

Primary School Teachers in 21st Century in Bangladesh: Some Potential Aspects for Professional Development Identified from Relevant Literatures

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Abstract

In the context of 21st century, the changes in different educational aspects are taken place rapidly. This is because to respond to the needs of the fast growing technology-based educational opportunities that require more capable teachers with multifaceted competencies. Bangladesh has paid highest attention to implement competency-based curriculum for its primary level of education. National Curriculum and Textbook Board (NCTB) in Bangladesh reformulated its competency-based curriculum goal, objectives, terminal competencies along with the related attainable competencies, subject specific competencies, learning outcomes and other related aspects. Besides, NCTB initiated to incorporate the international updated teaching-learning methods and techniques, interactive instructional strategies, formative assessment procedures in each grade and each subject to address the 21st century teaching-learning needs in its last revised curriculum in 2012. However, the teachers with multifaceted competencies that address their appropriate level of knowledge, skills and attitude can positively influence in creating such a supportive classroom practices for 21st century learners. The Forth Primary Education Development Program (PEDP4) of Ministry of Primary and Mass Education (MoPME) in Bangladesh has highly emphasized to implement Continuous Professional Development (CPD) as an approach to strengthen its professional competencies for the government primary school teachers. This paper has been prepared based on the ideas explored through some relevant literature review. It basically identified some potential aspects for the teachers' professional development of government primary schools in Bangladesh in 21st century context. This paper explored that the process of promoting teachers' competencies need to be followed by set of activities with multifaceted continuous and regular manner at school setting.

Keywords: teachers' professional development, Continuous Professional Development (CPD), primary school teachers in 21st Century, primary school teachers in Bangladesh

1. Background

Primary education in Bangladesh is one of the largest primary education systems in the world with an estimated 17.4 million primary school children aged from 6 to 10 years ((MoPME, 2017, UNICEF 2009, ADB 2011). Bangladesh has made incredible achievements in quantitative aspects in primary education (World Bank, 2017; MoPME, 2017; Education Watch, 2013, ASPR, 2016; DPE, 2014). According to Primary School Census Report (2017), the total number of primary schools in Bangladesh was 133,907 (25 different types of schools). Among those, three major types: 29% are Government Primary School (GPS); 20% are Newly Nationalized Primary School (NNPS); 18.37% are Kindergartens and the rest of them are other different categories. The total number of enrolled children in all types of primary schools was 17,251,350; of which the percentage of girls was 50.7% (MoPME, 2017). Besides, in types of primary schools in Bangladesh the number of teachers in 2017 was 574,001 of which 61.3% were female teachers. Female teachers has increased significantly over the past six years from 43.5% in 2009 to 61.3% in 2017 (MoPME, 2017) The Ministry of Primary and Mass Education (MoPME) is the main primary education provider in Bangladesh. Primary Education Compulsory Act passed in 1990 made primary education free and compulsory for all children up to Grade 5. It made an incredible gains over the last two decades by ensuring access to primary education. Net enrolment rate at the primary school level increased from 80 percent in 2000 to 98 percent in 2017. Completion rate increased more than 20 percentage points from 60% in 2010 to 81.2% in 2017 (boys: 78.28% & girls: 84.08%). Achieved gender parity in access, in addition to dramatic decreases in disparities quintiles at both the primary and secondary levels. (World Bank, 2016). The findings of the APSC Report, 2017 revealed that regarding the primary education in Bangladesh almost all the indicators are moving forward (MoPME, 2017).

Even though Bangladesh has made incredible achievements in quantitative aspects in primary education in Bangladesh, it faces mentionable number of challenges in promoting quality teaching and learning (World Bank, 2017; MoPME, 2017; ASPR, 2016; DPE, 2014; Education Watch, 2013; Ahmed, 2011; Ahmed & Williams, 2010). The research findings by Education Watch (2013) indicated poor literacy and numeracy skills among students. Only 25 percent to 44 percent of the students in grades 5 through 8 have mastery over Bangla, English and math. Performance on these measures is especially low among poor students. Ministry of Primary and Mass Education (2017, p.2) claimed that *in terms of quality education, student's learning achievement Bangladesh has not yet made* (MoPME, 2017, p.2). World Bank (2016) pointed out that curricula, teaching approaches, and examination systems in Bangladesh focus more on rote learning than on competencies, critical thinking, and analytical skills. Besides, the expansion of school enrolment has led to recruitment of large number of teachers at primary education level (Islam, Sadequl, 2016). However National Curriculum and Textbook Board (NCTB) in Bangladesh reformulated its competency-based curriculum goal, objectives, terminal competences along with the related attainable competences, subject specific competences, learning outcomes and other related aspects. Besides, NCTB initiated to incorporate the international updated teaching-learning methods and techniques, interactive instructional strategies, formative assessment procedures in each grade and each subject to

address the 21st century teaching-learning needs (NCTB, 2016).

