_education/education-that-fits/chapter-fourteen-collaboration. Retrieved 16 March 2015
- Nagy, J., & Stephen, B. Fawcett. . (2015.). Section 4. Developing Successful Strategies: Planning to Win. <http://ctb.ku.edu/en/table-of-contents/structure/strategic-planning/develop-strategies/main> Retrieved 23 March 2015
- Narongrith Intanam. (2010). *Development of a Benchmark for Building Professional Learning Communities in Schools*. (Doctoral Dissertation), Chulalongkorn University.
- National Economic and Social Development Board. Office of the Prime Minister. (2007). *SUMMARY THE TENTH NATIONAL ECONOMIC AND SOCIAL DEVELOPMENT PLAN*. Bangkok, Thailand.
- Nattapan Kejoranant. (2001). *TQM Strategy for Building Quality Organisation*. Bangkok.
- Nipa Yamwagee. (2011). Programme for International Student Assessment 2009 (PISA 2009). http://www.en.moe.go.th/index.php?option=com_content&view=article&id=210:programme-for-international-student-assessment-2009-pisa-2009&catid=1:news&Itemid=42. Retrieved 13 August 2011
- Niramit Tiamtan. (2012). *Balanced Scorecard and Management Strategies: Art and Science for Modern Organisation*. Bangkok: Panyachon Printing.
- Nirgudka, A. P., M. E. . (1996). Strategy. <http://maaw.info/ArticleSummaries/ArtSumPorter96.htm>. Retrieved 15 February 2013
- North Central Regional Educational Laboratory. (2015). Professional Development for Teachers. <http://www.ncrel.org/sdrs/areas/issues/educatrs/profdevl/pd2prof.htm>. Retrieved 31 January, 2015
- Office of the National Education Commission. (1999). National Education Act B.E.2542 (1999) and Amendments (Second National Education Act B.E. 2545 (2002). http://www.onesqa.or.th/en/publication/nation_edbook.pdf. Retrieved 13 August 2011
- Office of the National Education Commission. (2003). National Education Act B.E.2542 (1999) and Amendments (Second National Education Act B.E. 2545 (2002). http://www.onesqa.or.th/en/publication/nation_edbook.pdf. Retrieved 13 August 2011
- Owen, J. M. (1993). *Program Evaluation forms and Approach*. Sydney: Southwood Press.

- P N P, R., . Tripathi (2007). Principles of Management.
<http://books.google.co.th/books?id=XYcUJNSRNJYC&pg=PA3&lpg=PA3&dq=ernest+dale+1973+planning+definition&source=bl&ots=eU6W7bG4lP&sig=D8t2Hen6XJfDonuk4oFwNOaCFSM&hl=th&sa=X&ei=otbsU6LODJHk8AWvyoCwCw&ved=0CCMQ6AEwAA#v=onepage&q=ernest%20dale%201973%20planning%20definition&f=false>. Retrieved 15 August 2014
- Parsloe, E. (2008). What is Mentoring? .
<http://www.mentorset.org.uk/pages/mentoring.htm>. Retrieved 16 March 2015
- Partnership for 21st Century Skills. (2008). 21st Century Skills, Education & Competitiveness A Resource and Policy Guide.
www.21STCENTURYSKILLS.ORG. Retrieved 21 May, 2015
- PISA. (2009). Programme for International Student Assessment
http://www.en.moe.go.th/index.php?option=com_content&view=article&id=210:programme-for-international-student-assessment-2009-pisa-2009&catid=1:news&Itemid=42. Retrieved 13 August 2011
- PLCWashington.org. (2011). Reflective Dialogue.
<http://www.plcwashingon.org/Page/86>. Retrieved 16 March 2015
- Porter, M. E. (1996). What is strategy? *Published November*.
- Powell, W. (2015). Chapter 5. Collaboration. U.S. Department of State. Diplomacy in Action. <http://www.gov/m/a/os/43980.htm> Retrieved 16 March 2015
- Preeyaporn Wonganuttraroj. (1992). *Academic Management*. Bangkok: Additional Resource Center Bangkok.
- Preut Siribanpitak (2009). *Management and Educational Provision for a Small World*. Bangkok: Prikwan Graphic, Co. Ltd.
- professional development. (2009). Guidelines for your continuing professional development (CPD). <http://www.ifl.ac.uk>. Retrieved 5 August 2009
- Professional Development. (2015). Professional Learning Communities.
<http://www.ncpublicschools.org/profdev/resources/proflearn/att1>. Retrieved 16 March 2015
- Professional Learning Communities. (2006). *Professional Learning Communities: An Exploration*. Alberta. Canada: Alberta Education.
- Quality research INTERNATIONAL. (2011). Analytic Quality Glossary.
<http://www.qualityresearchinternational.com/glossary/index.htm#m>. Retrieved 15 August, 2011
- Rahman, S. H. (2011). *Influence of professional learning community (PLC) on secondary science teachers' culture of professional practice: The case of*

Bangladesh. Paper presented at the Asia-Pacific Forum on Science Learning and Teaching.

Reeves, D. B. (2009). *Leading change in your school*. Alexandria, VA: ASCD.

Reform, A. I. f. S. (1998). *Critical Friends Groups in Action: Facilitator's Guide. Facilitator's Guide. Professional Learning Communities: Professional Development Strategies that Improve Instruction*. Providence: Brown University.

Regional Cooperation Office for City Informatization. (2010). THAILAND: Thailand's Second Phase of Education Reform.
http://unpan1.un.org/intradoc.cgi/idc.cgi_isapi.dll?IdcService=GET_HIGHLI GHT_INFO&QueryText=tourism&SortField=Score&SortOrder=Desc&dDocName=UNPAN043208&HighlightType=HtmlHighlight&dWebExtension=htm#4_3_8. Retrieved 13 August 2011

Riley, J. (2012). *Human Resource Management. Motivation Theory – Herzberg*.
http://www.tutor2u.net/business/people/motivation_theory_herzberg.asp. Retrieved 15 February 2012

Rizvi, F., & Lingard, B. (2009). *Globalizing education policy*: Routledge.

Roberts, M. L. (2010). *Improving student achievement through professional learning communities*.

Roongchatchadaporn Wehachart. (2007). *Academic Management in Schools of Basic Level*. Songkla: Thaksin University Book Centre.

Rouse, M. (2007). *Implementation*.
<http://searchcrm.techtarget.com/definition/implementation>. Retrieved 1 August 2014

Rowley, J. B. (1999). The good mentor. *Educational leadership*, 56(8), 20-22.

Rungsun Maneelek. (2006). *Strategic Planning and Budgeting in Schools*. Bangkok: Great Education.

Saardlak Chongkhlaiklang. (2009). *Development of a Management Model for the Empowerment of Teachers in Basic Education Institutions*. (Doctoral Dissertation), Chulalongkorn University.

SAGE. (2011). THE PRINCIPAL AS PROFESSIONAL LEARNING COMMUNITY LEADER. *Building Professional Learning Communities*.
http://www.sagepub.com/upm-data/25986_Chapter_1.pdf. Retrieved 13 August 2011

Sakda Sakonthawat. (2012). *Management Strategies of Schools under the Saint Gabriel's Foundation of Thailand to Enhance Sustainable Environmental Development*. (Doctoral Dissertation), Chulalongkorn University.

- Samarn Aswapoom. (2008). *Educational Administration in the New Era: Concepts, Theories and Practices*. Rajabhat Ubon Ratchathani University, Ubon Ratchathani.
- Schmoker, M. (2005). The new fundamentals of leadership. *Sedl Letter*, 27(2), 3-7.
- Scott, C. D., & Jaffe, D. T. (1994). *Empowerment : building a committed workforce*. London: Kogan Page.
- Sears, J. B. (1950). *The nature of the administrative process: with special reference to public school administration*: McGraw-Hill.
- SEDL. (2011a). Advancing Research Improving Education. An Affiliate of American Institutes for Research. Strategies 1 <http://www.sedl.org>. Retrieved 19 may, 2014
- SEDL. (2011b). Professional Learning Communities: What Are They And Why Are They Important? <http://www.sedl.org/change/issues/issues61/outcomes.html>. Retrieved 13 August 2011
- Senge, P. (2014). Peter Senge and the learning organization. Retrieved 17 August 2014
- Senge, P. M. (2006). *The fifth discipline: The art and practice of the learning organization*: Broadway Business.
- Sergiovanni, T., & Starratt, R. (2006). *Supervision: A redefinition*: McGraw-Hill Humanities/Social Sciences/Languages.
- Simon, H. A., Smithburg, D. W., & Thompson, V. A. (1950). *Public administration*. New York: Knopf.
- Sirinun Sriveerasakul. (2010). *Strategies to enhance good character of students in schools under the foundation of the Church of Christ in Thailand*. (Doctoral), Chulalongkorn University.
- Siriwan Serirat. (2002). *Organisation and Management*. Bangkok: Diamond in Business World.
- Smith, M. (2001). Peter Senge and the learning organization the encyclopedia of informal education. Retrieved February 1, 2004.
- Southwest Educational Development Laboratory. (2005). Reading First Notebook. <http://www.sedl.org> Retrieved 31 January 2015
- Spencer, J. (2009). Why Strategic Management so Important in Every Aspect of Business. <http://voices.yahoo.com/why-strategic-management-so-important-every-aspect-3700596.html>. Retrieved 29 August 2012
- Stansbury, G. W., & Huenecke, D. (1973). Curriculum Management and Instructional Development: A Cooperative Venture. *Educational leadership*, 30(4), 318-320.

- Stoll, L., Fink, D., & Earl, L. M. (2003). *It's about learning (and it's about time)*: Psychology Press.
- Strategic Planning Basics. (1998-2014). Balanced Scorecard Institute, a Strategy Management Group company.
<http://balancedscorecard.org/Resources/Strategic-Planning-Basics>. Retrieved 12 June 2015
- STRUCTURAL POLICY COUNTRY NOTES THAILAND. (2015). The Economic Outlook for Southeast Asia, China and India 2014: Beyond the Middle-Income Trap. Retrieved 5 July 2015
- Supanee Salidwanich. (2011). *Strategic Management.: Concepts and Theories*. Bangkok: Thammasart University Printing.
- Suwimol Wongwanich. (2007). *Need Assessment Research*. Bangkok: Chulalongkorn University Printing.
- Teachers and Educational Personnel Council Act. (2003).
http://thailaws.com/law/t_laws/tlaw0450.pdf. Retrieved 21 July 2015
- Technology-Enhanced Learning. (2015). Center for Teaching and Learning.
<http://ctl.utexas.edu/teaching/technology-enhanced-learning>. Retrieved 15 February 2015
- Terry, G. R. (2014). Principles of Management. 3rd edition.
<http://books.google.co.th/books?id=XYcUJNSRNJYC&pg=PA3&lpg=PA3&q=ernest+dale+1973+planning+definition&source=bl&ots=eU6W7bG4lP&sig=D8r2Hen6XJfDonuk4oFwNOaCFSM&hl=th&sa=X&ei=otbsU6LODJHk8AWvyoCwCw&ved=0CCMQ6AEwAA#v=onepage&q=ernest%20dale%201973%20planning%20definition&f=false>. Retrieved 14 August 2014
- The How - to Guide for Educator. (2013). Professional Learning Communities.
<https://sites.google.com/site/proflearncommunities>. Retrieved 15 February 2013
- The Literacy and Numeracy Secretariat: Capacity Building Series. (2007). *Professional Learning Communities: A Model for Ontario Schools*. Ontario.
- Thompson, S. C., Gregg, L., & Niska, J. M. (2004). Professional Learning Communities, Leadership, and Student Learning. *RMLE Online: Research in Middle Level Education*, 28(1), 1-15.
- Tomlinson, H. (2004). *Educational leadership: Personal growth for professional development*: Sage.
- UNESCO. (2011). UNESCO Bangkok supports Thailand's second decade of education reform using project-based learning and ICT.
http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Thailand.pdf Retrieved 29 August 2012

- Vescio, V., Ross, D., & Adams, A. (2006). *A review of research on professional learning communities: What do we know? Paper presented at the NSRF Research Forum January, 2006.* Paper presented at the Paper presented at the NSRF Research Forum.
- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and teacher education*, 24(1), 80-91.
- Vicharn Panich (2011). Entertaining Teachers' Lives to Professional Learning Communities. Translated from *Learning by Doing : A Handbook for Professional Learning Communities at Work.*
<https://www.gotoknow.org/posts/451458>. Retrieved 3 February 2015
- WEF. The Global Competitiveness Report (2013 – 2014).
<http://www.weforum.org/reports/global-competitiveness-report-2013-2014>. Retrieved 21 July 2015
- Wheelen, T., & Hunger, J. (2006). *Strategic management and business policy: concepts.*
- Wheelen T. L, H., . D. J (2007). *Fundamentals of Strategic Management'* 2007 Ed.
https://books.google.co.th/books?id=xr64aks8wCEC&pg=PA139&dq=Strategic+Management+Wheelen+and+Hunger+Model&hl=en&sa=X&ei=_l2IVN_mGc7JuAS49IK4BQ&ved=0CBsQ6AEwAA#v=onepage&q=Strategic%20Management%20Wheelen%20and%20Hunger%20Model&f=false
Retrieved 10 December 2014
- Wheelen, T. L., & Hunger, J. D. (1995). *Strategic management and business policy.* Reading, Mass: Addison-Wesley.
- Wikipedia. (2014). Implementation. <http://en.wikipedia.org/wiki/Implementation>. Retrieved 1 August 2014
- Wohlstetter, P., & Mohrman, S. A. (1993). *School-Based Management: Strategies for Success.*
- Woralak Chukamnerd and Ekarin Sungthong. (2014a). Components of Learning Areas of Teacher Professional Learning Communities in the Thai Schools' Contexts, the Teaching and Learning Approaches are aligned with the Learning of the 21st Century. <http://gsbooks.gs.kku.ac.th/57/grc15/files/hdo6.pdf>. Retrieved 22 January 2015
- Woralak Chukamnerd and Ekarin Sungthong. (2014b). Professional Learning Community of in School for Teacher Professional Development Based on Learner Centered Approach. .
<http://journal.oas.psu.ac.th/index.php/asj/article/viewFile/125/688>. Retrieved 22 January 2015

Yamane. (1973). *Statistic : An Introductive Analysis*. . New York: Harper and Row Publisher.

