MANAGEMENT STRATEGIES FOR CREATING PROFESSIONAL LEARNING COMMUNITIES OF SCHOOLS UNDER THE BANGKOK METROPOLITAN ADMINISTRAYION

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The objectives of this research were (1to study the current and desirable state of the management for creating professional learning communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA) 2) to analyze strengths, weaknesses, opportunities and threats of the management for creating PLCs of schools under the BMA and 3 (to develop management strategies for creating PLCs of schools under the BMA. The study was mixed method research. The samples were 209 schools under the BMA. The instruments used in this study were the questionnaire and the strategic evaluation form of feasibility and appropriateness. The data were analyzed by frequency, percentage, average, standard deviation, PNI_{Modified} and content analysis. The results showed the following: 1) the current state of the management to create the PLCs of schools under the BMA was overall at a high level ($\bar{X} = 4.10$). When considering each attribute, shared leadership and shared decision-making were the highest average (\bar{X} = 4.31). The desired state of the management to create the PLCs of schools under the BMA was at the highest level overall (\bar{X} =4.69). When considering each attribute, shared leadership and shared decision-making were the highest average (\bar{X} = 4.72). 2) The strengths were the shared leadership and shared decision-making and the shared vision, mission and goals; the weaknesses were collaboration and shared practice, the collective learning through inquiry, reflective dialogues and application of learning and the supportive conditions respectively. The technology was considered as the opportunity and the economic, the political and the social aspects were considered as the threats. 3) Five management strategies were developed including (i) To promote collaborative culture and shared practice; (ii)

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To promote collective learning and application of learning; (iii) To develop teachers' capacities and to increase the effectiveness of the structural support; (iv) To raise the quality of shared vision, mission and goals; and (v) To increase the effectiveness of shared leadership and shared decision-making.

Keywords: Professional Learning Communities, Management Strategies, Bangkok Metropolitan Administration.

Background and Significance of Study

In many international research studies, the Professional Learning schools around the world have been applying the PLCs approach as a basis for change and school improvement for decades.

A Professional Learning Community is a place where administrators and teachers develop collegial relationships, share a vision, make essential questions and make decisions together, 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 (Hord, 1994, 2004), 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 (Michael Fullan, 2006), the educators' continuous process of collaborative, ongoing work in questioning and conducting action research in order to help students to achieve improving achievement results (Dufour et al, 2006, 2010).

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 PLCs address four key areas including (1) it builds productive relationships amongst staff who are expected to collaborate, reflect, and act in order to carry out a school-improvement programme. (2) it engages educators at all levels in collective learning. (3) it addresses inequities by providing assistance to teachers working with students who need learning support and (4) it promotes efforts to improve results. 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 (Cited by Gerhard, 2010). The Literacy and Numeracy Secretariat [Capacity Building (2007)] advocated that PLCs 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.

Attributes of Professional Learning Communities

Based on the study of various types of literature review, the attributes of the PLCs are synthesized to include the following five attributes: (1) Shared vision, mission

and goals which refer to a mental picture, a direction towards the future goals of the organization and address what the organization wishes to become or to achieve. (2) Shared leadership and shared decision-making 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. (3) Collective learning through continuous inquiry, reflective dialogues and application of learning which 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. (4) Collaboration and shared practice focusing on improving student achievement which refer 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 and (5) Supportive conditions which refer to the 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.

This research conducts the study of Professional Learning Communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA). The BMA provides basic education from Kindergarten to Grade 12 to over 300,000 pupils who reside in Bangkok Metropolitan areas. There are 438 schools located in 50 school districts. 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.

Since the practice of Professional Learning Communities (PLCs) has been viewed by several research studies as a necessary tool for school reform and raising the standard of teachers, this research would conduct a survey of the current state and the desired state of management to create PLCs of schools under the BMA; the information received would then be analyzed 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 emphasizes a child-centered approach and school-based management.

Objectives

There are three objectives:

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

Conceptual Framework

According to the studies and relevant literature reviews on the management strategies for creating Professional Learning Communities of schools under the Bangkok Metropolitan Administration, the researcher synthesizes the conceptual framework as follows:

(See Figure 1 on the next page)

Literature Review

In studying the management strategies to enhance teacher empowerment in elementary schools, the researchers studied and reviewed the following relevant documents:

- 1. Professional Learning Communities.
- 2. Management of Schools under the Bangkok Metropolitan Administration.
- 3. School Management.
- 4. Strategic Management
- 5. Related Literature Studies on Professional Learning Communities (See Figure 2 on the next page)

Findings

- 1. The current state and desired state of the management to create the professional learning of schools under the Bangkok Metropolitan Administration
- 1.1) Based on the analysis of the internal environment, 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 (\overline{x} = 4.10, S.D. = .58). When considering each aspect, the shared leadership and shared decision-making has the highest mean value (\overline{x} = 4.31, S.D. = .67), then the shared vision, mission and goals (\overline{x} = 4.18, S.D. = .62), the supportive conditions (\overline{x} = 4.15, S.D. = .64), the collaboration, shared practice (\overline{x} = 4.04, S.D. = .67) and the collective learning through inquiries, reflective dialogues and application of learning (\overline{x} = 3.99, S.D. = .65), respectively.