However, findings in different researches reveal that teacher quality has a significant level of lasting effect on students' learning. It is clear that teacher is the most common denominator in school improvement and student achievement. Teachers are ultimately responsible for facilitating the learning outcomes into the classroom situations and it requires a strong and efficient professional competencies for them (CAIE, 2018; Selvi, 2010). Therefore, teachers with high quality teaching competencies have been identified as the key factor in promoting quality teaching-learning practices at classroom situations in Bangladesh (MoPME, 2017, p.73).

2. Potential Aspects for Teachers' Professional Development

2.1 Historical Phases of Teachers' Professionalism

Hargreaves & Fullan (2000) illustrated the aspects about four broad historical phases of the changing nature of teachers' professionalism: (a) the pre-professional age, (b) the age of the autonomous professional, (c) the age of the collegial professional, and (d) the fourth professional age.

In pre-professionalism age the teaching was taken as managerially demanding but technically simple. Its principles and parameters were treated as unquestioned common sense. On the other hand, in age of autonomous professionalism 'individualism and isolation were identified as widespread features of the culture of teaching. Thereafter, in the age of the collegial professionalism '*collaborative cultures was growing due to the knowledge explosion, the widening of curriculum demands, the increasing range of special education students in ordinary classes, and the accelerating pace of change. Teaching was becoming even more difficult and complex, and efforts to build cultures of collaboration were increasing* (Hargreaves & Fullan, 2000, p.51). In this situation teachers were provided the initial teacher training, on-going professional development learning activities along with the mentoring initiative in particular. The professional development initiatives for the teachers were increasingly demanding in this period. The teachers' preparation initiatives that time mostly included based on the following aspects:

- *Teachers learn to teach in new ways.*
- *Professional learning is seen as a continuous process, grappling with complex and evolving issues.*
- *Continuous learning is both an individual responsibility and an institutional obligation.*
- *Professional learning is not to be found in a choice between school-based and course-based modes of provision but in an active integration of and synergy between the two.*
- *Collegial professionalism means working with, learning from, and teaching colleagues.*
- *Teaching must be framed and informed by professional standards of practice that define*

what good teachers should know and be able to do and what qualities and dispositions they should possess to care for and connect with their students.

Finally, the fourth professional age is in the new millennium when the world is going through a profound social, economic, political, and cultural transformations. This time there is more access to digital network, the content and the process of professional learning should include the needs of 21 century teaching and learning. Teaching and learning is also more complex and diversified now. In this situation, more compressive, supportive nature of mentoring is suggested that should be provided to all teachers, not only to some selected teachers or novice teachers. Analyzing the challenges of 21st century learning needs the authors have suggested new dimension of mentorship that will help teachers grow not only in subject knowledge and pedagogical skills, rather it will provide necessary psychological and/or emotional support to be effective and efficient teachers.

2.2 Learning Needs and Learning Skills for 21st Century Learners

Children in 21st century require more complex skills to prepare them to be competent learners for effective education and work in this century. In this situation, classroom practice needs to be aligned with the instructional methods and materials that can meet learners' required level of competencies. The skills that the children in the 21st century should avail are deep mastery of challenging content, critical thinking, complex problem-solving, effective communication and collaboration, and also self-direction (Eaude, 2018, Hammond, Hyler & Gardner, 2017). The teachers having appropriate level of knowledge, skills and attitude can positively influence in creating such a supportive classroom practice necessary for 21st century learners. Therefore, effective professional development for teachers is required to help them recognize and refine the proper pedagogies to ensure effective teaching and learning in the 21st century primary school classrooms.