Yamwagee, N. (2011). Programme for International Student Assessment 2009
http://www.en.moe.go.th/index.php?option=com_content&view=article&id=210:programme-for-international-student-assessment-2009-pisa-2009&catid=1:news&Itemid=42. Retrieved 13 August 2011

Yuttana Prommanee. (2004). Planning to Practice.
<http://www.pncc.ac.th/pncc/wrod/plan.doc>. Retrieved 12 June 2556





APPENDIX

จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

Appendix A
Research Tools



ชุดที่.....

แบบสอบถามเพื่อการวิจัย

เรื่อง กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัด กรุงเทพมหานคร

คำชี้แจง

การศึกษาวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาสภาพปัจจุบันและสภาพที่พึงประสงค์ของการบริหารโรงเรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพซึ่งผลที่ได้จากผู้ตอบแบบสอบถามจะนำไปใช้ในการวิเคราะห์จุดแข็ง จุดอ่อน โอกาส และภาวะคุกคาม และนำไปใช้เพื่อพัฒนากลยุทธ์การบริหารโรงเรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพ ดังนั้นผู้วิจัยจึงขอความอนุเคราะห์จากท่านในการตอบแบบสอบถาม ในทุกๆข้อคำถามให้ตรงกับความคิดเห็นของท่านให้มากที่สุด เพื่อเป็นประโยชน์ต่องานวิจัย คำตอบในการตอบแบบสอบถามครั้งนี้จะไม่มีการทบทวนต่อท่านและการปฏิบัติงานของท่านแต่ประการใด

แบบสอบถามมีจำนวนทั้งหมด 2 ฉบับ เป็นแบบสอบถามสำหรับผู้บริหาร จำนวน 1 ฉบับ และครูผู้สอนจำนวน 1 ฉบับ

แบบสอบถามชุดนี้แบ่งออกเป็น 3 ตอน ประกอบด้วย

ตอนที่ 1 ข้อมูลพื้นฐานทั่วไปของผู้ตอบแบบสอบถาม โดยใช้แบบตรวจสอบรายการ (Checklist)

ตอนที่ 2 ข้อมูลเกี่ยวกับสภาพปัจจุบันและสภาพที่พึงประสงค์ของการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร โดยใช้แบบสอบถามแบบมาตราส่วนประมาณค่า (Rating Scale) 5 ระดับ

ตอนที่ 3 ข้อเสนอแนะเพิ่มเติมเกี่ยวกับการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร

ผู้วิจัยขอกราบขอบพระคุณทุกท่านเป็นอย่างสูง ที่กรุณาให้ความอนุเคราะห์เสียสละเวลาของท่านให้ความร่วมมือในการตอบแบบสอบถามเพื่อการวิจัยครั้งนี้เป็นอย่างดี และขอความกรุณาให้ความอนุเคราะห์ส่งแบบสอบถามกลับคืนผู้วิจัยโดยใส่ซองที่ผู้วิจัยได้ติดแสตมป์เรียบร้อยแล้ว ส่งคืนทางไปรษณีย์ถึงผู้วิจัย ภายในวันที่ 24 กุมภาพันธ์ 2558

นางสาวกาญจน์วรินทร์ พลอนันต์

นิสิตปริญญาโทบริหารศึกษาศาสตร์ สาขาวิชาบริหารการศึกษา
ภาควิชานโยบายการจัดการและความเป็นผู้นำทางการศึกษา

คณะครุศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

E-mail: kaanwarin.po@standrews.ac.th Tel. 081-566-9514

ตอนที่ 1 ข้อมูลพื้นฐานของผู้ตอบแบบสอบถาม

คำชี้แจง โปรดเขียนเครื่องหมาย ✓ ลงในช่อง ตามความเป็นจริง

1. เพศ

- 1) ชาย 2) หญิง

2. อายุ (เศษของปีตั้งแต่ 6 เดือนขึ้นไปนับเป็น 1 ปี)

- 1) ไม่เกิน 30 ปี 2) 31 - 35 ปี 3) 36 - 40 ปี
 4) 41 - 45 ปี 5) 46 - 50 ปี 6) 51 - 55 ปี
 7) 56 ปีขึ้นไป

3. วุฒิการศึกษาสูงสุด

- 1) ต่ำกว่าปริญญาตรี 2) ปริญญาตรี
 3) ปริญญาโท 4) ปริญญาเอก

4. ตำแหน่งปัจจุบัน

- 1) ผู้บริหาร 2) ครูผู้สอน

5. ระยะเวลาในการดำรงตำแหน่งปัจจุบัน (เศษของปีตั้งแต่ 6 เดือนขึ้นไปนับเป็น 1 ปี)

- 1) ไม่เกิน 10 ปี 2) 11-20 ปี
 3) 21-30 ปี 4) มากกว่า 30 ปี ขึ้นไป

6. กลุ่มพื้นที่การศึกษาที่โรงเรียนตั้งอยู่

- 1) กลุ่มกรุงเทพเหนือ 2) กลุ่มกรุงเทพกลาง 3) กลุ่ม
กรุงเทพใต้
 4) กลุ่มกรุงเทพตะวันออก 5) กลุ่มกรุงธนเหนือ 6) กลุ่ม
กรุงธนใต้

จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

ตอนที่ 2

ข้อมูลเกี่ยวกับสภาพปัจจุบันและสภาพที่พึงประสงค์ของการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทาง
วิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร

คำชี้แจง โปรดทำ เครื่องหมาย ✓ ลงในช่องระดับสภาพความเป็นจริง ที่ตรงกับระดับความความคิดเห็นของท่านต่อ
สภาพปัจจุบัน(สภาพที่เกิดขึ้นและเป็นอยู่ในปัจจุบัน) และเครื่องหมาย ✓ ลงในช่องระดับสภาพที่พึงประสงค์
(สภาพที่ต้องการให้เกิดขึ้น) ของการบริหารโรงเรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพ ซึ่งแบ่งตามเกณฑ์ 5
ระดับ โดยกำหนดเกณฑ์การให้คะแนนดังนี้

- | | | | | |
|---|---------|---|-----|----------------------------------|
| 5 | หมายถึง | ระดับสภาพความเป็นจริงในปัจจุบันมากที่สุด | และ | ระดับสภาพที่พึงประสงค์มากที่สุด |
| 4 | หมายถึง | ระดับสภาพความเป็นจริงในปัจจุบันมาก | และ | ระดับสภาพที่พึงประสงค์มาก |
| 3 | หมายถึง | ระดับสภาพความเป็นจริงในปัจจุบันปานกลาง | และ | ระดับสภาพที่พึงประสงค์ปานกลาง |
| 2 | หมายถึง | ระดับสภาพความเป็นจริงในปัจจุบันน้อย | และ | ระดับสภาพที่พึงประสงค์น้อย |
| 1 | หมายถึง | ระดับสภาพความเป็นจริงในปัจจุบันน้อยที่สุด | และ | ระดับสภาพที่พึงประสงค์น้อยที่สุด |

ข้อคำถาม	สภาพปัจจุบัน					สภาพพึงประสงค์					
I. การกำหนดวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียนร่วมกัน (Shared vision, mission and goals)											
1. ผู้บริหารและครูกำหนดวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียนร่วมกัน	5	4	3	2	1		5	4	3	2	1
2. การออกแบบและพัฒนาหลักสูตรของโรงเรียนมีความสอดคล้องกับวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียน	5	4	3	2	1		5	4	3	2	1
3. แผนจัดการเรียนรู้กำหนดจุดประสงค์การเรียนรู้ ผลการเรียนรู้ที่คาดหวัง และประสบการณ์การเรียนรู้ ที่มีความสอดคล้องกับวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียน	5	4	3	2	1		5	4	3	2	1
4. การวัดและประเมินผลการเรียนรู้ของผู้เรียนมีความสอดคล้องกับวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียน	5	4	3	2	1		5	4	3	2	1
5. การพัฒนาทักษะและความรู้ในวิชาชีพของครูมีความสอดคล้องกับวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียน	5	4	3	2	1		5	4	3	2	1
6. การเมืองและนโยบายของรัฐเอื้อให้ผู้บริหารและครูกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนร่วมกันเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
7. สภาพเศรษฐกิจเอื้อให้ผู้บริหารและครูกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนร่วมกันเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
8. สภาพสังคมเอื้อให้ผู้บริหารและครูกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนร่วมกันเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
9. ความก้าวหน้าทางเทคโนโลยีเอื้อให้ผู้บริหารและครูกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนร่วมกันเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
II. การมีภาวะผู้นำร่วม และมีส่วนร่วมในการตัดสินใจ (Shared Leadership)											
10. ครูมีส่วนร่วมในการตัดสินใจกำหนดมาตรฐานและสาระการเรียนรู้ ของหลักสูตรของโรงเรียน	5	4	3	2	1		5	4	3	2	1
11. ครูมีส่วนร่วมในการตัดสินใจกำหนดจุดประสงค์การเรียนรู้ ผลการเรียนรู้ที่คาดหวังและประสบการณ์การเรียนรู้ที่เหมาะสมกับวัยและพัฒนาการในการเรียนรู้ของผู้เรียน	5	4	3	2	1		5	4	3	2	1
12. ครูมีส่วนร่วมในการตัดสินใจกำหนดวิธีและพัฒนาเกณฑ์การวัดและประเมินผลเรียนรู้ที่สอดคล้องกับมาตรฐานและจุดประสงค์การเรียนรู้	5	4	3	2	1		5	4	3	2	1

13. ครูมีส่วนร่วมในการตัดสินใจต่อแนวทางการพัฒนาทักษะและความรู้ในวิชาชีพ	5	4	3	2	1		5	4	3	2	1
14. การเมืองและนโยบายของรัฐเอื้อให้ครูมีส่วนร่วมในการตัดสินใจในการดำเนินงานเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
15. สภาพเศรษฐกิจเอื้อให้ครูมีส่วนร่วมในการตัดสินใจในการดำเนินงานเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
16. สภาพสังคมเอื้อให้ครูมีส่วนร่วมในการตัดสินใจในการดำเนินงานเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
17. ความก้าวหน้าทางเทคโนโลยีเอื้อให้ครูมีส่วนร่วมในการตัดสินใจในการดำเนินงานเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
III. การเรียนรู้ร่วมกันจากการตั้งคำถาม การสนทนาแลกเปลี่ยนความรู้ความคิดเห็นและนำความรู้ไปใช้ (Collective learning through inquiry and reflective dialogues and application of learning)											
• การเรียนรู้ร่วมกันจากการตั้งคำถาม การสนทนาแลกเปลี่ยนความรู้ความคิดเห็นเกี่ยวกับประเด็นปัญหาการจัดการเรียนรู้ (Collective learning through inquiry and reflective dialogues)											
18. ครูเรียนรู้ร่วมกันจากการตั้งคำถาม สนทนาแลกเปลี่ยนความรู้ความคิดเห็นในการประชุมเกี่ยวกับปัญหาด้านมาตรฐานและสาระการเรียนรู้ และแนวทางในการแก้ไขปรับปรุง	5	4	3	2	1		5	4	3	2	1
19. ครูเรียนรู้ร่วมกันจากการตั้งคำถาม สนทนาแลกเปลี่ยนความรู้ความคิดเห็นในการประชุมเกี่ยวกับปัญหาด้านกิจกรรม โครงการต่างๆ และประสบการณ์การเรียนรู้ และแนวทางในการแก้ไขปรับปรุง	5	4	3	2	1		5	4	3	2	1
20. ครูเรียนรู้ร่วมกันจากการตั้งคำถาม สนทนาแลกเปลี่ยนความรู้ความคิดเห็นในการประชุมเกี่ยวกับปัญหาด้านผลสัมฤทธิ์ของผู้เรียน และแนวทางในการแก้ไขปรับปรุง	5	4	3	2	1		5	4	3	2	1
21. ครูเรียนรู้ร่วมกันจากการตั้งคำถาม สนทนาแลกเปลี่ยนความรู้ความคิดเห็นในการประชุมเกี่ยวกับปัญหาด้านการพัฒนาทักษะและความรู้ในวิชาชีพของครู และแนวทางในการแก้ไขปรับปรุง	5	4	3	2	1		5	4	3	2	1

