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Ministry of Education, Youth and Sport  
Education Research Council



## Research Report

Teacher Professional Development in Cambodia: Four models of professional development at cooperation schools, normal schools, school supported by Save the Children and New Generation School

Phnom Penh, November 2018

ERC

# **Models of Teacher Professional Development in Cambodian Primary Schools: Four Cases from cooperation school, regular schools, school supported by NGO and new generation schools**

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**Ministry of Education Youth and Sport**

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**Phnom Penh, November 2018**

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## Abbreviation

CPD	Continuous professional development
DoE	District Office of Education
DTMT	District Training and Monitoring Team
HEIs	Higher Education Institutions
EGMA	Early Grade Mathematics
EGRE	Early Grade Reading
ESP	Education Strategic Plan
IBL	Inquiry-Based Learning
INSET	In Service Education and Training
MoEYS	Ministry of Education, Youth and Sport
NCTs	National Core Trainers
NGS	New Generation Schools
PED	Department of Primary Education
PLC	Professional Learning Community
POE	Provincial Office of Education
PTTC	Provincial Teacher Training Centres
TCP	Teacher Career Pathways
TEC	Teacher Education College
TEPS	Teacher Education Provider Standards
TGL	Technical Grade Leader
TM	Technical Meeting
ToT	Training of Trainers
TPAP	Teacher Policy Action Plan
TTD	Teacher Training Department

## 1. Introduction

Education has been central to the national building of all Cambodian governments since the French decolonisation in 1953. Education is even more important for the reconstruction and rehabilitation of the shattered nation following the collapse of the Khmer Rouge, during which 80 percent of teachers were killed. Of the 22,000 teachers in Cambodia in 1968, 7,000 remained in 1979 but only 5,000 returned to teaching and only 300 intellectuals were left after 7 January 1979” (MoE, 1980, p. 48). Although with the scarce human resources in education sector, the new regime managed to build the education at all levels such as primary education, secondary education, higher education and adult education so that children and adults were provided access to education. The regime was to quickly make schools and teaching-learning materials available and recruit teachers to work in some parts of the country (Asian Development Bank, 1996). In the early stage of education development, the main focus was on providing access thereby the quality of education was neglected. Under its slogan “*those who have little level of education, teach those who have nothing and those who have higher level of education, teach those who have lower level of education*”, the government was then to recruit and train individuals who survived the Khmer Rouge with some educational background. Teachers were trained through a various forms of short-term training courses lasting 1 week, a half month, 3 weeks or 1 month. This practice continues and have impact on the quality of education until today.

Since 1993, education has been impacted by the globalization and regionalization to produce human resource to serve the socio economic development of the nation. Conforming with this context, the Ministry of Education, Youth and Sport's vision is "to establish and develop human resources of the very highest quality and ethics in order to develop a knowledge-based society within Cambodia" (RGoC, 2010). The envisioned knowledge-based society is a society with fast and sustainable development in which people have tremendous knowledge in technology, deep understanding of culture and decent living standards with happiness, peace and dignity. This envisioned society is in line with the Rectangular Strategy Phase III and the Industrial Development Policy 2015-2025, which aims to shift from low-income country to upper medium income country in 2030 and a high-income status in 2050. To achieve this vision, education system plays important roles in producing skilled human resource to serve the knowledge based

society. Under the leadership of HE. Dr. Hang Chuorn Naron, since 2013 Minister of Education, a systematic education sector was initiated. Eight reform priorities were put as policy agenda. Those education reform priorities are (1) Improving the quality of learning and teaching; (2) Increasing civil service and teachers' salaries and introduce merit-based appointments; (3) Providing more resources to the front-line service providers; (4) Reforming the examination system; (5) Establishing a policy think-tank for education; (6) Reforming youth and vocational skill programs; (7) Implementing higher education reform and student job counselling; and (8) Reforming the sport sector to prepare Cambodia to host the Southeast Asian Games in 2030.