Fullan and Langworthy (2014) pointed out '*Deeper Learning*' that refers to the learning that is facilitated for delivering meaningful learning context in an innovative way. It enables students' competencies to acquire the expected level of knowledge, skills and attitudes to be applied in their real life situations. To promote deeper learning Fullan and Langworthy (2014) suggested a new pedagogy that raises the issue of teacher quality where teachers' ability is to form partnerships with students to accelerate their mastery on the learning process. As they mentioned:

In new pedagogies model, the foundation of teacher quality is a teacher's pedagogical capacity – their repertoire of teaching strategies and their ability to form partnerships with students in mastering the process of learning (Fullan and Langworthy, 2014, p.3).

Fullan and Langworthy (2014) pointed out that the pedagogy in last century emphasized mostly on the teachers' ability to deliver the content and prepare the learners to reproduce the desired content areas. The new pedagogy aims to help learners achieve deep learning goals that involve the creation and use of new knowledge in the real world. Besides, the new pedagogy suggested by Fullan and Langworthy (2014) becomes manifest in the new learning partnerships. They emerge the learning partnership between and among students and teachers where the learning

process becomes the focal point and it goes with mutual discovery, creation and use of knowledge. They also pointed out the availability of digital access inside and outside of the schools to be incorporated in their new suggested pedagogy.

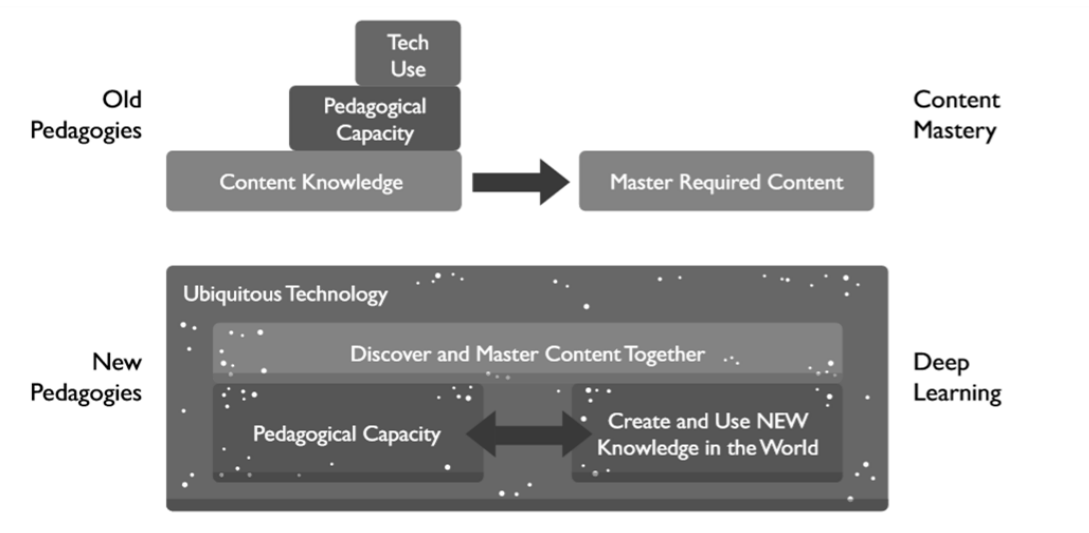


Figure 1. Difference between Old Pedagogies and New Pedagogies
(Source: Fullan and Langworthy, 2014, p.3)

The students who receive deeper learning are expected to be an advantage in their further education and carrier (Brookins, 2016; Fullan and Langworthy, 2013). Different scholars and organizations have identified different aspects about the competencies require for the 21st century learners. Ross (2017) pointed out ‘4Cs’ to explain about the learners learning in 21st century as Collaboration, Critical Thinking, Creativity and Communication.