22. การเมืองและนโยบายของรัฐเอื้อให้ครูเรียนรู้ร่วมกันจากการตั้งคำถาม สนทนาแลกเปลี่ยนความรู้ความคิดเห็นในการประชุมเกี่ยวกับปัญหาด้านการจัดการเรียนรู้ และแนวทางในการแก้ไขปรับปรุง เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
23. สภาพเศรษฐกิจเอื้อให้ครูเรียนรู้ร่วมกันจากการตั้งคำถาม สนทนาแลกเปลี่ยนความรู้ความคิดเห็นในการประชุมเกี่ยวกับปัญหาด้านการจัดการเรียนรู้ และแนวทางในการแก้ไขปรับปรุง เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
24. สภาพสังคมเอื้อให้ครูเรียนรู้ร่วมกันจากการตั้งคำถาม สนทนาแลกเปลี่ยนความรู้ความคิดเห็นในการประชุมเกี่ยวกับปัญหาด้านการจัดการเรียนรู้ และแนวทางในการแก้ไขปรับปรุง เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
25. ความก้าวหน้าทางเทคโนโลยีเอื้อให้ครูเรียนรู้ร่วมกันจากการตั้งคำถาม สนทนาแลกเปลี่ยนความรู้ความคิดเห็นในการประชุมเกี่ยวกับปัญหาด้านการจัดการเรียนรู้ และแนวทางในการแก้ไขปรับปรุง เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
<ul style="list-style-type: none"> ● การนำความรู้ไปใช้พัฒนาการจัดการเรียนรู้ (Application of Learning) 											
26. ครูนำความรู้ที่ได้จากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็น ไปปรับปรุงพัฒนาหลักสูตรของโรงเรียนให้ครอบคลุมและเหมาะสมกับการเรียนรู้ของผู้เรียนยิ่งขึ้น	5	4	3	2	1		5	4	3	2	1
27. ครูนำความรู้ที่ได้จากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็น ไปปรับปรุงพัฒนาแผนการจัดการเรียนรู้ให้เหมาะสมกับการเรียนรู้ของผู้เรียนยิ่งขึ้น	5	4	3	2	1		5	4	3	2	1
28. ครูนำความรู้ที่ได้จากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นไปปรับปรุงพัฒนาวิธีและเกณฑ์การวัดและประเมินผลการเรียนรู้ให้เหมาะสมยิ่งขึ้น	5	4	3	2	1		5	4	3	2	1
29. ครูนำความรู้ที่ได้จากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นไปปรับปรุงพัฒนาแนวทางการพัฒนาวิชาชีพของครูให้เหมาะสมยิ่งขึ้น	5	4	3	2	1		5	4	3	2	1
30. การเมืองและนโยบายของรัฐเอื้อให้ครูนำความรู้ที่ได้จากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็น ไปปรับปรุงพัฒนาการจัดการเรียนรู้ให้เหมาะสมยิ่งขึ้นเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
31. สภาพเศรษฐกิจเอื้อให้ครูนำความรู้ที่ได้จากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็น ไปปรับปรุงพัฒนาการ	5	4	3	2	1		5	4	3	2	1

39. สภาพเศรษฐกิจเอื้อให้ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
40. สภาพสังคมเอื้อให้ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
41. ความก้าวหน้าทางเทคโนโลยีเอื้อให้ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
<ul style="list-style-type: none"> มีการสังเกตการสอนในชั้นเรียนของเพื่อนครูและให้ข้อมูลย้อนกลับเพื่อนำไปกำหนดแนวทางในการปรับปรุงการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน (Making peer's observation and giving feedback to improve student achievement) 											
42. มีการสังเกตการสอนในชั้นเรียนของเพื่อนครูและให้ข้อมูลย้อนกลับ	5	4	3	2	1		5	4	3	2	1
43. ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาหลักสูตรของโรงเรียนให้เหมาะสมต่อการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน	5	4	3	2	1		5	4	3	2	1
44. ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาแผนจัดการเรียนรู้ให้เหมาะสมต่อการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน	5	4	3	2	1		5	4	3	2	1
45. ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาวิธีและเกณฑ์การวัดและประเมินผลการเรียนรู้ให้เหมาะสมต่อการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน	5	4	3	2	1		5	4	3	2	1
46. ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาทักษะและความรู้ในวิชาชีพของครูให้เหมาะสมต่อการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน	5	4	3	2	1		5	4	3	2	1
47. การเมืองและนโยบายของรัฐเอื้อให้ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
48. สภาพเศรษฐกิจเอื้อให้ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1

49. สภาพสังคมเอื้อให้ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
50. ความก้าวหน้าทางเทคโนโลยีเอื้อให้ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
V. สภาพของการสนับสนุนชุมชนแห่งการเรียนรู้ทางวิชาชีพ (Supportive Conditions)											
<ul style="list-style-type: none"> การสนับสนุนเชิงโครงสร้าง ได้แก่การจัดสรรเวลาในการประชุมและดำเนินการ จัดระบบสนับสนุนต่างๆ ได้แก่ การสื่อสาร ฐานระบบข้อมูลเทคโนโลยีสารสนเทศ และมอบอำนาจให้ครู เป็นต้น(Structural Conditions) 											
51. ผู้บริหารจัดสรรเวลาและระบบสนับสนุนในการประชุมและดำเนินการ และมอบอำนาจให้ครูดำเนินงานในการออกแบบและพัฒนาหลักสูตรของโรงเรียน	5	4	3	2	1		5	4	3	2	1
52. ผู้บริหารจัดสรรเวลาและระบบสนับสนุนในการประชุมและดำเนินการ และมอบอำนาจให้ครูดำเนินงานในการในการจัดทำแผนจัดการเรียนรู้ และจัดประสบการณ์การเรียนรู้ที่เหมาะสมกับการเรียนรู้ของผู้เรียน	5	4	3	2	1		5	4	3	2	1
53. ผู้บริหารจัดสรรเวลาและระบบสนับสนุนในการประชุมและดำเนินการ และมอบอำนาจให้ครูดำเนินงานในการพัฒนาวิธีและเกณฑ์การวัดและประเมินผลการเรียนรู้ และนำข้อมูลจากการวิเคราะห์ผลการประเมินไปพัฒนาปรับปรุงผู้เรียน	5	4	3	2	1		5	4	3	2	1
54. ผู้บริหารจัดสรรเวลาและระบบสนับสนุนในการประชุมและดำเนินการ และมอบอำนาจให้ครูดำเนินงานในการพัฒนาทักษะและความรู้ในวิชาชีพของครู	5	4	3	2	1		5	4	3	2	1
55. การเมืองและนโยบายของรัฐเอื้อให้ผู้บริหารจัดสรรเวลาและระบบสนับสนุนในการประชุมและดำเนินการ และมอบอำนาจให้ครูดำเนินงาน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
56. สภาพเศรษฐกิจเอื้อให้ผู้บริหารจัดสรรเวลาและระบบสนับสนุนในการประชุมและดำเนินการ และมอบอำนาจให้ครูดำเนินงาน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1

57. สภาพสังคมเอื้อให้ผู้บริหารจัดการสรรเวลาและระบบสนับสนุนในการประชุมและดำเนินการ และมอบอำนาจให้ครูดำเนินงาน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
58. ความก้าวหน้าทางเทคโนโลยีเอื้อให้ผู้บริหารจัดการสรรเวลาและระบบสนับสนุนในการประชุมและดำเนินการ และมอบอำนาจให้ครูดำเนินงาน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
<ul style="list-style-type: none"> การสนับสนุนเชิงศักยภาพของคน ได้แก่ การมีทักษะความรู้ในวิชาชีพ ทักษะคิดเชิงบวกในการรับฟัง ใฝ่หาใจ และเต็มใจที่จะปรับปรุงและพัฒนา เป็นต้น (People Capacities) 											
59. ครูมีทักษะความรู้ในวิชาชีพ ทักษะคิดเชิงบวกในการรับฟัง ใฝ่หาใจและเต็มใจที่จะปรับปรุงและพัฒนาหลักสูตรของโรงเรียน	5	4	3	2	1		5	4	3	2	1
60. ครูมีทักษะความรู้ในวิชาชีพ ทักษะคิดเชิงบวกในการรับฟัง ใฝ่หาใจและเต็มใจที่จะปรับปรุงและพัฒนาแผนจัดการเรียนรู้ และจัดการเรียนรู้ที่เหมาะสมกับวัยและพัฒนาการในการเรียนรู้ของผู้เรียน	5	4	3	2	1		5	4	3	2	1
61. ครูมีทักษะความรู้ในวิชาชีพ ทักษะคิดเชิงบวกในการรับฟัง ใฝ่หาใจและเต็มใจที่จะปรับปรุงและพัฒนาวิธีและเกณฑ์วัดและประเมินผลการเรียนรู้ และนำข้อมูลจากการวิเคราะห์ผลการประเมิน ไปพัฒนาปรับปรุงผู้เรียน	5	4	3	2	1		5	4	3	2	1
62. ครูมีทักษะความรู้ในวิชาชีพ ทักษะคิดเชิงบวกในการรับฟัง ใฝ่หาใจและเต็มใจที่จะปรับปรุงและพัฒนาทักษะและความรู้ในวิชาชีพของครู	5	4	3	2	1		5	4	3	2	1
63. การเมืองและนโยบายของรัฐเอื้อให้ครูมีทักษะความรู้ในวิชาชีพ ทักษะคิดเชิงบวกในการรับฟัง ใฝ่หาใจและเต็มใจที่จะปรับปรุงและพัฒนา เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
64. สภาพเศรษฐกิจเอื้อให้ครูมีทักษะความรู้ในวิชาชีพ ทักษะคิดเชิงบวกในการรับฟัง ใฝ่หาใจและเต็มใจที่จะปรับปรุงและพัฒนาเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
65. สภาพสังคมเอื้อให้ครูมีทักษะความรู้ในวิชาชีพ ทักษะคิดเชิงบวกในการรับฟัง ใฝ่หาใจและเต็มใจที่จะปรับปรุงและพัฒนา เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1
66. ความก้าวหน้าทางเทคโนโลยีเอื้อให้ครูมีทักษะความรู้ในวิชาชีพ ทักษะคิดเชิงบวกในการรับฟัง ใฝ่หาใจและเต็มใจที่จะปรับปรุงและพัฒนา เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	5	4	3	2	1		5	4	3	2	1

ตอนที่ 3

ข้อเสนอแนะเพิ่มเติมเกี่ยวกับการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร

1. ท่านคิดว่าโรงเรียนมี จุดแข็ง ในด้านใดที่ควรนำมาใช้ในการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร

.....

.....

.....

.....

2. ท่านคิดว่าโรงเรียนมี จุดอ่อน ในด้านใดต่อการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร

.....

.....

.....

.....

3. ท่านคิดว่า ปัจจัยภายนอกเรื่องใดที่เป็น โอกาส ในการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานครและท่านได้ใช้โอกาสนั้นในการบริหารจัดการจนประสบความสำเร็จ อย่างไร

.....

.....

.....

.....

4. ท่านคิดว่า ปัจจัยภายนอกเรื่องใดที่เป็น อุปสรรคต่อการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานครและท่านได้จัดการกับอุปสรรคเหล่านั้นอย่างไร

.....

.....

.....

.....

“ขอขอบคุณทุกท่านที่ให้ความอนุเคราะห์ในการตอบแบบสอบถาม”

Appendix B

Name List of Specialists and Stakeholders

1. A list of specialists who examine the content validity and suitability of the research tool, the questionnaire
2. A list of specialists who examine the first draft of the management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration
3. A list of specialists who participate in the focus group

List of specialists who examine the content validity and suitability of the research tool,
the questionnaire

1. Associate Professor Dr. Charoonsri Madiloggovit
Chair of the Educational Development Programme,
Head of the Department of Educational Policy, Management and Leadership,
Faculty of Education, Chulalongkorn University
2. Assistant Professor Dr. Soison Sakolrak
Assistant Dean for General Management and Human Resource Management
Teaching Programme Lecturer, Department of Curriculum and Instruction,
Faculty of Education, Chulalongkorn University
3. Brother Dr. Sakda Sakonthawat
School Director
Assumption College Bangkok Primary Section

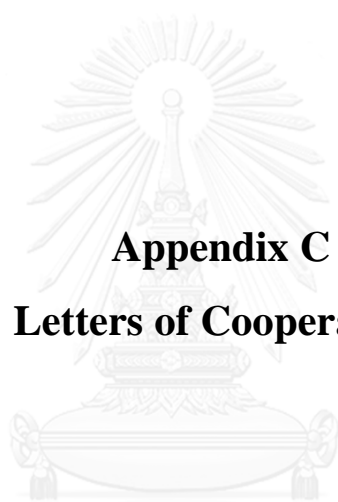
List of specialists who examine the first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration

Name	Title
Dr. Pichet Popakdee	Deputy Director Bangkok Primary Educational Service Area Office
Dr. Sumalee Sutheekul	Educational Supervisor, Special Expert Suphanburi Primary Educational Service Area Office 2
Dr. Sureerat Jeanpong	Associate Dean for Quality Assurance and Special Affairs Faculty of Fine Arts, Srinakharinwirot University
Dr. Thanyawich Wichianpan	Director Office of Research and Academic Services Division Sripathum University, Chonburi Campus
Assistant Professor Dr. Veerawat Patanakulchai	University Lecturer Graduate School Rampaipunnee Rajabhat University
Dr. Waraporn Yamtim	University Lecturer Faculty of Education and Development Sciences Kasetsart University, Kamphaengsaen, Nakorn Pathom
Brother Dr. Sakda Sakonthawat	School Director Assumption College Bangkok Primary Section

Dr. Surada Chaisongkram	School Director Watchanglek School
Dr. Pattra Visavatho	School Director British Columbia International School
Dr. Paradee Khamma	School Director Wat Chanasongkram School
Dr. Supak Orapiriyakul	University Lecturer Faculty of Education Srinakharinwirot University Prasarnmit Teacher <u>Srinakharinwirot University Prasarnmit Demonstration School</u> (Elementary)
Dr. Nicha Chimthongdee	Assistant Director for Academic Affairs Ratanasueksa School, Suphanburi
Dr. Sirinporn Withidsuphalai	Consultant for School Management Threewittaya School
Dr. Yupa Wiangkamol Atdoaddorn	Teacher Pipatratbumroong School, Kalasin
Mrs. Nantaporn Boonyasit	Deputy Director Wat Sitaram School
Mrs. Nucharee Nuchanil	Deputy Director Wat Thongsalangarm School
Ms. Nantikar Singkornrak	Teacher Wat Indrawas School
Mrs. Wanlapa Chansirithong	Teacher Wat Mahathad School
Mr. Prakasit Wadkien	Teacher Rittiyawannalai School
Mr. Pumin Nawapanich	Teacher Wat Krajabpinit School