These eight priorities aim to improve the quality and efficiency of public service provided by the Ministry of Education, Youth and Sport. These eight priorities were consolidated in the Education Strategic Plan 2014-2018, which lays out the three main policy objectives in education "ensuring equitable access to education service for all, enhancing the quality and relevance of learning, and ensure effective leadership and management of education staff at all levels" (ESP 2014-2018). Consequently, the government and the MoEYS has increased their commitment to the expansion of education at all levels, particularly at the basic education, to the quality and relevance of education. The results of the expansion of the education sector include soaring enrolment figures from 80%, 42% and 20% at primary, lower-secondary and upper-secondary level respectively, increased numbers of classrooms and schools, a pressing need for more qualified teachers in the schools. To improve the quality of education, curriculum was devised and learner-centred approaches to learning were introduced.

Although the significant progress has been made under the new leadership of the Minister of Education, Youth and Sport, Cambodia education system is still in crisis especially in term of the quality of education. According to national assessments in grades 3, 6, and 8 conducted by the department of education quality assurance of the MoEYS, student learning in language, mathematics and science is low. On average, according to 2016 MoEYS assessment, less than 40 per cent of the students could receive the passing scores in the subjects.

Several factors contributing to quality learning of the children have been studied by the academics and policy makers. Empirical analysis over times and education systems in all



contexts suggest the quality of education is relied on the availability of the adequate and qualified teachers at school. The current basic education system is served primarily by poor performing teachers with non-tertiary qualifications (Tandon and Fukao, 2015), under-qualified contract teachers and less accountable teachers and absenteeism. To tackle the issues pertinent to the quality of teachers, the MoEYS reform focuses on teacher training and development, teacher deployment, development of teacher trainer centres, upgrading teachers' qualifications and teachers' career pathway. Within the context of the reform, the MoEYS has developed a number of policies, standards, frameworks, sub-decrees, and guidelines in order to guide the development of education in general and development of teachers in particular. Among these regulatory documents, there are six key policies related to teacher development such as:

- 1- Teacher Policy Action Plan (2015)
- 2- Teacher education provider standards (2016)
- 3- Curriculum framework of general education and technical education (2016)
- 4- Ministerial regulation (Prakas) on equivalency program for upgrading teacher qualification (2016)
- 5- Teacher career pathways (2018)
- 6- Sub-decree on integrating and upgrading Battambang and Phnom Penh Provincial Teacher Training Center and Regional Teacher Training Center to become Teacher Education Colleges (2017)

Although there have been policy initiatives and programs to upgrade all the unqualified teachers to qualified teacher status through selection criteria for new teachers and short professional development programme. Yet, the majority of teaching staff do not hold bachelor degree as required by the teacher education reform in 2020 (MoEYS, TPAP 2015). As shown in the Table below, about 80 per cent of teaching forces hold certificates below the bachelor.

Table 1. Number of teaching staff by educational level and school level of teaching

Level of Education	School level of teaching			Total (%)
	Pre school	Primary school	Secondary school	
Primary	181	1,104	494	1,779 (1.93)
Lower Secondary	1,662	12,521	5,084	19,267 (20.94)

Upper Secondary	2,814	28,701	20,305	51,820 (56.32)
Bachelor	218	3,585	14,231	18,034 (19.60)
Master	2	95	995	1,092 (1.19)
Doctoral	0	3	12	15 (0.02)
Total	4,877	46,009	41,121	92,007 (100)

Source: MoEYS indicator in 2017

Based on this data, continuous professional development (CPD) for teachers need to be paid attention. Given that CPD is recognized indispensable for dealing with the issues pertinent to teaching quality and student's learning outcome, TPAP sets two main actions related to PD to be undertaken such as institutionalizing a system of school-based INSET at all educational establishments (TPAP Action 6.2.2), including involvement of INSET trainers meeting TEPS criteria and establishing and expanding mechanisms to provide continuous technical supports (TPAP Action 7.3.2) such as study clubs, professional subject societies, technical support groups and regularized technical meetings among subject specialists. Despite these policy initiatives, the current PD programs have not provided teachers with appropriate development programs and helping teachers to implement new curriculum. The current CPD programs are often run traditionally by workshops which do not change teacher's behavior or student learning outcome (Hang Chuon, 2017). It is also found that the current CPD programs are not provided teachers with knowledge and skill to teach in the classrooms. For this reason, teachers especially those who were trained by the old system still have little mastery of the subjects and lack of pedagogical skills to teach students especially those in disadvantageous areas. Chhin and Tabata have argued that many of the trainings provided to primary school teachers do not create an impact on pupils' achievement (2003).