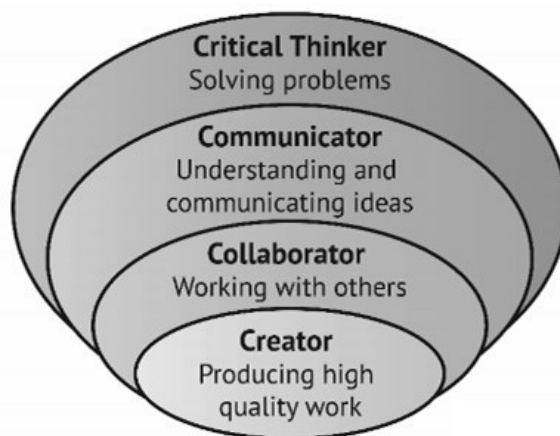


Figure 2. 4 C's in Leaners' Learning

Ross (2017) mentioned that teaching the students' to know how to work together through collaborative and cooperative learning approaches make them more responsible to learn effectively. In addition to that, teaching students to work with others within the community on different social issues can promote their commitment to civic participation. Furthermore, communication skills has been identified as crucial learning aspect through which students' interpersonal as well as intra-personal communication skills are enhanced. It prepares them to meet the 21st century complexities in real life situations. Besides, critical thinking has been recognized as one of the core competence for the 21st century learners. This is the era with full of information and the students are surrounded by the information in different sources. Therefore, they require to be critical in accepting the thoughts and ideas from various sources with an extensive skills of critical thinking approach. Based on the literatures, Ross (2017) mentioned that critical thinking include the following four core skills:

1. *Systems Analysis*: It refers to the individual's ability to determine the relationship between aspects in a wider system. It requires the skills so that the leaners can critically analyze how the different aspects in a context are interacted each other and influence to make a consequence outcomes.
2. *Argument Analysis*: It refers to the individual's ability to draw logical conclusions based on data or claims around. It requires to have the skills to analyze the pros and cons of each data or claim and based on that ability to draw logical conclusions.
3. *Creation*: It includes the ability to construct a strategy, theory, method, or argument based on a synthesis of evidence. The creation explores beyond the existing evidences. Synthesizing the existing evidences it creates a strategy, theory or related methods that goes beyond the information at hand.
4. *Evaluation*: Finally critical thinking includes individual's ability to judge the quality of procedures or solutions. Evaluation involved different positive and negative lenses to analyze the situations in criticizing the piece of work or product using a set of standards or specific framework.

However creativity refers the creation of new and worthwhile ideas that include both incremental and radical concepts. It provides opportunity one's to refine, analyze and evaluate own ideas in order to improve and maximize creative efforts. Besides, it allows to be open and responsive to new and diverse perspectives and to incorporate the group input and feedback into the work. In addition, it requires to act on the creative ideas that ultimately make a tangible and useful contribution to the field in which the innovation is taken place. However, Trilling and Fadel (2009) pointed out the 21st skills into three main areas:

- *Learning and innovation skills*: critical thinking and problem solving, communications and collaboration, creativity and innovation
- *Digital literacy skills*: information literacy, media literacy, Information and communication technologies (ICT) literacy
- *Career and life skills*: flexibility and adaptability, initiative and self-direction, social

and cross-cultural interaction, productivity and accountability

The learners today live in a fast-changing world, and knowledge and skills that they produce more of the same will not suffice to address the challenges of the coming future. In last century, teachers could expect students will last their learning for a lifetime what was taught to them. Today, because of rapid growth of economic and social aspects, the role of schools is to prepare them for challenging the multifaceted realities with lot of dynamics that have not yet been created, technologies that have not yet been invented and problems that they do not know will arise. The role of teachers in 21st century is to prepare themselves with some core competencies and transfer those competencies to their learners. Therefore, teachers' professional development and their teaching competencies require to be aligned with the needs of 21st century professional learning (Schleiche, 2018). In short, in 21st century, what the learners learn, the way they learn it, and how the teachers facilitate the learning is changing according to the current pace of needs. This has implications for classroom practice as well as teachers' professional development (Schleiche, 2018).

2.3 Competencies for 21st Century Teachers

Teachers are ultimately responsible for operating the educational outcomes into the classroom situations in schools and therefore they need strong and efficient professional competencies (CAIE, 2018; Selvi, 2010). In the context of 21st century, the change in different educational aspects (curriculum, instructional methods, learners learning need, professional development learning etc) are taken placed very rapidly depending on the demands of the era requiring more capability for teachers.

Competencies include the knowledge, skills, attitudes, values, motivations and beliefs the professionals need in order to be effective and efficient in the area of professional workplace (Gupta, 1999). According to ideas found in different literatures, commonly the teachers' competencies are divided into three main areas as field competencies, pedagogical competencies and cultural competencies. Teachers' professional learning should be composed of different other dimensions including the three main areas mentioned above (Bulajeva, 2003; Bridge 1993; Hansen, 1998; Stoffels, 2005).