List of Focus Group Participants

Name	Title
Brother Dr. Sakda Sakonthawat	School Director Assumption College Bangkok
Dr. Sumalee Suteekul	Primary Section Educational Supervisor, Special Expert Suphanburi Primary Educational Area Service Office 2
Dr. Sureerat Jeanpong	Associate Dean for Quality Assurance and Special Affairs Faculty of Fine Arts, Srinakharinwirot University
Dr. Surada Chaisongkram	School Director Watchanglek School
Dr. Pattra Visavatho	School Director British Columbia International School
Dr. Nicha Chimthongdee	Assistant Director for Academic Affairs Ratanasueksa School, Suphanburi
Dr. Sirinporn Withidsuphalai	Consultant for School Management Threewittaya School
Dr. Yupa Wiangkamol Atdoaddorn	Teacher Pipatratbumroong School, Kalasin
Mrs. Nantaporn Boonyasit	Deputy Director Wat Sitaram School
Ms. Nantikar Singkornrak	Teacher Wat Indrawas School
Mr. Prakasit Wadkien	Teacher Rittiyawannalai School
Mrs. Wanlapa Chansirithong	Teacher Wat Mahathad School



Appendix C
Letters of Cooperation

จุฬาลงกรณ์มหาวิทยาลัย
CHULALONGKORN UNIVERSITY

ที่ ศธ 0512.6(2791.10)/58- 0762

คณะครุศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย
ถนนพญาไท กรุงเทพมหานคร 10330

14 กุมภาพันธ์ 2558

เรื่อง ขอความร่วมมือในการเก็บข้อมูลวิจัย

เรียน

สิ่งที่ส่งมาด้วย เครื่องมือที่ใช้ในการวิจัย

ด้วย นางสาวกาญจน์วรินทร์ ผลอนันต์ นิสิตหลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาบริหาร การศึกษา ภาควิชา นโยบาย การจัดการและความเป็นผู้นำทางการศึกษา อยู่ระหว่างการดำเนินงานวิจัย วิทยานิพนธ์เรื่อง “กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัด กรุงเทพมหานคร” โดยมี ผู้ช่วยศาสตราจารย์ ดร.ปองสิน วิเศษสิริ และอาจารย์ ดร.ปิยพงษ์ สุเมตติกุล เป็น อาจารย์ที่ปรึกษา ในการนี้ นิสิตมีความจำเป็นต้องเก็บข้อมูลด้วยแบบสอบถาม กับผู้บริหารสถานศึกษาและ ครูผู้สอน ทั้งนี้ นิสิตผู้วิจัยจะได้ประสานงานในรายละเอียดต่อไป

จึงเรียนมาเพื่อขอความอนุเคราะห์จากท่าน โปรดเป็นผู้ทรงคุณวุฒิดังกล่าวเพื่อประโยชน์ทางวิชาการ ต่อไป และขอขอบคุณมาในโอกาสนี้

ขอแสดงความนับถือ

(รองศาสตราจารย์ ดร.เนาวนิตย์ สงคราม)

รองคณบดี

ปฏิบัติการแทนคณบดี

งานหลักสูตรและการจัดการเรียนการสอน ฝ่ายวิชาการ

โทร. 0-2218-2681-82 ต่อ 612



ที่ ศธ 0512.6(2791.10)/58- 0763

คณะครุศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย
ถนนพญาไท กรุงเทพมหานคร 10330

11 กุมภาพันธ์ 2558

เรื่อง ขอตกลงใช้เครื่องมือวิจัย

เรียน

สิ่งที่ส่งมาด้วย เครื่องมือที่ใช้ในการวิจัย

ด้วย นางสาวกาญจน์วรินทร์ ผลอนันต์ นิสิตหลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาบริหาร การศึกษา ภาควิชา นโยบาย การจัดการและความเป็นผู้นำทางการศึกษา อยู่ระหว่างการดำเนินงานวิจัย วิทยานิพนธ์เรื่อง “กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัด กรุงเทพมหานคร” โดยมี ผู้ช่วยศาสตราจารย์ ดร.ปองสิน วิเศษสิริ และอาจารย์ ดร.ปิยพงษ์ สุเมตติกุล เป็น อาจารย์ที่ปรึกษา ในการนี้ นิสิตมีความจำเป็นต้องขอตกลงใช้เครื่องมือ คือ แบบสอบถาม กับผู้บริหาร สถานศึกษาและครูผู้สอน ทั้งนี้ นิสิตผู้วิจัยจะได้ประสานงานในรายละเอียดต่อไป

จึงเรียนมาเพื่อขอความอนุเคราะห์จากท่านโปรดอนุญาตให้นิสิตได้ขอตกลงใช้เครื่องมือดังกล่าว เพื่อ ประโยชน์ทางวิชาการต่อไป และขอขอบคุณมาในโอกาสนี้

ขอแสดงความนับถือ

(รองศาสตราจารย์ ดร.เนาวนิตย์ สงคราม)

รองคณบดี

ปฏิบัติกรแทนคณบดี

งานหลักสูตรและการจัดการเรียนการสอน ฝ่ายวิชาการ

โทร. 0-2218-2680-82 ต่อ 612

ที่ ศธ 0512.6(2791.10)/58 - 0764



คณะครุศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย
ถนนพญาไท กรุงเทพมหานคร 10330

๑๑ กุมภาพันธ์ 2558

เรื่อง ขอเชิญเป็นผู้ทรงคุณวุฒิตรวจเครื่องมือวิจัย

เรียน ดร.ศักดา สกนธวัฒน์

สิ่งที่ส่งมาด้วย เครื่องมือที่ใช้ในการวิจัย

ด้วย นางสาวกาญจน์วรินทร์ ผลอนันต์ นิสิตหลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาบริหารการศึกษา ภาควิชา นโยบาย การจัดการและความเป็นผู้นำทางการศึกษา อยู่ระหว่างการดำเนินงานวิจัยวิทยานิพนธ์เรื่อง “กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน ในสังกัดกรุงเทพมหานคร” โดยมีผู้ช่วยศาสตราจารย์ ดร.ปองสิน วิเศษศิริ และอาจารย์ ดร.ปิยพงษ์ สุเมตติกุล เป็นอาจารย์ที่ปรึกษา ในการนี้ใคร่ขอเชิญท่านเป็นผู้ทรงคุณวุฒิตรวจเครื่องมือวิจัย ทั้งนี้ นิสิตผู้วิจัยจะได้ประสานงานในรายละเอียดต่อไป

จึงเรียนมาเพื่อขอความอนุเคราะห์จากท่าน โปรดเป็นผู้ทรงคุณวุฒิดังกล่าวเพื่อประโยชน์ทางวิชาการต่อไป และขอขอบคุณมาในโอกาสนี้

ขอแสดงความนับถือ

(รองศาสตราจารย์ ดร.เนาวนิตย์ สงคราม)

รองคณบดี

ปฏิบัติกรแทนคณบดี

งานหลักสูตรและการจัดการเรียนการสอน ฝ่ายวิชาการ

โทร. 0-2218-2681-82 ต่อ 608



บันทึกข้อความ

ส่วนงาน งานหลักสูตรและการจัดการเรียนฯ ฝ่ายวิชาการ คณะครุศาสตร์ จุฬาฯ โทร. 82681-2 ต่อ 608

ที่ ศธ 0512.6(2791.10)/58 - 0765

วันที่ 11 กุมภาพันธ์ 2558

เรื่อง ขอเชิญเป็นผู้ทรงคุณวุฒิตรวจเครื่องมือวิจัย

เรียน รองศาสตราจารย์ ดร.จรรยาศรี มาดิลกโกวิท

ด้วย นางสาวกาญจน์วรินทร์ ผลอนันต์ นิสิตหลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาบริหารการศึกษา ภาควิชานโยบาย การจัดการและความเป็นผู้นำทางการศึกษา อยู่ระหว่างการดำเนินงานวิจัยวิทยานิพนธ์เรื่อง “กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร” โดยมีผู้ช่วยศาสตราจารย์ ดร.ปองสิน วิเศษสิริ และอาจารย์ ดร.ปิยพงษ์ สุเมตติกุล เป็นอาจารย์ที่ปรึกษา ในการนี้ใคร่ขอเชิญท่านเป็นผู้ทรงคุณวุฒิตรวจเครื่องมือวิจัย ทั้งนี้ นิสิตผู้วิจัยจะได้ประสานงานในรายละเอียดต่อไป

จึงเรียนมาเพื่อขอความอนุเคราะห์จากท่าน โปรดเป็นผู้ทรงคุณวุฒิดังกล่าวเพื่อประโยชน์ทางวิชาการต่อไป และขอขอบคุณมาในโอกาสนี้

(รองศาสตราจารย์ ดร.เนาวนิตย์ สงคราม)

รองคณบดี



บันทึกข้อความ

ส่วนงาน งานหลักสูตรและการจัดการเรียนฯ ฝ่ายวิชาการ คณะครุศาสตร์ จุฬาฯ โทร. 82681-2 ต่อ 608

ที่ ศธ 0512.6(2791.10)/58 - 0766

วันที่ 17 กุมภาพันธ์ 2558

เรื่อง ขอเชิญเป็นผู้ทรงคุณวุฒิตรวจเครื่องมือวิจัย

เรียน ผู้ช่วยศาสตราจารย์ ดร.สร้อยสน สกกรักษ์

ด้วย นางสาวกาญจน์วรินทร์ ผลอนันต์ นิสิตหลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาบริหารการศึกษา ภาควิชานโยบาย การจัดการและความเป็นผู้นำทางการศึกษา อยู่ระหว่างการดำเนินงานวิจัยวิทยานิพนธ์เรื่อง “กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร” โดยมีผู้ช่วยศาสตราจารย์ ดร.ปองสิน วิเศษสิริ และอาจารย์ ดร.ปิยพงษ์ สุเมตติกุล เป็นอาจารย์ที่ปรึกษา ในการนี้ใคร่ขอเชิญท่านเป็นผู้ทรงคุณวุฒิตรวจเครื่องมือวิจัย ทั้งนี้ นิสิตผู้วิจัยจะได้ประสานงานในรายละเอียดต่อไป

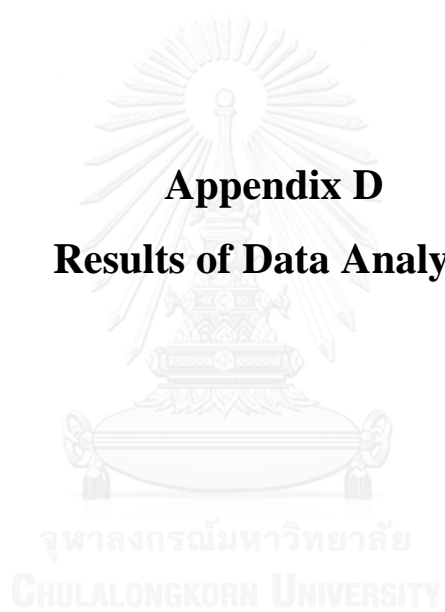
จึงเรียนมาเพื่อขอความอนุเคราะห์จากท่าน โปรดเป็นผู้ทรงคุณวุฒิดังกล่าวเพื่อประโยชน์ทางวิชาการต่อไป และขอขอบคุณมาในโอกาสนี้

(รองศาสตราจารย์ ดร.เนาวนิตย์ สงคราม)

รองคณบดี

CHULALONGKORN UNIVERSITY

Appendix D
Results of Data Analysis



จุฬาลงกรณ์มหาวิทยาลัย

CHULALONGKORN UNIVERSITY

แบบประเมินคุณภาพของแบบสอบถามสำหรับผู้เชี่ยวชาญ

เรื่อง กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร
คำชี้แจง

1. แบบประเมินนี้ใช้ประเมินแบบสอบถามเรื่องกลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานครของผู้เชี่ยวชาญท่านนี้
2. เกณฑ์ในการลงความเห็น มีดังนี้
 - 2.1 ให้ความเห็น +1 เมื่อท่านแน่ใจว่าข้อคำถามนั้นเป็นตัวแทนหรือสอดคล้องกับเนื้อหา
 - 2.2 ให้ความเห็น 0 เมื่อท่านไม่แน่ใจว่าข้อคำถามนั้นเป็นตัวแทนหรือสอดคล้องกับเนื้อหาหรือไม่
 - 2.3 ให้ความเห็น -1 เมื่อท่านแน่ใจว่าข้อคำถามนั้นไม่เป็นตัวแทนหรือไม่สอดคล้องกับเนื้อหา
3. โปรดทำเครื่องหมาย ✓ ลงในช่องความคิดเห็นตามที่ท่านเห็นด้วย
4. หากท่านมีข้อเสนอแนะใดๆ โปรดขีดฆ่า หรือเขียนลงในข้อคำถามที่ท่านเห็นสมควรแก้ไข
5. ผู้วิจัยขอขอบพระคุณท่านเป็นอย่างสูง ที่กรุณาให้ความอนุเคราะห์เสียสละเวลาของท่าน
ในการตรวจสอบความตรงของแบบสอบถามเพื่อการวิจัยครั้งนี้เป็นอย่างดียิ่ง