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 (\overline{x} = 3.79, S.D = .63). When considering each aspect, the technological factor has a highest mean value (\overline{x} = 3.91, S.D = .66), then the sociocultural aspect (\overline{x} = 3.78, S.D. = .64), the political and government policy (\overline{x} = 3.74, S.D. = .66) and the economic aspect (\overline{x} = 3.72, S.D. = .65) respectively.

Management of Schools under the Bangkok Metropolitan Administration

The management process of planning, implementing and evaluation (PIE) is applied to curriculum management in the following tasks:

- Curriculum design and development.
- 2. Planning instruction and designing learning experiences for students.
- 3. Student assessment and data analysis for improving student achievement.
- 4. Professional development.

Creating Professional Learning Communities

The concept of PLC attributes described by international and local research are synthesized to include the following attributes:

- 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.

Development of Management Strategies of Schools under the Bangkok Metropolitan Administration

The three concepts, including strategic management (Wheelen and Hunger, 2012), the strategic formulation (Koontz and Weihrich, 1990) and the application of PNIModified (Nonglak Wiratchai and Suvimol Wongwanich, 1999) are synthesized and summarized into the following three steps:

- 1. Conducting SWOT analysis using PNIModified.
- 2. Developing management strategies using TOWS Matrix Analysis.
- 3. Adjusting management strategies as suggested by specialists and stakeholders.

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

Figure 1: Conceptual Framework of The Study

Research Steps

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

Research Methodology

1. The sample population employed in the study are 209 schools under the Bangkok Metropolitan Administration 2. The informants include 1) school administrators 2) teachers 3. The research tool used in the study is a questionnaire to find the current and desired states of the school management.

- 4. The methods used to gain the quality of the research tool are the IOC validity and the Cronbach's alpha coefficient of reliability.
- 5. The data analysis uses a statistical tool, SPSS, to identify frequency distribution, percentage, means and standard deviation (S.D.)

Desired Outcomes

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

.2To conduct the SWOT analysis of management to create professional learning communities of schools under the Bangkok Metropolitan Administration 1. The statistical data received from step 1 is used for the internal and external environment analysis to identify strengths (S), weaknesses(W), opportunities(O) and threats(T) 2. The PNI_{Modified} analysis is conducted to priorities needs by arranging PNI_{Modified} scores of strengths (S), weaknesses (W), opportunities (O) and threats (T) in rank order from the highest to the lowest.

The PNI_{Modified} scores of Strengths, Weaknesses, Opportunities and Threats of Management to Create professional learning communities of Schools under the Bangkok Metropolitan Administration are arranged in rank order from highest to lowest.

.3 To develop management strategies to create Professional Learning communities of Schools under the Bangkok Metropolitan Administration by 3.1) producing a first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan

1. A TOWS Matrix chart is created.
2. A TOWS analysis is conducted using a TOWS Matrix chart, the PNI_{Modified} scores of strengths, weaknesses, opportunities and threats arranged in rank order from the highest to the lowest are put in the TOWS Matrix chart with pairs up of W- O, W- T, S- T and S-O
3. A draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration consisting of main strategies, minor strategies and procedure is produced.

The first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is produced.

3.2) having the experts and stakeholders individually examine the suitability and the feasibility of the first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration; and

then revising the strategies as suggested by the experts and stakeholders.

Administration

1. An evaluation form of management strategies is drafted, examined on its content validity and revised.

- 2. Approximately 20 experts and stakeholders individually examine the suitability and feasibility of the first draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration.
- 3. The management strategies are revised as recommended by the experts and stakeholders.

The second draft of suitable and practical management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration is produced.