A teacher having appropriate level of professional competencies is highly capable to provide the necessary opportunities to the learners. S/he helps the learners to reflect critically with their creativity and innovative thinking ideas and it is the foundation for thoughtful learning process for both teachers and learners. The teacher with appropriate level of teaching competencies is usually the teacher with high esteem who can effectively transfer the required level of knowledge and skills to the learners (SPRINT, 2009). An intensive research study by Selvi (2006) identified the areas for teachers competencies based on the views from the teachers and teacher educators. The results of the study indicated that teachers' professional competencies might be composed in four main subgroups e.g. Curriculum Competencies, Lifelong Learning Competencies, Social-Cultural Competencies and Emotional Competencies. The study showed that teachers' competencies do not include only a straight forward simple specific aspect of teaching and learning in the classroom situations, rather it must be discussed from a different point of views. Based on an extensive related literature review, Selvi (2006) identified the

different dimensions of teachers' professional competencies that include features of professional competencies categorized into following specific areas:

- *Field Competencies/teachers' teaching competencies to be practiced into classroom situations (what to facilitate, how to facilitate, how to address the learners' learning needs in the classroom practice etc.)*
- *Research Competencies*
- *Curriculum Competencies*
- *Lifelong Learning Competencies*
- *Social-Cultural Competencies*
- *Emotional Competencies*
- *Communication Competencies*
- *Information and Communication Technologies (ICT) Competencies*
- *Environmental Competencies*

Professional development is a strategy to improve the teachers' teaching and other related capacities. For ensuring an effective professional development process, it requires to be implemented properly (Susanna et al., 2009). Professional development is essential element for teachers to be considered in a way of enhancing their knowledge, skills and attitudes to perform the professional responsibilities appropriately. Teachers need to be competent enough to understand each student's learning needs, interests, capabilities and other related characteristics (CEP, 2013, p.26). However, teachers' professional development initiatives require to be linked with the desired aim and objectives of curriculum, targeted methods and materials and schools' instructional goals (Susanna et al., 2009). It is mentioned in SMT manual (2010) that for ensuring professional development firstly a teacher will select his/her own competencies and then s/he will fulfill his/her professional development record regularly. S/he will discuss teaching-learning process with his/her colleagues. Then s/he will generate changeable issue or new roles in their professional development process. Teachers can develop themselves through collaboration and collegiality Ainscow & Southworth (1996, p.251). Susanna et al (2009, p.223) also emphasized on professional development through the teachers' active participation in collegial interactions and experience sharing at group level.

3. Potential Aspects for Teachers' Professional Development in Bangladesh Context

Lunenburg, & Ornstein (2012) suggested some characteristics and competences for teachers to be effective in classroom teaching. Their suggestions might be relevant in the context of government primary schools teachers in Bangladesh in following ways:

At first, the teachers should be '*democratic*' in facilitating the classroom instructions and activities rather they tend to be as '*authoritarian*' or the '*laissez-faire*' (Lunenburg & Ornstein,

2012; p412-413). Many cases the teachers deal with the students is highly directive manner where teachers like not to be active themselves, and also many cases they rarely engaged the students in active participations. The research evidence shows that the quantity of the children in classrooms has been raised in Bangladesh. The challenges remain with the quality of classroom activities (MoPME, 2017; World Bank, 2016; Education Watch, 2013; UNICEF, 2011). Only about half of the primary school graduates achieve the minimum national curriculum competencies (UNICEF, 2011). Some cases the teaching techniques in primary classrooms are highly teacher directed. Students are not actively involved in teaching-learning process where teachers themselves talk more. Students are not recognized by the teachers, even if they tried to get teachers' attention through asking questions. In addition, book-based one way deliberation unfortunately was most popular in many cases in Bangladesh (World Bank, 2016; Education Watch, 2013). Moreover, implementing effective individualized teaching in classroom in government primary school in Bangladesh is indeed a challenging task (MoPME, 2017; World Bank, 2016; Rashid, F., 2015). Considering the above mentioned situations, teachers in Bangladesh may follow 'democratic' as 'teacher style' mentioned by Lunenburg & Ornstein (2012, p412-413) as follows:

The democratic teacher encourages group participation is willing to let students share in the decision-making process. This behavior is typical of what is now called the indirect teacher. The laissez-faire teacher (now often considered to be an unorganized or ineffective teacher) provides no (or few) goals and directions for group or individual behavior.