นางสาวกาญจน์วรินทร์ ผลอนันต์

ผู้วิจัย

E-mail : kaanwarin.po@standrews.ac.th Tel. 081-5669514

สรุปผลการตรวจเครื่องมือที่ใช้ในการวิจัยจากผู้เชี่ยวชาญ
เรื่อง กลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร
ผู้เชี่ยวชาญ คือ 1. รศ.ดร.จรรยาศรี มาดิลกโกวิท 2. ผศ.ดร.สร้อยสน สกลรักษ์ 3.ดร. ศักดา สกนธวัฒน์
ตอนที่ 1 ข้อมูลเกี่ยวกับสถานภาพของผู้ตอบแบบสอบถาม

ข้อ	รายการประเมิน	ผู้เชี่ยวชาญคนที่			IO C	ข้อเสนอแนะ
		1	2	3		
	เพศ () ชาย () หญิง					
	อายุ () ต่ำกว่า 40 ปี () 41-45 ปี () 46-50 ปี () 51-55 ปี () 56 ปีขึ้นไป					
	ระดับการศึกษา () ต่ำกว่าปริญญาตรี () ปริญญาตรี () ปริญญาโท () ปริญญาเอก					
	ตำแหน่งปัจจุบัน () ผู้บริหาร () ครูผู้สอน					
	ระยะเวลาในการดำรงตำแหน่ง () ต่ำกว่า 10 ปี () 11-20 ปี () 21-30 ปี () มากกว่า 30 ปี ขึ้นไป					
	กลุ่มพื้นที่การศึกษาที่โรงเรียนตั้งอยู่ () กลุ่มกรุงเทพเหนือ () กลุ่มกรุงเทพกลาง () กลุ่มกรุงเทพใต้ () กลุ่มกรุงเทพ ตะวันออก () กลุ่มกรุงเทพมหานคร () กลุ่มกรุงเทพใต้					

1. รศ.ดร.จรรยาศรี มาดิลกโกวิท 2. ผศ.ดร.สร้อยสน สกลรักษ์ 3. ดร. ศักดา สกนธวัฒน์

ตอนที่ 2 ความคิดเห็นเกี่ยวกับสภาพปัจจุบันและสภาพที่พึงประสงค์ของกลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร

รายการประเมิน	ผู้เชี่ยวชาญคนที่			IO C	ข้อเสนอแนะ
	1	2	3		
I. ผู้บริหารและครูร่วมกันกำหนดวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียน					
1. ผู้บริหารและครูร่วมกันกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนเพื่อเป็นแนวทางในการสร้างและพัฒนาหลักสูตรสถานศึกษาของโรงเรียนที่สอดคล้องกับมาตรฐานการศึกษา	+1	+1	0	0.66	แก้ไขค่าให้ชัดเจน แนวทาง > ทิศทาง มาตรฐาน การศึกษา > มาตรฐานการ เรียนรู้
2. ผู้บริหารและครูร่วมกันกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนเพื่อเป็นแนวทางในการจัดทำแผนการสอนที่กำหนดวัตถุประสงค์และผลการเรียนรู้ที่คาดหวัง และจัดการเรียนรู้ที่เหมาะสมกับวัยและพัฒนาการในการเรียนรู้ของผู้เรียน	+1	0	+1	0.66	แก้ไขค่าให้ชัดเจน แผนการสอน > แผนจัดการ เรียนรู้
3. ผู้บริหารและครูร่วมกันกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนเพื่อเป็นแนวทางในการพัฒนาการวัดและประเมินผลการเรียนรู้ และนำข้อมูลที่ได้ออกการวิเคราะห์ผลการประเมินไปพัฒนาปรับปรุงผู้เรียน	+1	+1	+1	1.0	แก้ไขค่าให้ชัดเจน แนวทาง > ทิศทาง
4. ผู้บริหารและครูร่วมกันกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนเพื่อเป็นแนวทางในการพัฒนาทักษะและความรู้ในวิชาชีพของครู	+1	+1	+1	1.0	แก้ไขค่าให้ชัดเจน แนวทาง > ทิศทาง
5. การเมืองและนโยบายของรัฐเอื้อต่อการที่ผู้บริหารและครูร่วมกันกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+1	+1	+1	1.0	แก้ไขค่าให้ชัดเจน เอื้อต่อการ > เอื้อให้
6. สภาพเศรษฐกิจเอื้อต่อการที่ผู้บริหารและครูร่วมกันกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+1	+1	+1	1.0	แก้ไขค่าให้ชัดเจน เอื้อต่อการ > เอื้อให้
7. สภาพสังคมเอื้อต่อการที่ผู้บริหารและครูร่วมกันกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+1	+1	+1	1.0	แก้ไขค่าให้ชัดเจน เอื้อต่อการ > เอื้อให้
8. ความก้าวหน้าทางเทคโนโลยีเอื้อต่อการที่ผู้บริหารและครูร่วมกันกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+1	+1	+1	1.0	แก้ไขค่าให้ชัดเจน เอื้อต่อการ > เอื้อให้

1. รศ.ดร.จัญญศรี มาดิลกโกวิท 2. ผศ.ดร.สร้อยสน สกลรักษ์

3. ดร. ศักดา สกนธวัฒน์

รายการประเมิน	ผู้เชี่ยวชาญคนที่			IOC	ข้อเสนอแนะ
	1	2	3		
II. ผู้บริหารสนับสนุนภาวะผู้นำของครู มอบหมายอำนาจและให้มีส่วนร่วมในการตัดสินใจ และดำเนินงาน					
9. ผู้บริหารสนับสนุนภาวะผู้นำของครู มอบหมายอำนาจและให้มีส่วนร่วมในการตัดสินใจในการสร้างและพัฒนาหลักสูตรสถานศึกษาของโรงเรียนที่สอดคล้องกับมาตรฐานการศึกษา	+1	+1	+1	1.0	มอบหมายอำนาจ > มอบอำนาจ
10. ผู้บริหารสนับสนุนภาวะผู้นำของครู มอบหมายอำนาจและให้มีส่วนร่วมในการตัดสินใจในการจัดทำแผนการสอนที่กำหนดวัตถุประสงค์และผลการเรียนรู้ที่คาดหวัง และจัดการเรียนรู้ที่เหมาะสมกับวัยและพัฒนาการในการเรียนรู้ของผู้เรียน	+1	+1	+1	1.0	
11. ผู้บริหารสนับสนุนภาวะผู้นำของครู มอบหมายอำนาจและให้มีส่วนร่วมในการตัดสินใจในด้านการพัฒนาการวัดและประเมินผลการเรียนรู้ และนำข้อมูลที่ได้จากการวิเคราะห์ผลการประเมิน ไปพัฒนาปรับปรุงผู้เรียน	+1	+1	+1	1.0	
12. ผู้บริหารสนับสนุนภาวะผู้นำของครู มอบหมายอำนาจและให้มีส่วนร่วมในการตัดสินใจต่อแนวทางการพัฒนาทักษะและความรู้ในวิชาชีพของครู	+1	+1	+1	1.0	
13. การเมืองและนโยบายของรัฐเอื้อต่อการที่ผู้บริหารสนับสนุนภาวะผู้นำของครู มอบหมายอำนาจและให้มีส่วนร่วมในการตัดสินใจในการดำเนินการเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+1	+1	+1	1.0	
14. สภาพเศรษฐกิจเอื้อต่อการที่ผู้บริหารสนับสนุนภาวะผู้นำของครู มอบหมายอำนาจและให้มีส่วนร่วมในการตัดสินใจในการดำเนินการเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+1	+1	+1	1.0	
15. สภาพสังคมเอื้อต่อการที่ผู้บริหารสนับสนุนภาวะผู้นำของครู มอบหมายอำนาจและให้มีส่วนร่วมในการตัดสินใจในการดำเนินการเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+1	+1	+1	1.0	

1. รศ.ดร.จรรยาศรี มาดิลกโกวิท 2. ผศ.ดร.สร้อยสน สกมลรักษ์ 3. ดร. ศักดา สกนธวัฒน์

รายการประเมิน	ผู้เชี่ยวชาญคนที่			IOC	ข้อเสนอแนะ
	1	2	3		
16. ความก้าวหน้าทางเทคโนโลยีเพื่อการที่ผู้บริหารสนับสนุนภาวะผู้นำของครู มอบหมายอำนาจและให้มีส่วนร่วมในการตัดสินใจในการดำเนินการเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+1	+1	+1	1.0	
ครูมีการสร้างเครือข่ายและเรียนรู้ร่วมกันจากการสนทนา แลกเปลี่ยนความรู้ ความคิดเห็นอย่างต่อเนื่องเกี่ยวกับประเด็นปัญหาการเรียนรู้ของผู้เรียนและนำความรู้ไปใช้					
17. ครูมีการสร้างเครือข่ายและเรียนรู้ร่วมกันจากการสนทนา แลกเปลี่ยนความรู้ ความคิดเห็นอย่างต่อเนื่องเกี่ยวกับประเด็นปัญหาการเรียนรู้ของผู้เรียนและนำความรู้ที่ได้ไปปรับปรุงหลักสูตรสถานศึกษาของโรงเรียนให้เหมาะสมและสอดคล้องกับมาตรฐานการศึกษา	0	+1	+1	0.66	ควรกระชับข้อคำถามให้สั้นและเข้าใจง่ายตัดคำและสอดคล้องกับมาตรฐานการศึกษา > กับผู้เรียน
18. ครูมีการสร้างเครือข่ายและเรียนรู้ร่วมกันจากการสนทนา แลกเปลี่ยนความรู้ ความคิดเห็นอย่างต่อเนื่องเกี่ยวกับประเด็นปัญหาการเรียนรู้ของผู้เรียนและนำความรู้ที่ได้ไปปรับปรุงแผนการสอนที่กำหนดวัตถุประสงค์และผลการเรียนรู้ที่คาดหวังและจัดการเรียนรู้ที่เหมาะสมกับวัยและพัฒนาการในการเรียนรู้ของผู้เรียน	+1	+1	+1	1.0	
19. ครูมีการสร้างเครือข่ายและเรียนรู้ร่วมกันจากการสนทนา แลกเปลี่ยนความรู้ ความคิดเห็นอย่างต่อเนื่องเกี่ยวกับประเด็นปัญหาการเรียนรู้ของผู้เรียนและนำความรู้ที่ได้ไปปรับปรุงการวัดและประเมินผลการเรียนรู้ และนำข้อมูลที่ได้จากการวิเคราะห์ผลการประเมิน ไปพัฒนาปรับปรุงผู้เรียน	+1	+1	+1	1.0	
20. ครูมีการสร้างเครือข่ายและเรียนรู้ร่วมกันจากการสนทนา แลกเปลี่ยนความรู้ ความคิดเห็นอย่างต่อเนื่องเกี่ยวกับประเด็นปัญหาการเรียนรู้ของผู้เรียนและนำความรู้ที่ได้ไปปรับปรุงแนวทางในการพัฒนาทักษะและความรู้ในวิชาชีพของครูให้เหมาะสมต่อการพัฒนาผู้เรียน	+1	+1	+1	1.0	

1. รศ.ดร.จตุฎศรี มาดิลกโกวิท 2. ผศ.ดร.สร้อยสน สกมลรักษ์ 3. ดร. ศักดา สกนธวัฒน์

รายการประเมิน	ผู้เชี่ยวชาญคนที่			IOC	ข้อเสนอแนะ
	1	2	3		
21. การเมืองและนโยบายของรัฐเอื้อต่อการที่ครูสร้างเครือข่ายและเรียนรู้ร่วมกันจากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นอย่างต่อเนืองเกี่ยวกับประเด็นปัญหาการเรียนรู้ของผู้เรียนและนำความรู้ที่ได้ไปใช้ในการดำเนินการเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+ 1	+ 1	+ 1	1.0	ควรกระชับข้อ คำถามให้สั้น และเข้าใจง่าย
22. สภาพเศรษฐกิจเอื้อต่อการที่ครูสร้างเครือข่ายและเรียนรู้ร่วมกันจากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นอย่างต่อเนืองเกี่ยวกับประเด็นปัญหาการเรียนรู้ของผู้เรียนและนำความรู้ที่ได้ไปใช้ในการดำเนินการเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+ 1	+ 1	+ 1	1.0	
23. สภาพสังคมเอื้อต่อการที่ครูสร้างเครือข่ายและเรียนรู้ร่วมกันจากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นอย่างต่อเนืองเกี่ยวกับประเด็นปัญหาการเรียนรู้ของผู้เรียนและนำความรู้ที่ได้ไปใช้ในการดำเนินการเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+ 1	+ 1	+ 1	1.0	
24. ความก้าวหน้าทางเทคโนโลยีเอื้อต่อการที่ครูสร้างเครือข่ายและเรียนรู้ร่วมกันจากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นอย่างต่อเนืองเกี่ยวกับประเด็นปัญหาการเรียนรู้ของผู้เรียนและนำความรู้ที่ได้ไปใช้ในการดำเนินการเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+ 1	+ 1	+ 1	1.0	
IV. ครูทำงานร่วมกันเป็นทีม มีการสังเกตการสอนของเพื่อนครูและนำข้อมูลย้อนกลับจากการสังเกตการสอนไปเป็นแนวทางในการปรับปรุงการจัดการเรียนรู้และผลสัมฤทธิ์ของผู้เรียน					
25. ครูทำงานร่วมกันเป็นทีม มีการสังเกตการสอนของเพื่อนครูและนำข้อมูลย้อนกลับจากการสังเกตการสอนไปปรับปรุงหลักสูตรสถานศึกษาของโรงเรียนให้เหมาะสมต่อการปรับปรุงการจัดการเรียนรู้และผลสัมฤทธิ์ของผู้เรียน	+ 1	+ 1	+ 1	1.0	ควรกระชับข้อ คำถามให้สั้น และเข้าใจง่าย