3.3) having a focus group examine the suitability and feasibility of the second draft of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration and having the management strategies revised and presented

1. A focus group discussion consisting of approximately 12 experts and stakeholders is organized, the focus group examines the suitability and feasibility of the second draft of management strategies

2. To adjust management strategies as

recommended by the experts, stakeholders and the advisor
3. To present a final version of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration

Final version of management strategies to create professional learning communities of schools under the Bangkok Metropolitan Administration

Figure 2: Research Methodology

1.2) 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 (\overline{x} = 4.69, S.D = .42). When considering each aspect, the shared leadership and shared decision-making has the highest mean value (\overline{x} = 4.72, S.D = .47), then the shared vision, mission and goals (\overline{x} = 4.71, S.D = .44), the supportive conditions (\overline{x} = 4.70, S.D = .46), the collaboration and shared practice focusing on improving student achievement (\overline{x} = 4.69, S.D = .45) and the collective learning through inquiries, reflective dialogues and application of learning (\overline{x} = 4.62, S.D = .51) 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 (\overline{x} = 4.49, S.D. = .54). When considering each aspect, the technological factor has a highest mean value (\overline{x} =

- 4.57, S.D. = .52), then the socio-cultural aspect (\overline{x} = 4.49, S.D = .56), the economic aspect (\overline{x} = 4.47, S.D. = .57) and the political and government policy (\overline{x} = 4.45, S.D. = .59) respectively.
- 2. Strengths, weaknesses, opportunities, and threats to the management to create to Professional Learning Communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA).
- 2.1 The strengths of the management to create to PLCs of schools under the BMA are the shared vision, mission and goals obtaining the PNIModified, 0.127, and the shared leadership and shared decision-making obtaining the PNI_{Modified}= 0.095.
- 2.2 The weaknesses of the management to create to PLCs of schools under the BMA are 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.
- 2.3 The opportunity of the management to create to PLCs of schools under the BMA is the technological aspect obtaining the PNIModified, 0.169.
- 2.4 The threats to the management to create to PLCs of schools under the BMA are the economic aspect has the highest $PNI_{Modified}$, 0.202, then the politics and government policy aspect obtaining the $PNI_{Modified}$, 0.190 and the socio-cultural aspect obtaining the $PNI_{Modified}$, 0.188, respectively
- 3. Management Strategies for creating professional learning communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA)

The researchers developed 5 management strategies and 16 sub-strategies as follows:

Table 1: Management Strategies for Creating Professional Learning Communities of Schools under The Bangkok Metropolitan Administration

Communicies of Schools under The Bunghon Wiell oponium Mammistration						
Strategy 1	Strategy 2	Strategy 3	Strategy 4	Strategy 5		
To promote	To promote the	To develop the	To raise the	To increase the		
collaborative	collective learning	people's	quality of shared	teachers' shared		
culture and	through inquiries,	capacities and	vision, mission	leadership		
shared practice	reflective	increase the	and goals	capacity and		
through	dialogues and	effectiveness of		shared decision-		
coaching	application of	the structural		making		
practices and	learning.	support.				
peer observation.						
Sub-strategies	Sub-strategies	Sub-strategies	Sub-strategies	Sub-strategies		

Table 1: Management Strategies for Creating Professional Learning Communities of Schools under The Bangkok Metropolitan Administration

Communities of	Schools under T	he Bangkok Metr	opolitan Admin	istration
1.1: Mentor	2.1: Teachers	3.1: Teachers	4.1: School	5.1: Teachers'
teachers coach	collectively learn	increase their	administrators	shared
and support	through inquiries	capacities in	support the	leadership
mentees in	and reflective	developing the	alignment of the	capacity and
developing the	dialogues about	school curriculum	teachers'	decision in
student	the participatory	of the 21st	continuing	developing the
assessment	approaches to the	century.	professional	teacher
methods and	teacher		development	professional
criteria.	professional		and the shared	development to
	development.		vision, mission	focus on the
			and goals.	student
				achievement are
10.35	0.0 TF 1	0.0 TF 1	40011	promoted.
1.2: Mentor	2.2: Teachers	3.2: Teachers	4.2: School	5.2: Teachers'
teachers coach	collectively learn	increase their	administrators	shared
and support	through inquiries	capacities in	support the	leadership
mentees on their		developing the	alignment of the	capacity and
professional	dialogues about	students'	student	decision in
development that	school curriculum.	assessment	assessment and evaluation and	developing the student
achievement.	school culticulum.	criteria to be	the shared	assessment and
acmevement.		aligned with the	vision, mission	evaluation are
		21st school	and goals.	promoted.
		curriculum.	and gouis.	promoted.
1.3: Teachers	2.3: Teachers	3.3: The school		
observe	apply their	administrators		
colleagues'	learning to	increase the		
teaching	improve their	effectiveness of		
practices and	instruction and	the structural		
•	students' learning	support required		
feedback to	experiences.	for the promotion		
improve the		of the teacher		
student		professional		
assessment and		development.		
evaluation.				
1.4: Teachers	2.4: Teachers	3.4: The school		
observe	apply their	administrators		
colleagues'	learning to	increase the		
teaching	improve the	effectiveness of		
practices and	school curriculum.			
give constructive		support required		
feedback to		for the		
improve the		development of		
instruction and		the school curriculum of the		
students'				
learning		21st century.		
experiences.				