Besides, teachers should pay attention to consider the issue of 'teacher interaction' that illustrates the teachers behaviors in communicating styles with students combining both of their aspects of 'verbal communication' and 'nonverbal communication' (Lunenburg & Ornstein, 2012; p.414). Lunenburg & Ornstein (2012, p412-413) mentioned that many cases 'classroom activities are carried out in large part by verbal interactions between students and teachers; few classroom activities can be carried out without the use of language. Teachers should be competent in following the 'teaching cycles' that include the steps of 'structuring moves', 'soliciting moves', 'responding moves' and 'reacting moves'. Nonverbal aspects (smiles or frowns, eye contact, head nods, gestures, dress, interaction distance, touch, body movement, postures and seating arrangements) need to be combined with the verbal communication consistently. Teachers should be competent in using both the verbal and nonverbal communication aspects efficiently to ensure an effective teaching interactions in classroom situations.

In addition, primary school teachers in Bangladesh context have scope to be more sensible in following the basic characteristics e.g. resourcefulness, intelligence, emotional stability, buoyancy (or enthusiasm), and considerateness (or friendliness) recommended by A. S. Barr through reviewing some fifty years of research (Lunenburg & Ornstein, 2012; p.418). Specifically the factors described in 'The Good and Brophy Model' suits most for the teachers in Bangladesh context. This model mentions some basic principles of teaching that may help teachers to facilitate effective teaching and student learning accordingly. To ensure effective teaching, teachers in Bangladesh may consider the following principles of teaching that are

suggested in ‘*The Good and Brophy Model*’ (Lunenburg & Ornstein, 2012; p.420-421):

1. Clarity about instructional goals (objectives)
2. Knowledge about content and ways of teaching it.
3. Variety in the use of teaching methods and media.
4. “*With-it-ness*,” awareness of what is going on, alertness in monitoring classroom activities.
5. “*Overlapping*” sustaining an activity while doing something else at the same time.
6. “*Smoothness*” sustaining proper lesson practicing and group momentum, not dwelling on minor points or wasting times dealing with individuals, and focusing on all the students.
7. *Seatwork* instructions and management that initiate and focus on productive task engagement.
8. Holding students *accountable* for learning; accepting responsibility for student learning.
9. *Realistic* expectations in line with student and abilities and behaviors.
10. Realistic praise, not praise for its own sake.
11. *Flexibility* in planning and adapting classroom activities.
12. Task orientation and businesslike behavior in the teacher.
13. Monitoring of students’ understanding; providing appropriate feedback, giving praise, asking questions.
14. Proving students opportunity to learn what is to be tested.
15. Making comments that help structure learning of knowledge and concepts for students, helping students learning how to learn.

The principles under ‘*The Good and Brophy Model*’ may help teachers in Bangladesh to strengthen their beliefs in cooperative learning. Teachers can focus on learners’ learning needs considering their individual learning styles and learning abilities. They can foster the learning through using formative assessment where teachers provide the feedback to use the existing level of learning to be used for further learning. In addition, teachers will be confident in emphasizing the learning process (how to learn) rather than the content (what to learn). This subsequently helps teachers to be grounded with solid understanding that knowledge and skills on pedagogy (how to deliver the content to the students) is equally important as having knowledge and skills on targeted contents. However, for promoting effective teaching and learning, teachers should consider the learners at the center of the teaching-learning process. Teachers’ competencies in facilitating humanistic approach of teaching can ensure the quality teaching and learning for all the students in Bangladesh irrespective of gender, sex, race, religion, ethnicity, social status etc because ‘*these teachers are dedicated and caring, they actively engage students in their classrooms, and they affirm their identities. The students do not have to ask whether their teacher is interested in them, thinks of them, or knows their*

interests or concerns. The answer is definitely “yes” (Lunenburg & Ornstein, 2012; p432).