1. รศ.ดร.จรรยาพร มาดิลกโกวิท 2. ผศ.ดร.สร้อยสน สกลรักษ์ 3. ดร. ศักดา สกนธวัฒน์

รายการประเมิน	ผู้เชี่ยวชาญคนที่			IOC	ข้อเสนอแนะ
	1	2	3		
26. ครูทำงานร่วมกันเป็นทีม มีการสังเกตการสอนของเพื่อนครูและนำข้อมูลย้อนกลับจากการสังเกตการสอนไปปรับปรุงแผนการสอนที่กำหนดวัตถุประสงค์และผลการเรียนรู้ที่คาดหวัง เพื่อให้เหมาะสมต่อการปรับปรุงการจัดการเรียนรู้และผลสัมฤทธิ์ของผู้เรียน	+ 1	+ 1	+ 1	1.0	ควรกระชับข้อคำถามให้สั้นและเข้าใจง่าย
27. ครูทำงานร่วมกันเป็นทีม มีการสังเกตการสอนของเพื่อนครูและนำข้อมูลย้อนกลับจากการสังเกตการสอนไปปรับปรุงการวัดและประเมินผลการเรียนรู้ และนำข้อมูลที่ได้จากการวิเคราะห์ผลการประเมินไปพัฒนาปรับปรุงผลสัมฤทธิ์ของผู้เรียน	+ 1	+ 1	+ 1	1.0	
28. ครูทำงานร่วมกันเป็นทีม มีการสังเกตการสอนของเพื่อนครูและนำข้อมูลย้อนกลับจากการสังเกตการสอนไปปรับปรุงแนวทางในการพัฒนาทักษะและความรู้ในวิชาชีพของครูให้เหมาะสมต่อการปรับปรุงการจัดการเรียนรู้และผลสัมฤทธิ์ของผู้เรียน	+ 1	+ 1	+ 1	1.0	
29. การเมืองและนโยบายของรัฐเอื้อต่อการที่ครูทำงานร่วมกันเป็นทีม มีการสังเกตการสอนของเพื่อนครูและนำข้อมูลย้อนกลับจากการสังเกตการสอนไปเป็นแนวทางในการปรับปรุงการจัดการเรียนรู้และผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+ 1	+ 1	+ 1	1.0	
30. สภาพสังคมเอื้อต่อการที่ครูทำงานร่วมกันเป็นทีม มีการสังเกตการสอนของเพื่อนครูและนำข้อมูลย้อนกลับจากการสังเกตการสอนไปเป็นแนวทางในการปรับปรุงการจัดการเรียนรู้และผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+ 1	+ 1	+ 1	1.0	
31. สภาพเศรษฐกิจเอื้อต่อการที่ครูทำงานร่วมกันเป็นทีม มีการสังเกตการสอนของเพื่อนครูและนำข้อมูลย้อนกลับจากการสังเกตการสอนไปเป็นแนวทางในการปรับปรุงการจัดการเรียนรู้และผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+ 1	+ 1	+ 1	1.0	

1. รศ.ดร.จรรยาพร มาดิลกโกวิท 2. ผศ.ดร.สร้อยสน สกลรักษ์ 3. ดร. ศักดา สกนธวัฒน์

รายการประเมิน	ผู้เชี่ยวชาญคนที่			IOC	ข้อเสนอแนะ
	1	2	3		
32. ความก้าวหน้าทางเทคโนโลยีเพื่อการที่ครูทำงานร่วมกันเป็นทีม มีการสังเกตการสอนของเพื่อนครูและนำข้อมูลย้อนกลับจากการสังเกตการสอนไปเป็นแนวทางในการปรับปรุงการจัดการเรียนรู้และผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	+ 1	+ 1	+ 1	1.0	
V. สภาวะของการสนับสนุนชุมชนแห่งการเรียนรู้ทางวิชาชีพ ได้แก่ การจัดสรรงบประมาณเวลาในการประชุมและดำเนินการ การใช้ฐานระบบข้อมูลเทคโนโลยีสารสนเทศ การมอบหมายอำนาจหน้าที่ ความรับผิดชอบของครูตามทักษะความรู้และความถนัด (Supportive Conditions)					
33. ผู้บริหารจัดสรรงบประมาณ เวลา ระบบเทคโนโลยี ข้อมูลสารสนเทศ และมอบหมายอำนาจหน้าที่ความรับผิดชอบของครูตามทักษะความรู้และความถนัด เพื่อให้ดำเนินงานในการสร้างและพัฒนาหลักสูตรสถานศึกษาของโรงเรียนที่สอดคล้องกับมาตรฐานการศึกษา	+ 1	+ 1	+ 1	1.0	ควรยกระดับข้อคำถามให้สั้นและเข้าใจง่าย
34. ผู้บริหารจัดสรรงบประมาณ เวลา ระบบเทคโนโลยี ข้อมูลสารสนเทศ และมอบหมายอำนาจหน้าที่ความรับผิดชอบของครูตามทักษะความรู้และความถนัด เพื่อให้ดำเนินงานในการจัดทำแผนการสอนที่กำหนดวัตถุประสงค์และผลการเรียนรู้ที่คาดหวัง และจัดการเรียนรู้ที่เหมาะสมกับวัยและพัฒนาการในการเรียนรู้ของผู้เรียน	+ 1	+ 1	+ 1	1.0	
35. ผู้บริหารจัดสรรงบประมาณ เวลา ระบบเทคโนโลยี ข้อมูลสารสนเทศ และมอบหมายอำนาจหน้าที่ความรับผิดชอบของครูตามทักษะความรู้และความถนัด เพื่อให้ดำเนินงานในการพัฒนาการวัดและประเมินผลการเรียนรู้ และนำข้อมูลที่ได้จากการวิเคราะห์ผลการประเมินไปพัฒนาปรับปรุงผู้เรียน	+ 1	+ 1	+ 1	1.0	
36. ผู้บริหารจัดสรรงบประมาณ เวลา ระบบเทคโนโลยี ข้อมูลสารสนเทศ และมอบหมายอำนาจหน้าที่ความรับผิดชอบของครูตามทักษะความรู้และความถนัด เพื่อให้ดำเนินงานในการพัฒนาทักษะและความรู้ในวิชาชีพของครู	+ 1	+ 1	+ 1	1.0	

1. รศ.ดร.จัญญศรี มาดิลกโกวิท 2. ผศ.ดร.สร้อยสน สกลรักษ์ 3. ดร. ศักดา สกนธวัฒน์

รายการประเมิน	ผู้เชี่ยวชาญคนที่			IOC	ข้อเสนอแนะ
	1	2	3		
37. การเมืองและนโยบายของรัฐเอื้อต่อการที่ผู้บริหาร จัดสรรงบประมาณ เวลาในการประชุมและดำเนินการ ระบบ เทคโนโลยีข้อมูลสารสนเทศ และมอบหมายอำนาจหน้าที่ ความรับผิดชอบของครูตามทักษะความรู้และความถนัด เพื่อ พัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของ โรงเรียน	+ 1	+ 1	+ 1	1.0	
38. สภาพเศรษฐกิจเอื้อต่อการที่ผู้บริหารจัดสรร งบประมาณ เวลาในการประชุมและดำเนินการ ระบบ เทคโนโลยีข้อมูลสารสนเทศ และมอบหมายอำนาจหน้าที่ ความรับผิดชอบของครูตามทักษะความรู้และความถนัด เพื่อ พัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของ โรงเรียน	+ 1	+ 1	+ 1	1.0	
39. สภาพสังคมเอื้อต่อการที่ผู้บริหารจัดสรร งบประมาณ เวลาในการประชุมและดำเนินการ ระบบ เทคโนโลยีข้อมูลสารสนเทศ และมอบหมายอำนาจหน้าที่ ความรับผิดชอบของครูตามทักษะความรู้และความถนัด เพื่อ พัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของ โรงเรียน	+ 1	+ 1	+ 1	1.0	
40. ความก้าวหน้าทางเทคโนโลยีเอื้อต่อการที่ ผู้บริหารจัดสรรงบประมาณ เวลาในการประชุมและ ดำเนินการ ระบบเทคโนโลยีข้อมูลสารสนเทศ และ มอบหมายอำนาจหน้าที่ความรับผิดชอบของครูตามทักษะ ความรู้และความถนัด เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทาง วิชาชีพของ โรงเรียน	+ 1	+ 1	+ 1	1.0	

1. รศ.ดร.จรรยาตรี มาดิลกโกวิท 2. ผศ.ดร.สร้อยสน สกลรักษ์ 3. ดร. ศักดา สกนธวัฒน์

ตอนที่ 3 ข้อเสนอแนะเพิ่มเติมเกี่ยวกับกลยุทธ์การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัด กรุงเทพมหานคร

ข้อ	รายการประเมิน	ผู้เชี่ยวชาญคนที่			IOC	ข้อเสนอแนะ
		1	2	3		
1	ท่านคิดว่าโรงเรียนมี จุดแข็ง ในด้านใดที่ควรนำมาใช้ในการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัด กรุงเทพมหานคร	+1	+1	+1	1.0	
2	ท่านคิดว่าโรงเรียนมี จุดอ่อน ในด้านใดต่อการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร	+1	+1	+1	1.0	
3	ท่านคิดว่า ปัจจัยภายนอกเรื่องใดที่เป็นโอกาส ในการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานครและท่านได้ใช้โอกาสนั้นในการบริหารจัดการอย่างไร	+1	0	+1	0.66	เพิ่ม(จนประสบความสำเร็จอย่างไร)
4	ท่านคิดว่าปัจจัยภายนอกเรื่องใดที่เป็นอุปสรรคต่อการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานครและท่านได้จัดการกับอุปสรรคเหล่านั้นอย่างไร	+1	+1	+1	1.0	

1. รศ.ดร.จรรยาศรี มาดิลกโกวิท 2. ผศ.ดร.สร้อยสน สกลรักษ์ 3. ดร. ศักดา สกนธวัฒน์

ผลการวิเคราะห์รายข้อ

องค์ประกอบของสภาพแวดล้อมภายใน

$[(0.182 - 0.087) \div 2 = 0.048]$ สามารถแบ่งได้เป็น 2 กลุ่ม ดังนี้

กลุ่มที่มีค่าดัชนี $PNI_{Modified}$ สูง เท่ากับ 0.182 - 0.134

กลุ่มที่มีค่าดัชนี $PNI_{Modified}$ ต่ำ เท่ากับ 0.087 - 0.133

องค์ประกอบของสภาพแวดล้อมภายนอก

$[(0.216 - 0.152) \div 2 = 0.032]$ สามารถแบ่งได้เป็น 2 กลุ่ม ดังนี้

กลุ่มที่มีค่าดัชนี $PNI_{Modified}$ สูง เท่ากับ 0.216 - 0.184

กลุ่มที่มีค่าดัชนี $PNI_{Modified}$ ต่ำ เท่ากับ 0.152 - 0.183

การจัดลำดับความสำคัญตามความต้องการจำเป็นของการบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร จากการวิเคราะห์สภาพแวดล้อมภายใน รายข้อ

การบริหารเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียนในสังกัดกรุงเทพมหานคร	สภาพปัจจุบัน		สภาพที่พึงประสงค์		ความต้องการจำเป็น		การวิเคราะห์สภาพแวดล้อม
	\bar{X}	S.D.	\bar{X}	S.D.	$PNI_{Modified}$	ผลการจัดกลุ่ม	
1.การกำหนดวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียนร่วมกัน (Shared vision, mission and goals)							
1. ผู้บริหารและครูกำหนดวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียนร่วมกัน	4.31	.71	4.76	.46	0.104	ต่ำ	จุดแข็ง
2. การออกแบบและพัฒนาหลักสูตรของโรงเรียนมีความสอดคล้องกับวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียน	4.27	.71	4.75	.49	0.112	ต่ำ	จุดแข็ง
3. แผนจัดการเรียนรู้กำหนดจุดประสงค์การเรียนรู้ ผลการเรียนรู้ที่คาดหวัง และประสบการณ์	4.11	.75	4.68	.57	0.139	สูง	จุดอ่อน

การเรียนรู้ ที่มีความสอดคล้องกับ วิสัยทัศน์ พันธกิจ และเป้าหมาย ของโรงเรียน							
4. การวัดและประเมินผลการเรียนรู้ ของผู้เรียนมีความสอดคล้องกับ วิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียน	4.10	.71	4.67	.58	0.139	สูง	จุดอ่อน
5.การพัฒนาทักษะและความรู้ใน วิชาชีพของครูมีความสอดคล้องกับ วิสัยทัศน์ พันธกิจ และเป้าหมาย ของโรงเรียน	4.09	.77	4.67	.55	0.142	สูง	จุดอ่อน
6.การเมืองและนโยบายของรัฐเอื้อ ให้ผู้บริหารและครูกำหนดวิสัยทัศน์ พันธกิจและเป้าหมายของโรงเรียน ร่วมกันเพื่อพัฒนาชุมชนแห่งการ เรียนรู้ทางวิชาชีพของโรงเรียน	3.79	.83	4.42	.77	0.166	ต่ำ	โอกาส
7.สภาพเศรษฐกิจเอื้อให้ผู้บริหาร และครูกำหนดวิสัยทัศน์ พันธกิจ และเป้าหมายของโรงเรียนร่วมกัน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ ทางวิชาชีพของโรงเรียน	3.70	.77	4.44	.72	0.200	สูง	ภาวะ คุกคาม
8.สภาพสังคมเอื้อให้ผู้บริหารและ ครูกำหนดวิสัยทัศน์ พันธกิจและ เป้าหมายของโรงเรียนร่วมกันเพื่อ พัฒนาชุมชนแห่งการเรียนรู้ทาง วิชาชีพของโรงเรียน	3.78	.78	4.48	.67	0.185	สูง	ภาวะ คุกคาม
9.ความก้าวหน้าทางเทคโนโลยี เอื้อให้ผู้บริหารและครูกำหนด วิสัยทัศน์ พันธกิจและเป้าหมาย ของโรงเรียนร่วมกันเพื่อพัฒนา	4.00	.80	4.62	.58	0.155	ต่ำ	โอกาส