This study responds to policy appeals that are being made to redesign or conceptualize the professional development of teachers as in the TPAP in creating more effective schools and in raising the standards of students' achievements. The objectives of the study are to:

- explore the current PD approaches in policy and practice
- Suggest recommendations for an effective PD at school level

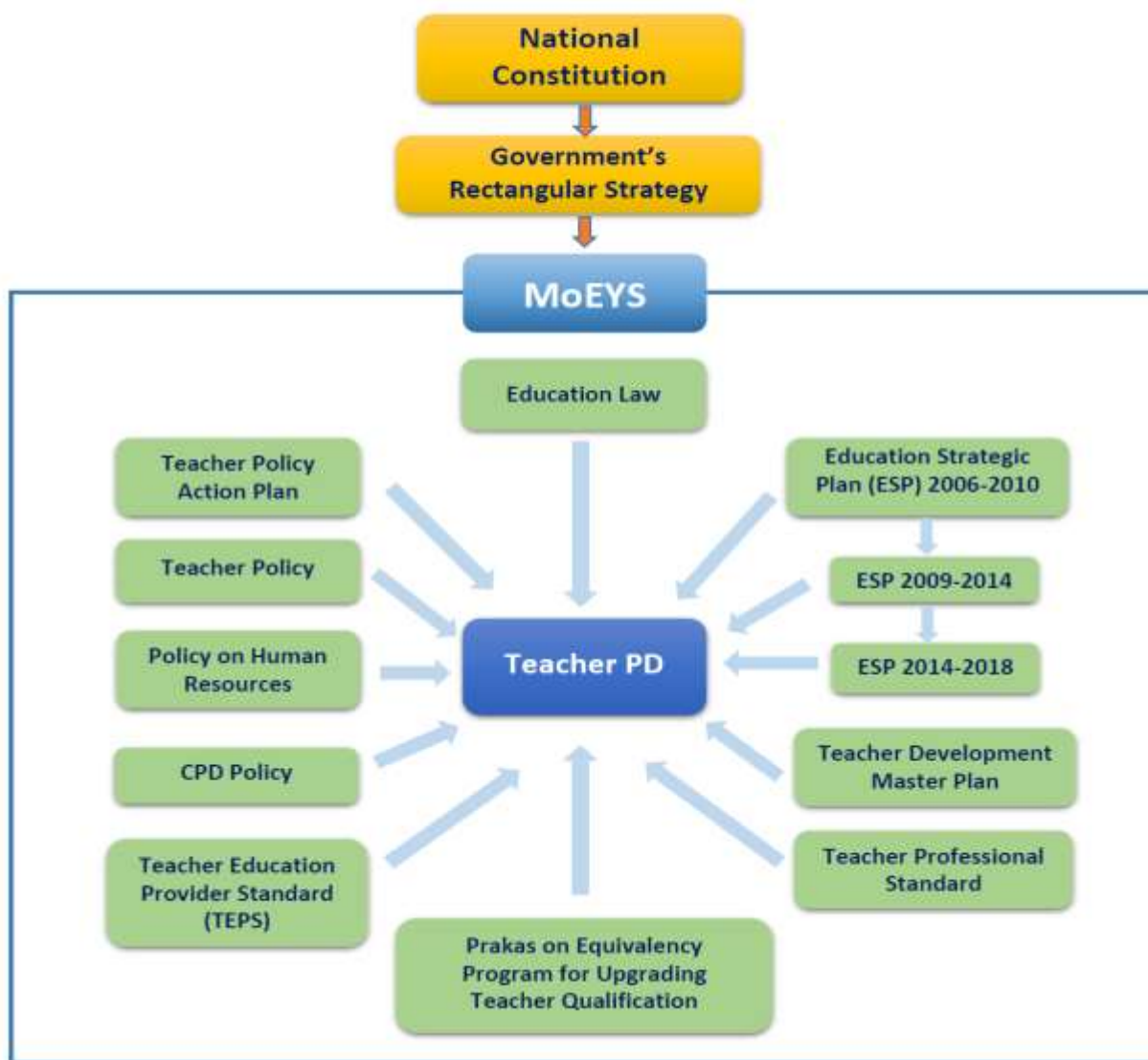
Our research questions are:

1. What are the most effective professional development for primary school teachers?
2. What supporting mechanisms are needed to make professional development effective?

## 2. Literature on Continuous professional development

In this chapter, policies and practices of continuous professional development (CPD) in Cambodia are presented. The concept of effective CPD will be highlighted.

### 2.1 Overview on policies and model of continuous professional development (CPD) in Cambodia



*Figure 1: Policies and legal documents related to CPD*

The national constitution of Cambodia which was enacted on September 21, 1993 includes four articles related to enhancing teacher PD:

- Article 65: “The State shall protect and promote the right of the citizen to a quality education at all levels and shall take every measure to progressively make this education available to all the citizens”.
- Article 66 states that “The State shall establish a comprehensive and unified system of education throughout the country, capable of guaranteeing the principles of freedom of education and equal access to schooling, to offer each citizen, the equal opportunity for the betterment of his/her living conditions”;
- Article 67 states that “The State implements a curriculum and modern pedagogic principles including the teaching of technology and foreign languages.” • Article 68 states that “The State shall ensure for all citizens free primary and secondary education at public schools. Citizens shall receive schooling for at least nine years.” (The Constitutional Council, 2010, p. 22).

## **Law on Education**

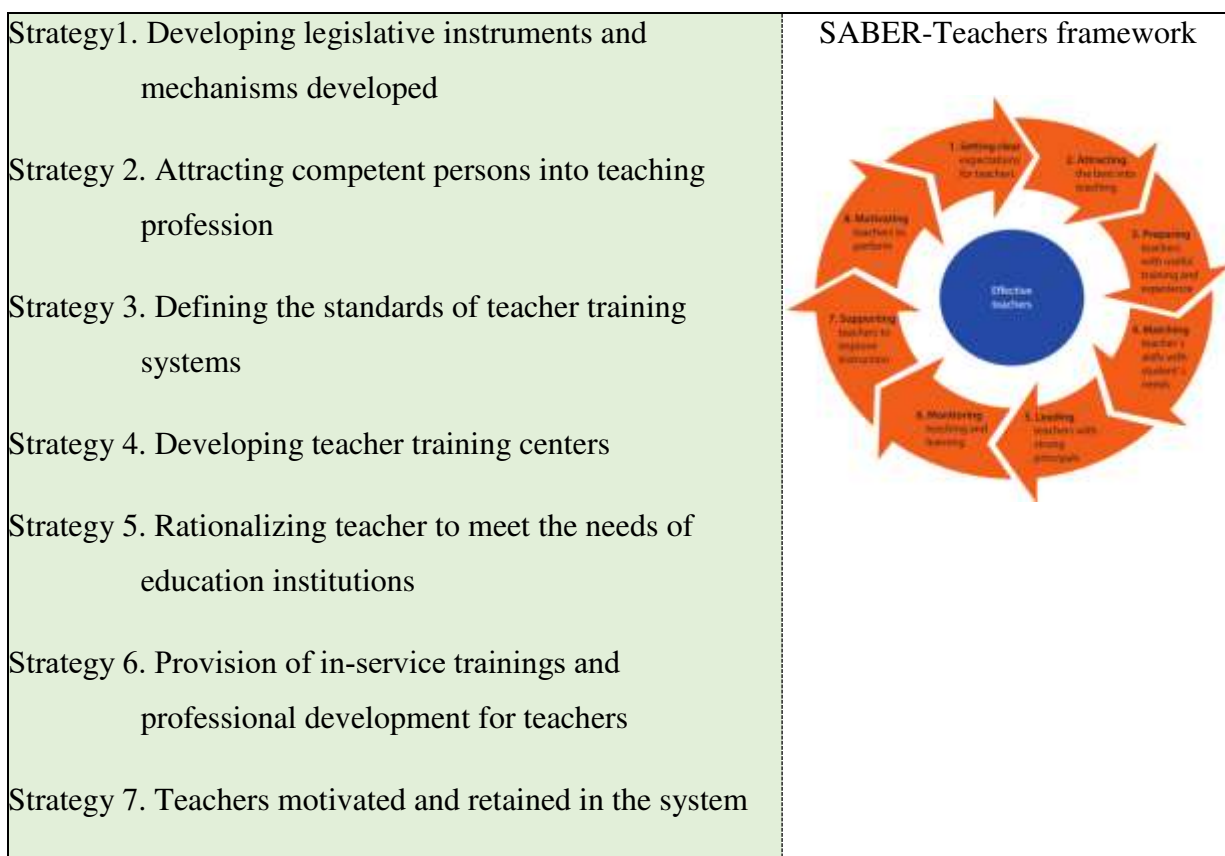
The law on Education guides the education reform in compliance with the international conventions and the constitution. According to article 21, the state "shall promote the quality of education to satisfy the basic education and professional needs for the careers of the learners to better improve their capacity and to enable the learners to efficiently participate in the development of the country". The state is therefore to "pay attention to equip appropriate and modern technique of teaching and learning to ensure its quality and efficiency". Teachers play a crucial role to provide the quality of education. The law therefore imposes the state to train teachers from the initial training to in-service trainings.