4. Recent Initiative of Teachers Professional Development in Bangladesh

4.1 Continuing Professional Development (CPD)

Continuing Professional Development (CPD) is a teachers' development approach that includes an ongoing process of professional development activities in different forms (conscious and planned along with the natural/informal learning experiences). The approach of CPD believes in continuing the development activities throughout the teachers' professional teaching carriers. It includes the teachers' professional learning needs as a regular basis and provides diversity alternative opportunities (individual reflection, collaborative learning opportunities, coaching, mentoring, receiving and analyzing feedback from multiple sources e.g. reports, portfolio, improvement scopes from monitoring and supervision etc.). However, the government of Bangladesh has highly emphasized to implement Continuous Professional Development (CPD) as an approach to strengthen its professional competencies for the government primary school teachers (MoPME, 2018). The Forth Primary Education Development Program (PEDP4) pointed out that *'the teacher is the most important school-related factor responsible for better learning'*. It focuses highly on improving the quality of teaching-learning practices by the government primary school teachers aiming through the improvement of *'the availability of the teachers and the quality of their pedagogy. The observation and assessment of teaching-learning practices based on Teacher Professional Standards. The quality and effectiveness of continuous professional development activities which are focused on pedagogy, and ensuring that teachers have equitable and regular access to learning opportunities suited to their needs.'* (MoPME, 2018, p.211). Along with the comprehensive CPD approach that includes the specific activities from the grassroots level to the national level, the document of PEDP4 specially suggests to prepare a detailed school-based CPD framework and related specific CPD activities to be implemented throughout the PEDP4 period of 2018-2023. It strongly suggests to consider the professional standards for teachers stated in the Teacher Education and Development (TED) Plan in 2011 (MoPME, 2018, p.220).

The School-Based Continuing Professional Development (SBCPD) is the way of CPD activities that is carried out aiming to the implemented at school setting. It includes the different forms of CPD activities to be taken at school setting and includes the participations from different stakeholders (alongside the teachers, head teachers, academic supervisors etc) related to school as an educational institutes. It targets to provide a regular ongoing opportunities for the teachers at school level to grow their professional competencies. It aims the self-development of each teacher, development in group and eventually institutional development. Eaude (2018) and Hammond, Hyler & Gardner (2017) suggested three specific aspects of teachers' professional development to carried out at school level and these are: teacher's individual effort; collaborative engagement and integration with relevant support system

Firstly, it emphasizes the teachers' professional leaning at their individual level where teachers

should be autonomous in identifying their own learning needs. Teachers themselves need to take the responsibility for promoting their own professional learning. Teachers need to reflect their own professional expertise and then determine the possible ways for their further improvement themselves. Thereafter, the teachers need to be undergo the process of professional development within the collaborative manner where they will collaborate with each other and enhance their professional development. Besides, collaborative planning with other teachers, there are the options for peer coaching and observations, mentoring and as support learning. Teacher supervisors need to play an active role in creating such a collaborative opportunities at school setting. It has also emphasized their participation in learning communities that include diversity relevant teachers and other related communities. Moreover, the teachers should have the opportunities to interact with technology-facilitated activities that provide them to be updated with latest knowledge, ideas and thoughts generated according to the need of fast changing world. Moreover, for teachers' effective professional development, the school itself should have a strong integration with the relevant support system. Eade (2018) pointed out the aspects related to integration with relevant support system as follows:

- Integration with school improvement initiatives
- Linkage with broader professional continuum
- Linkage with teachers' appraisal procedure
- Recognition of leadership opportunities with flexible carrier paths

Eade (2018) mentioned that professional development initiatives should address the broader professional continuum that ultimately widen their opportunity in future. Besides, it should be aligned and linked with the appraisal procedure under which their performances are supervised and monitored. Besides, there should have a strong process of recognizing the leadership opportunities for the teachers that will show a flexible and clear carrier paths for them.

4.2 School Leadership and Continuous Professional Development

School leadership can play an important role in promoting continuous professional development for government primary school teachers in Bangladesh in 21st century context. Findings from the studies revealed that effective school leadership crates intensive supporting conditions for the teachers through CPD activities at school setting under which teachers can optimize their teaching practices in classroom situations (Ainley & Carstens, 2018; Hallinger, 2011; Reynolds & Muijs, 2016). CPD is s a teachers' development approach that includes an ongoing regular process of professional development activities in different forms (conscious and planned along with the natural/informal learning experiences). The approach of CPD includes continuing the development activities throughout the teachers' professional teaching carriers. It also includes the participations from different stakeholders (alongside the teachers, head teachers, academic supervisors etc) related to school as an educational institute. It focuses

on the different forms of activities where the teachers derive for promoting their professional development through individual effort (e.g. self-reflection, self-regulated learning initiatives e.g.), collaborative development in group and eventually through institutional network and linkage development initiatives.