ชุมชนแห่งการเรียนรู้ทางวิชาชีพ ของโรงเรียน							
2.การมีภาวะผู้นำร่วม และมีส่วน ร่วมในการตัดสินใจ (Shared Leadership)							
10. ครูมีส่วนร่วมในการตัดสินใจ กำหนดมาตรฐานและสาระการ เรียนรู้ ของหลักสูตรของโรงเรียน	4.34	.76	4.72	.54	0.088	ต่ำ	จุดแข็ง
11.ครูมีส่วนร่วมในการตัดสินใจ กำหนดจุดประสงค์การเรียนรู้ ผล การเรียนรู้ที่คาดหวังและ ประสบการณ์การเรียนรู้ที่เหมาะสม กับวัยและพัฒนาการในการเรียนรู้ ของผู้เรียน	4.35	.74	4.73	.53	0.087	ต่ำ	จุดแข็ง
12.ครูมีส่วนร่วมในการตัดสินใจ กำหนดวิธีและพัฒนาเกณฑ์การวัด และประเมินผลการเรียนรู้ที่ สอดคล้องกับมาตรฐานและ จุดประสงค์การเรียนรู้	4.35	.73	4.75	.53	0.092	ต่ำ	จุดแข็ง
13.ครูมีส่วนร่วมในการตัดสินใจต่อ แนวทางการพัฒนาทักษะและ ความรู้ในวิชาชีพ	4.18	.78	4.67	.57	0.117	ต่ำ	จุดแข็ง
14.การเมืองและนโยบายของรัฐเอื้อ ให้ครูมีส่วนร่วมในการตัดสินใจใน การดำเนินงานเพื่อพัฒนาชุมชน แห่งการเรียนรู้ทางวิชาชีพของ โรงเรียน	3.71	.81	4.41	.75	0.189	สูง	ภาวะ คุกคาม
15.สภาพเศรษฐกิจเอื้อให้ครูมีส่วน ร่วมในการตัดสินใจในการ	3.73	.78	4.45	.72	0.193	สูง	ภาวะ คุกคาม

ดำเนินงานเพื่อพัฒนาชุมชนแห่ง การเรียนรู้ทางวิชาชีพของโรงเรียน							
16.สภาพสังคมเอื้อให้ครูมีส่วนร่วม ในการตัดสินใจในการดำเนินงาน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ ทางวิชาชีพของโรงเรียน	3.81	.78	4.47	.69	0.173	ต่ำ	โอกาส
17.ความก้าวหน้าทางเทคโนโลยี เอื้อให้ครูมีส่วนร่วมในการตัดสินใจ ในการดำเนินงานเพื่อพัฒนาชุมชน แห่งการเรียนรู้ทางวิชาชีพของ โรงเรียน	3.95	.81	4.55	.66	0.152	ต่ำ	โอกาส
3.การเรียนรู้ร่วมกันจากการ สนทนาแลกเปลี่ยนความรู้ความ คิดเห็นและนำความรู้ไปใช้ (Collective learning through inquiry and reflective dialogues and application of learning)							
3.1 การเรียนรู้ร่วมกันจากการ สืบเสาะหาความรู้ การสนทนา แลกเปลี่ยนความรู้ความคิดเห็น เกี่ยวกับประเด็นปัญหาการจัดการ เรียนรู้ (Collective learning through inquiry and reflective dialogues)							
18.ครูสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นและเรียนรู้ร่วมกันใน การประชุมเกี่ยวกับปัญหาด้าน มาตรฐานและสาระการเรียนรู้ และ แนวทางในการแก้ไขปรับปรุง	3.92	.78	4.58	.60	0.168	สูง	จุดอ่อน
19.ครูสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นและเรียนรู้ร่วมกันใน	4.03	.76	4.60	.57	0.141	สูง	จุดอ่อน

การประชุมเกี่ยวกับปัญหาด้านกิจกรรม โครงการต่างๆ และประสบการณ์การเรียนรู้ และแนวทางในการแก้ไขปรับปรุง							
20.ครูสนทนาแลกเปลี่ยนความรู้ความคิดเห็นและเรียนรู้ร่วมกันในการประชุมเกี่ยวกับปัญหาด้านผลสัมฤทธิ์ของผู้เรียน และแนวทางในการแก้ไขปรับปรุง	4.02	.78	4.65	.58	0.157	สูง	จุดอ่อน
21.ครูสนทนาแลกเปลี่ยนความรู้ความคิดเห็นและเรียนรู้ร่วมกันในการประชุมเกี่ยวกับปัญหาด้านการพัฒนาทักษะและความรู้ในวิชาชีพของครู และแนวทางในการแก้ไขปรับปรุง	3.91	.81	4.62	.65	0.182	สูง	จุดอ่อน
22.การเมืองและนโยบายของรัฐเอื้อให้ครูมีการสนทนาแลกเปลี่ยนความรู้ความคิดเห็นและเรียนรู้ร่วมกันในการประชุมเกี่ยวกับปัญหาด้านการจัดการเรียนรู้ และแนวทางในการแก้ไขปรับปรุง เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	3.69	.83	4.43	.76	0.201	สูง	ภาวะ คุกคาม
23.สภาพเศรษฐกิจเอื้อให้ครูมีการสนทนาแลกเปลี่ยนความรู้ความคิดเห็นและเรียนรู้ร่วมกันในการประชุมเกี่ยวกับปัญหาด้านการจัดการเรียนรู้ และแนวทางในการแก้ไขปรับปรุง เพื่อพัฒนาชุมชน	3.71	.80	4.43	.71	0.194	สูง	ภาวะ คุกคาม

แห่งการเรียนรู้ทางวิชาชีพของ โรงเรียน							
24.สภาพสังคมเอื้อให้ครูมีการ สนทนาแลกเปลี่ยนความรู้ความ คิดเห็นและเรียนรู้ร่วมกันในการ ประชุมเกี่ยวกับปัญหาด้านการ จัดการเรียนรู้ และแนวทางในการ แก้ไขปรับปรุง เพื่อพัฒนาชุมชน แห่งการเรียนรู้ทางวิชาชีพของ โรงเรียน	3.76	.81	4.48	.70	0.191	สูง	ภาวะ คุกคาม
25.ความก้าวหน้าทางเทคโนโลยี เอื้อให้ครูมีการสนทนาแลกเปลี่ยน ความรู้ความคิดเห็นและเรียนรู้ ร่วมกันในการประชุมเกี่ยวกับ ปัญหาด้านการจัดการเรียนรู้ และ แนวทางในการแก้ไขปรับปรุง เพื่อ พัฒนาชุมชนแห่งการเรียนรู้ทาง วิชาชีพของโรงเรียน	3.87	.81	4.53	.65	0.171	ต่ำ	โอกาส
3.2การนำความรู้ไปใช้ พัฒนาการจัดการเรียนรู้ (Application of Learning)							
26.ครูนำความรู้ที่ได้จากการ สนทนาแลกเปลี่ยนความรู้ ความ คิดเห็น ไปปรับปรุงพัฒนาหลักสูตร ของโรงเรียนให้ครอบคลุมและ เหมาะสมกับการเรียนรู้ของผู้เรียน ยิ่งขึ้น	4.01	.73	4.67	.58	0.165	สูง	จุดอ่อน
27.ครูนำความรู้ที่ได้จากการ สนทนาแลกเปลี่ยนความรู้ ความ คิดเห็น ไปปรับปรุงพัฒนาแผนการ	4.00	.76	4.67	.59	0.168	สูง	จุดอ่อน

จัดการเรียนรู้ให้เหมาะสมกับการเรียนรู้ของผู้เรียนยิ่งขึ้น							
28.ครูนำความรู้ที่ได้จากการการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นไปปรับปรุงพัฒนาวิธีและเกณฑ์การวัดและประเมินผลการเรียนรู้ให้เหมาะสมยิ่งขึ้น	3.98	.74	4.59	.65	0.153	สูง	จุดอ่อน
29.ครูนำความรู้ที่ได้จากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นไปปรับปรุงพัฒนาแนวทางการพัฒนาวิชาชีพของครูให้เหมาะสมยิ่งขึ้น	4.01	.77	4.62	.59	0.152	สูง	จุดอ่อน
30.การเมืองและนโยบายของรัฐเอื้อให้ครูนำความรู้ที่ได้จากการการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็น ไปปรับปรุงพัฒนาการจัดการเรียนรู้ให้เหมาะสมยิ่งขึ้นเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	3.74	.81	4.41	.72	0.179	ต่ำ	โอกาส
31.สภาพเศรษฐกิจเอื้อให้ครูนำความรู้ที่ได้จากการการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็นไปปรับปรุงพัฒนาการจัดการเรียนรู้ให้เหมาะสมยิ่งขึ้นเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	3.70	.78	4.45	.69	0.203	สูง	ภาวะ คุกคาม
32.สภาพสังคมเอื้อให้ครูนำความรู้ที่ได้จากการการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็น	3.74	.81	4.46	.69	0.193	สูง	ภาวะ คุกคาม

ไปปรับปรุงพัฒนาการจัดการเรียนรู้ให้เหมาะสมยิ่งขึ้นเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน							
33.ความก้าวหน้าทางเทคโนโลยีเอื้อให้ครูนำความรู้ที่ได้จากการสนทนาแลกเปลี่ยนความรู้ ความคิดเห็น ไปปรับปรุงพัฒนาการจัดการเรียนรู้ให้เหมาะสมยิ่งขึ้นเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	3.89	.79	4.54	.67	0.167	ต่ำ	โอกาส
4. การทำงานร่วมกันเป็นทีม การสอนงานให้คำแนะนำ สังเกตการสอนในชั้นเรียนและให้ข้อมูลย้อนกลับเพื่อนำไปเป็นแนวทางในการปรับปรุงการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน							
4.1ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำ							
34.ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำ ในด้านการพัฒนาหลักสูตรสถานศึกษาของโรงเรียนให้เหมาะสมต่อการจัดการเรียนรู้ และยกระดับผลสัมฤทธิ์ของผู้เรียน	4.11	.80	4.74	.53	0.153	สูง	จุดอ่อน
35.ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำในด้านการพัฒนาแผนจัดการเรียนรู้ให้เหมาะสมต่อการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน	4.08	.78	4.72	.54	0.157	สูง	จุดอ่อน

36.ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำ ในด้านการพัฒนาวิธีและเกณฑ์การวัดและประเมินผลการเรียนรู้ให้เหมาะสมต่อการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน	4.04	.79	4.74	.49	0.173	สูง	จุดอ่อน
37.ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำ ในด้านการพัฒนาแนวทางการพัฒนาทักษะและความรู้ในวิชาชีพของครูให้เหมาะสมต่อการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน	4.02	.79	4.70	.54	0.169	สูง	จุดอ่อน
38.การเมืองและนโยบายของรัฐเอื้อให้ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	3.69	.83	4.46	.73	0.209	สูง	ภาวะ คุกคาม
39.สภาพเศรษฐกิจเอื้อให้ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	3.70	.84	4.48	.68	0.211	สูง	ภาวะ คุกคาม
40.สภาพสังคมเอื้อให้ครูทำงานร่วมกันเป็นทีม มีการสอนงานให้คำแนะนำการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	3.74	.80	4.50	.66	0.203	สูง	ภาวะ คุกคาม

<p>41.ความก้าวหน้าทางเทคโนโลยี ให้อี้อให้ครูทำงานร่วมกันเป็นทีม มี การสอนงานให้คำแนะนำการ จัดการเรียนรู้และยกระดับ ผลสัมฤทธิ์ของผู้เรียนเพื่อพัฒนา ชุมชนแห่งการเรียนรู้ทางวิชาชีพ ของโรงเรียน</p>	3.90	.81	4.61	.61	0.182	ต่ำ	โอกาส
<p>4.3 มีการสังเกตการสอนในชั้น เรียนของเพื่อนครูและให้ ข้อมูลย้อนกลับเพื่อนำไป กำหนดแนวทางในการ ปรับปรุงการจัดการเรียนรู้ และและยกระดับผลสัมฤทธิ์ ของผู้เรียน (Making peer's observation and giving feedback to improve student achievement)</p>							
<p>42. มีการสังเกตการสอนในชั้นเรียน ของเพื่อนครูและให้ข้อมูลย้อนกลับ</p>	4.12	.80	4.68	.56	0.136	สูง	จุดอ่อน
<p>43.ครูนำข้อมูลย้อนกลับไปกำหนด แนวทางในการปรับปรุงพัฒนา หลักสูตรของโรงเรียนให้เหมาะสม ต่อการจัดการเรียนรู้และยกระดับ ผลสัมฤทธิ์ของผู้เรียน</p>	3.99	.79	4.65	.60	0.165	สูง	จุดอ่อน
<p>44.ครูนำข้อมูลย้อนกลับไปกำหนด แนวทางในการปรับปรุงพัฒนาแผน จัดการเรียนรู้ให้เหมาะสมต่อการ จัดการเรียนรู้และยกระดับ ผลสัมฤทธิ์ของผู้เรียน</p>	4.00	.79	4.65	.58	0.163	สูง	จุดอ่อน