Article 20 states that "the state shall train staff through both pre-service and in-service programs. Education personnel must complete pedagogical training, which has been recognized by the ministry in charge of education, except for those who are teaching in and employed by higher educational institutions". The Ministry in charge of education shall determine foundation programs

for the training of education personnel as well as physical conditions and career requirements for the recruitment of education personnel for both the public and private sectors.

## Teacher policy

The purposes of this teacher policy are: 1) to attract and motivate competent persons into the teaching profession, 2) to ensure quality of pre-service teacher training, 3) to ensure CPD and in-service training for teachers, and 4) to ensure the conditions necessary for teachers to fulfil their professional activity effectively and efficiently (MoEYS, 2013, p. 4). In order to provide CPD and in-service training for teachers, the 2013 teacher policy aims “to cultivate a culture of life-long learning and the sharing of professional knowledge and experiences with educational network groups, develop an effective mechanism of on-site teacher support, and develop guidelines on the requirement and benefits of teacher PD”.



Strategy 8. Strengthening effectiveness of school leadership	
Strategy 9. Strengthening teacher monitoring and evaluation mechanism/systems.	

**Figure 2: Teacher Policy Action Plan strategies and WB SABER-Teachers Framework**

### **Teacher Policy Action Plan (TPAP)**

To implement Teacher Policy, MoEYS formulated teacher policy action plan which was enforced in January 2015. TPAP is a roadmap aiming “to develop teachers with quality, competencies and accountability in line with their professional code of conduct as well as providing enabling conditions to fulfil their professional effectively and efficiently”. The TPAP sets out strategies to improve PD.

**Table 2: Teacher PD in TPAP**

<ul style="list-style-type: none"> <li>• Promoting induction activities and mentoring at schools, primarily for new teachers (TPAP Action 3.2.1), and including redistribution of workload of best performing teachers to take on such roles.</li> <li>• Developing and implementing INSET improvements (TPAP Action 6.1.1), involving comprehensive INSET needs assessment and identification of delivery options; creating a new INSET structure within teacher education colleges (TECs), starting with pilot effort in Phnom Penh and Battambang TTCs in 2018 Q2, and other INSET actions</li> <li>• Establishing a “credit system” for INSET participation (TPAP Action 6.1.3), standardized across all INSET activities carried out whether by Ministry, donors, or nongovernmental organizations (NGOs); with unified requirements for each type of INSET; and specifying the number of credits needed for upgrading, higher degrees, and other kinds of benefits</li> </ul>
---