Government primary schools in Bangladesh may follow the scope of school leadership to strengthen the initiatives of CPD at school setting. Leadership has been identified as an important school-level factor. School leadership promotes teachers' quality, enhances teaching and learning practices, building relationships in inside and outside the school community and so on and it ultimately improves the practices of teaching and learning for both students and teachers (Ainley & Carstens, 2018; Hallinger, 2011; Reynolds & Muijs, 2016). School leadership includes three specific aspects of leadership at school setting, these are: instructional leadership; shared leadership and system leadership. Instructional leadership plays an important role in promoting teachers' teaching competencies. It help teachers develop high-quality instructional practices through providing the constructive feedback for teachers, modelling effective instructions and support teachers in using the effective use of data on students' achievement for formative assessment purpose. Educational research findings showed a strong relationship between the quality of teaching and students' leaning achievements. The more quality teaching can be provided to the students more effectively the students achieve the desired outcomes (Darling-Hammond, 2000; Hattie, 2009; Jensen et al., 2016; Rowe, 2003). Quality feedback motivates teachers as it provides necessary guidance to know about their strengths and weaknesses in order to promote their competencies. Specific feedback provided by head teacher, school supervisor and colleagues also enhance their understanding about existing level of competencies and help them set a desirable targets for further improvement. Whereas, distributed form of shared leadership is being increased recent years where leadership is considered a property of the school rather than as an individual leader only like head teacher/principal. Here the leadership is exercised in a collaborative and collective manner where the teachers are engaged in leadership process. It increases the teachers' self-efficacy' and it ultimately fosters collective school culture and promote teachers' teaching competencies at school setting. Even though head teachers (Harris, 2014; Hallinger & Heck, 2010). However in this situation, head teacher is not considered as less-important in leadership process at all, rather s/he takes the steering role in distributing leadership opportunities to all other teachers. School's vision and mission influences to its professional development conditions in the school culture. A good school initiates to prepare its human resources with the teachers to be competent enough to accomplish its goal. The school emphasizes highly on creating a culture that encourages its professional resources including teachers to be active and engaged in the schooling system. It arranges different form of professional development activities that include the opportunity at teachers' individual level, collaborative level and also with the aspects within the school and related factors even outside the school to strengthen the relationship among professionals (Day et al., 2010). To create high quality of professional learning culture, the school allows its teachers here in this situation to take leadership roles both within and outside the classrooms. Those roles however ultimately encourages teachers to work collaboratively with colleagues in improving the pedagogy and their own professional competencies. Besides, they contribute through their voice in the

development of school's vision and goals (Harris and Muijs, 2004; Portin et al.; 2013).

System leadership extends the leadership exercise beyond the school campus. Recent years the emphasis is being given to exercise leadership not just within the school campus setting, rather the importance lays beyond the school. This is because the school is needed to widen its interconnected networks and to create extended opportunities to collaborate with the experiences from others to maximize positive outcomes. The network should be extended from within the school setting to other connected schools and institutions and across the communities. Here in this case, the schooling system may incorporate the system leadership approach (Ainley and Carstens, 2018).

5. Conclusion

Continuous professional learning can foster teachers' teaching competences and professional commitment to be devoted in professional practices. The approach of Continuous Professional Development (CPD) has high potentials and a powerful influence on the improvement of teachers' teaching practices and other related professional aspects to maximize their contribution in quality primary education. CPD activities for the teachers should be incorporated with the development plan for the school as a whole. Therefore, the pre-service and in-service teacher education, training and other relevant initiatives should focus on incorporating the related teachers' professional learning aspects to be implemented at school-based setting. However, the initiative of CPD at primary school setting requires an intensive grassroots level research through investigating the contextual realities particularly in Bangladesh context.

Based on the research evidences, a comprehensive plan for teachers' professional development mechanism with specific CPD activities need to be developed. Besides, a set of concrete operational strategies requires to be designed through the series of further systematic investigations that should include the experiences and suggestions from policy makers, implementing professionals, teachers and head teacher and all other related stakeholders. Furthermore, a detailed CPD assessment and evaluation mechanism need to be developed that may indicate the pace of teachers' professional development and how it can be extended to include the impact on classroom teaching-learning situations. However, Ministry of Primary and Mass Education (MoPME) in Bangladesh has emphasized on CDP in its program plan document of '*Forth Primary Education Development Program (PEDP4)*'. It will ultimately create the supportive extended opportunities for government primary school teachers for promoting continuous professional competencies. It will certainly support them to perform their desired roles and responsibilities to meet the 21st century learning needs for the learners in government primary schools in Bangladesh.

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