Results Discussion

1. Attributes of professional learning communities

Based on the research study, the synthesized attributes of the PLCs are necessary for the schools to develop in order to create PLCs and used in a conceptual framework 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

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. 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.

2. The current state and the desired state the management to create to Professional Learning Communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA).

2.1 Analysis of the internal environment

Based on the analysis of the current state of the internal environment, the research findings reveal that 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.

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 decentralized power and the teacher authority. The concept of this aspect is supported by Kinlaw's concept (1995) on people's empowerment. He emphasizes 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 organization, their love and commitment to the organization will increase, they would also feel valued, have good understanding towards the surrounding environment and be able to successfully solve problems. Vicki Vescio, Dorene Ross, Alysin 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. (Cited by V. Vescio et al., 2008:85-86).

2.2 Analysis of the External Environment

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.

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 customize the students' learning experiences to become suitable for the students' individual needs particularly those students who expect to have technology-driven learning experiences.

- 3. Strengths, weaknesses, opportunities, and threats to the management to create to Professional Learning Communities (PLCs) of schools under the Bangkok Metropolitan Administration (BMA)
- 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.

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 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, 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).

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 organizational change and leaders should involve the people in the organization 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).

The concept of the structural support is supported 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).

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.

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. 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.

Mentoring can be challenging for the veteran teachers when the mentor teachers have not acquired sufficient training and support to perform their roles and responsibilities as it requires them to invest a lot of time and energies to perform this role. (James B. Rowley 1999, p. 20-22: online). 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.

With regards to the other weakness, 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 organization 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 organization to increase knowledge and capacities and to produce good outcomes for the organization. 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).

- 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).
- 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.

- 4. Management Strategies for Creating Professional Learning Communities (PLCs) of Schools under the Bangkok Metropolitan Administration (BMA)
- 4.1) Based on the research findings, the collaboration and shared practice focusing on improving student achievement are the greatest weakness. 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. Richard Dufour (2003) states that leaders determine to impact student achievement must not settle for congeniality, coordination, delegating responsibilities of any form of collaboration lite but they must work together to impact professional practice to improve individual and collective results (cited in Professional Learning Communities: An Exploration. Annotated Bibilography/51, 2006). A mentoring programme, a critical friend programme and peer observation are found to strengthen the education. 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)
- 4.2) 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 strategies focusing on promoting collective learning through inquiries and reflective dialogues should be implemented as they 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 application of learning must also be practiced 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.

4.3) The research findings indicate that supportive conditions appear to be the weakness in the third place. The school management should continue to provide the structural support including time for meetings and technology. 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. School library media specialists should consider

media and media literacy resources both for student and professional collections". However, the teachers' capacities are major weaknesses due to insufficient numbers of teaching staff with suitable qualifications to teach the assigned subjects. The training on the curriculum development, instructional strategies and the methods and criteria of student assessment should be prioritized and organized for the teacher professional development.

- 4.4) The research findings indicate that the shared vision, mission and goals actually appear to be the strength. All staff in each school must recognize their school vision, mission and goals; the school programmes should proceed in the same direction towards the school goals, they should be planned and implemented to be aligned with the shared vision, mission and goals of the schools.
- 4.5) The research findings indicate that the shared leadership and shared decision-making is the strongest aspect. Dufour (2004) emphasizes that the teachers should make decisions based on the evidence or available data; they must possess skills in examining and analyzing the data and use the analyzed data for decision making. 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).

Recommendations

- 1. Recommendations in utilizing the research findings
- 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 PNImodified 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 organizing a quality mentoring programme for mentor teachers to develop their skills and expertise in coaching and guiding their mentees.
- 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 allocates 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 teacher development division should organize the continuing professional development for teachers of BMA schools to develop lesson observing skills and giving constructive feedback to their colleagues. The school administrators should provide time for teachers to observe each other's lessons and to meet regularly to discuss the teaching practice.

- 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. This approach will allow teachers to collectively learn from one another, to continuous improve professionally by engaging themselves in discussion, sharing knowledge and generating ideas among themselves with a focus on improving student achievement.
- 1.4 Based on the research findings, the PNI_{modified} 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 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. 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 mobilization of human resources among the schools within the networks in order to solve the problems of insufficient qualified staffing.
- $1.5~{
 m Based}$ on the research findings, the ${
 m PNI}_{
 m modified}$ 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.

2. Recommendations for the Future Research Studies

- 2.1 Based on the research design, the attributes of the professional learning communities(PLCs) were studied, analyzed and synthesized 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.
- 2.2 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.
- 2.3 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.

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