45.ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาวิธีและเกณฑ์การวัดและประเมินผล การเรียนรู้ ให้เหมาะสมต่อการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน	3.98	.77	4.66	.55	0.171	สูง	จุดอ่อน
46.ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาทักษะและความรู้ในวิชาชีพของครู ให้เหมาะสมต่อการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน	4.00	.79	4.66	.56	0.165	สูง	จุดอ่อน
47.การเมืองและนโยบายของรัฐเอื้อให้ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียนเพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	3.70	.82	4.47	.69	0.208	สูง	ภาวะ คุกคาม
48.สภาพเศรษฐกิจเอื้อให้ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	3.70	.81	4.50	.67	0.216	สูง	ภาวะ คุกคาม
49.สภาพสังคมเอื้อให้ครูนำข้อมูลย้อนกลับไปกำหนดแนวทางในการปรับปรุงพัฒนาการจัดการเรียนรู้และยกระดับผลสัมฤทธิ์ของผู้เรียน เพื่อพัฒนาชุมชนแห่งการเรียนรู้ทางวิชาชีพของโรงเรียน	3.77	.78	4.50	.67	0.194	สูง	ภาวะ คุกคาม

50.ความก้าวหน้าทางเทคโนโลยี เอื้อให้ครูนำข้อมูลย้อนกลับไป กำหนดแนวทางในการปรับปรุง พัฒนาการจัดการเรียนรู้และ ยกระดับผลสัมฤทธิ์ของผู้เรียน เพื่อ พัฒนาชุมชนแห่งการเรียนรู้ทาง วิชาชีพของโรงเรียน	3.86	.81	4.57	.63	0.184	สูง	ภาวะ คุกคาม
5.สภาพของการสนับสนุนชุมชน แห่งการเรียนรู้ทางวิชาชีพ							
5.3 การสนับสนุนเชิงโครงสร้าง ได้แก่การจัดสรรเวลาในการ ประชุมและดำเนินการ จัดระบบสนับสนุนต่างๆ เช่น การสื่อสาร ฐานระบบข้อมูล เทคโนโลยีสารสนเทศ และ มอบอำนาจให้ครู							
51.ผู้บริหารจัดสรรเวลาและระบบ สนับสนุนในการประชุมและ ดำเนินการ และมอบอำนาจให้ครู ดำเนินงานในการออกแบบและ พัฒนาหลักสูตรของโรงเรียน	4.20	.77	4.68	.58	0.114	ต่ำ	จุดแข็ง
52.ผู้บริหารจัดสรรเวลาและระบบ สนับสนุนในการประชุมและ ดำเนินการ และมอบอำนาจให้ครู ดำเนินงานในการจัดทำแผน จัดการเรียนรู้ และจัดประสบการณ์ การเรียนรู้ที่เหมาะสมกับการเรียนรู้ ของผู้เรียน	4.24	.75	4.69	.54	0.106	ต่ำ	จุดแข็ง
53.ผู้บริหารจัดสรรเวลาและระบบ สนับสนุนในการประชุมและ	4.23	.74	4.70	.56	0.111	ต่ำ	จุดแข็ง

ดำเนินการ และมอบอำนาจให้ครู ดำเนินงานในการพัฒนาวิธีและ เกณฑ์การวัดและประเมินผลการ เรียนรู้ และนำข้อมูลจากการ วิเคราะห์ผลการประเมินไปพัฒนา ปรับปรุงผู้เรียน							
54.ผู้บริหารจัดสรรเวลาและระบบ สนับสนุนในการประชุมและ ดำเนินการ และมอบอำนาจให้ครู ดำเนินงานในการพัฒนาทักษะและ ความรู้ในวิชาชีพของครู	4.20	.76	4.70	.55	0.119	ต่ำ	จุดแข็ง
55.การเมืองและนโยบายของรัฐเอื้อ ให้ผู้บริหารจัดสรรเวลาและระบบ สนับสนุนในการประชุมและ ดำเนินการ และมอบอำนาจให้ครู ดำเนินงาน เพื่อพัฒนาชุมชนแห่ง การเรียนรู้ทางวิชาชีพของโรงเรียน	3.79	.79	4.44	.72	0.172	ต่ำ	โอกาส
56.สภาพเศรษฐกิจเอื้อให้ผู้บริหาร จัดสรรเวลาและระบบสนับสนุนใน การประชุมและดำเนินการ และ มอบอำนาจให้ครูดำเนินงาน เพื่อ พัฒนาชุมชนแห่งการเรียนรู้ทาง วิชาชีพของโรงเรียน	3.78	.77	4.47	.67	0.183	ต่ำ	โอกาส
57.สภาพสังคมเอื้อให้ผู้บริหาร จัดสรรเวลาและระบบสนับสนุนใน การประชุมและดำเนินการ และ มอบอำนาจให้ครูดำเนินงาน เพื่อ พัฒนาชุมชนแห่งการเรียนรู้ทาง วิชาชีพของโรงเรียน	3.80	.77	4.48	.67	0.179	ต่ำ	โอกาส

<p>58.ความก้าวหน้าทางเทคโนโลยี ให้อำนาจผู้บริหารจัดสรรเวลาและ ระบบสนับสนุนในการประชุมและ ดำเนินการ และมอบอำนาจให้ครู ดำเนินงาน เพื่อพัฒนาชุมชนแห่ง การเรียนรู้ทางวิชาชีพของโรงเรียน</p>	3.91	.80	4.52	.65	0.156	ต่ำ	โอกาส
<p>5.4 การสนับสนุนเชิงศักยภาพ ของคน ได้แก่ การมีทักษะ ความรู้ในวิชาชีพ ทักษะ เชิงบวกในการรับฟัง ใ่วางใจและเต็มใจที่จะ ปรับปรุงและพัฒนา</p>							
<p>59.ครูมีทักษะความรู้ในวิชาชีพ ทักษะเชิงบวกในการรับฟัง ใ่วางใจและเต็มใจที่จะปรับปรุง และพัฒนาหลักสูตรของโรงเรียน</p>	4.06	.75	4.71	.55	0.160	สูง	จุดอ่อน
<p>60.ครูมีทักษะความรู้ในวิชาชีพ ทักษะเชิงบวกในการรับฟัง ใ่วางใจและเต็มใจที่จะปรับปรุง และพัฒนาแผนจัดการเรียนรู้ และ จัดการเรียนรู้ที่เหมาะสมกับวัยและ พัฒนาการในการเรียนรู้ของผู้เรียน</p>	4.09	.74	4.71	.55	0.152	สูง	จุดอ่อน
<p>61.ครูมีทักษะความรู้ในวิชาชีพ ทักษะเชิงบวกในการรับฟัง ใ่วางใจและเต็มใจที่จะปรับปรุง และพัฒนาวิธีและเกณฑ์วัดและ ประเมินผลการเรียนรู้ และนำ ข้อมูลจากการวิเคราะห์ผลการ ประเมินไปพัฒนาปรับปรุงผู้เรียน</p>	4.08	.73	4.70	.54	0.152	สูง	จุดอ่อน

62.ครูมีทักษะความรู้ในวิชาชีพ ทัศนคติเชิงบวกในการรับฟัง ไว้วางใจและเต็มใจที่จะปรับปรุง และพัฒนาทักษะและความรู้ใน วิชาชีพของครู	4.10	.73	4.69	.55	0.144	สูง	จุดอ่อน
63.การเมืองและนโยบายของรัฐเอื้อ ให้ครูมีทักษะความรู้ในวิชาชีพ ทัศนคติเชิงบวกในการรับฟัง ไว้วางใจและเต็มใจที่จะปรับปรุง และพัฒนา เพื่อพัฒนาชุมชนแห่ง การเรียนรู้ทางวิชาชีพของโรงเรียน	3.78	.78	4.54	.65	0.201	สูง	ภาวะ คุกคาม
64.สภาพเศรษฐกิจเอื้อให้ครูมี ทักษะความรู้ในวิชาชีพ ทัศนคติเชิง บวกในการรับฟัง ไว้วางใจและเต็ม ใจที่จะปรับปรุงและพัฒนาเพื่อ พัฒนาชุมชนแห่งการเรียนรู้ทาง วิชาชีพของโรงเรียน	3.77	.79	4.53	.68	0.202	สูง	ภาวะ คุกคาม
65.สภาพสังคมเอื้อให้ครูมีทักษะ ความรู้ในวิชาชีพ ทัศนคติเชิงบวก ในการรับฟัง ไว้วางใจและเต็มใจที่ จะปรับปรุงและพัฒนา เพื่อพัฒนา ชุมชนแห่งการเรียนรู้ทางวิชาชีพ ของโรงเรียน	3.82	.75	4.55	.66	0.191	สูง	ภาวะ คุกคาม
66.ความก้าวหน้าทางเทคโนโลยี เอื้อให้ครูมีทักษะความรู้ในวิชาชีพ ทัศนคติเชิงบวกในการรับฟัง ไว้วางใจและเต็มใจที่จะปรับปรุง และพัฒนา เพื่อพัฒนาชุมชนแห่ง การเรียนรู้ทางวิชาชีพของโรงเรียน	3.92	.74	4.60	.62	0.173	ต่ำ	โอกาส



Ms. Kaanwarin Polanunt

Education

- Ph.D. Candidate , Educational Leadership and Policy, Educational Administration, Chulalongkorn University, 2015
- M.Ed., Educational Administration, Chulalongkorn University, 2007
- M.A., English as a Second Language, University of North Texas, Texas, USA, 1988
- Multiple Subject Teaching Credential Grade K-5 with ESL Authorization Grade K-9, California State University Dominguez Hill, California, USA
- Cross Cultural Language Academic Development Certificate of California, USA
- B.A. , English, Chulalongkorn University, 1982
- Leadership, Action Learning, and Professional Learning Communities, World Institute for Action Learning, George Washington University, Washington, DC., USA, 2011
- School Quality Supervision and Management Certificate, UNESCO International Institute for Educational Planning, Paris, France 2007
- Leadership and Communication Skills Certificate, Educational Development, Cambridge, UK 2006
- South Basin Writing Project Certificate, California, USA 1997
- California Literature Project Certificate, California, USA 1990
- TEACH FOR AMERICA, California, USA 1989

Teaching Experiences

2014-Present	School Director, St Andrews International School Bangkok
2005-2014	Thai Headmistress-Director, Bangkok Patana School
2003-2005	Primary Thai Studies Coordinator, Bangkok Patana School
2002-2005	Primary Thai Teacher, Bangkok Patana School
1990-2002	Elementary Class Teacher, Literacy Coach, Gifted and Talented Program Lead Teacher at Martin L. King Elementary School, Compton, California, USA
1988-1990	ESL Teacher at Chinese American Civic Association (full time), Boston Community College (part-time), International Institute of Boston (part-time), Boston, Massachusetts, USA
1983-1985	Case Worker, the Orderly Departure Program of the Joint Voluntary Agency of the United Nation and the US Embassy, Bangkok, Thailand
1982-1983	ESL Teacher for the Consortium of Save the Children, World Education and International Living, Panatnikom, Thailand

Other Related Work Experiences

2005-Present	Thai Professional Development and Thai Curriculum Committee Member of International School Association of Thailand (ISAT)
--------------	---

2008-2014	Chair of Professional Development and Thai Curriculum Committee of ISAT Accreditation Committee Member of ISAT for the Office of National Educational Standards Quality Assurance: Serve as a visiting committee member/school inspector
2008-2013	Trainer of the Thai Language, Culture and Professional Ethics Course for Expatriate Teachers and Thai instructors
2008	Develop standards and benchmarks for Thai Language and Culture courses for International students
2007-2008	Develop Curriculum Overview of the Thai Language, Culture and Professional Ethics Course for Expatriate Teachers



VITA

Ms. Kaanwarin Polanunt

Education

- Ph.D.candidate, Educational Leadership and Policy, Educational Administration, Chulalongkorn University, 2015
- M.Ed., Educational Administration, Chulalongkorn University, 2007
- M.A., English as a Second Language, University of North Texas, Texas, USA, 1988
- Multiple Subject Teaching Credential Grade K-5 with ESL Authorization Grade K-9, California State University Dominguez Hill, California, USA
- Cross Cultural Language Academic Development Certificate of California, USA
- B.A. , English, Chulalongkorn University, 1982
- Leadership, Action Learning, and Professional Learning Communities, World Institute for Action Learning, George Washington University, Washington, DC., USA, 2011
- School Quality Supervision and Management Certificate, UNESCO International Institute for Educational Planning, Paris, France 2007
- Leadership and Communication Skills Certificate, Educational Development, Cambridge, UK 2006
- South Basin Writing Project Certificate, California, USA 1997
- California Literature Project Certificate, California, USA 1990
- TEACH FOR AMERICA, California, USA 1989

Work Experiences

- | | |
|--------------|--|
| 2014-Present | School Director, St Andrews International School Bangkok |
| 2005-2014 | Thai Headmistress-Director, Bangkok Patana School |
| 2002-2005 | Primary Thai Studies Coordinator, Bangkok Patana School |
| 1990-2002 | Elementary Class Teacher, Literacy Coach, Gifted and Talented Program Lead Teacher at Martin L. King Elementary School, Compton, California, USA |
| 1988-1990 | ESL Teacher at Chinese American Civic Association (full time), Boston Community College (part-time), International Institute of Boston (part-time), Boston, Massachusetts, USA |

Other Related Work Experiences

- Develop and train the Thai Language, Culture and Professional Ethics Course for Expatriate and Thai Teachers of International Schools
- Inspect international schools for quality assurance, representing the Office of National Educational Standards Quality Assurance and the Office of Private Education Commission
- Develop the curriculum and provide the training of the Thai language and culture instruction to Thai teachers of international schools