- Strengthening on-site support systems for teachers (TPAP Action 6.2.1) through a study of strengths, weaknesses, and challenges of existing systems, followed by development and implementation of improved mechanisms for delivering subject-matter and pedagogical support
- Institutionalizing a system of school-based INSET at all educational establishments (TPAP Action 6.2.2), including involvement of INSET trainers meeting TEPS criteria.
- Establishing and expanding mechanisms to provide continuous technical supports (TPAP Action 7.3.2) such as study clubs, professional subject societies, technical support groups, and regularized technical meetings among subject specialists
- Providing accelerated training for existing 12+2 teachers to be upgraded to BA holders by cooperating with HEIs (TPAP sub-strategy 2.3.1.2)

### **Teacher Professional Standard**

In order to achieve the best possible learning outcomes, teachers need to comply with a set of standards. These standards would serve as a quality assurance mechanism to improve the quality of teaching. With this regards, the MoEYS developed "teacher professional standard" in 2009 to promote teacher quality and professional standards through a cohesive approach. The standards are composed of four fundamental competencies such as professional knowledge, professional practice, professional study and professional ethic. The below figure demonstrates the standards to informed actions or activities of teachers.

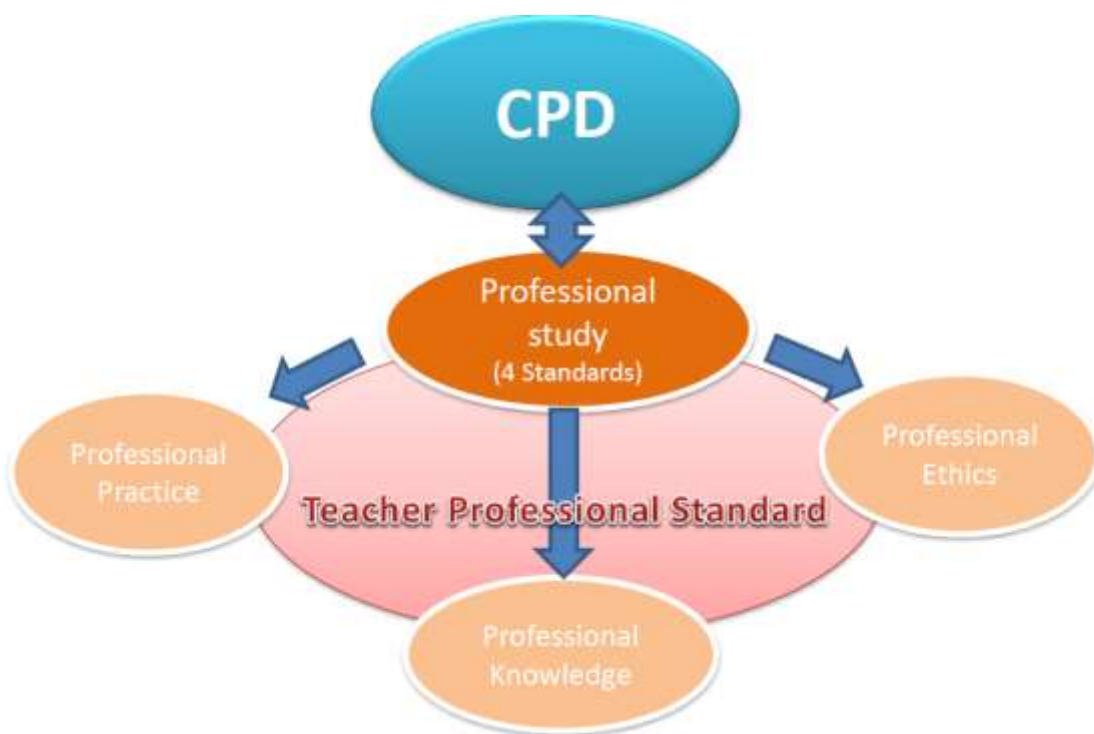




**Figure 3: Cambodian teacher professional standards**

The standards are reinforced by the Sub Decree on the Teacher Professional Code dated 2008. The Sub Decree on Teacher Professional Code of Conduct is legal binding document guiding the course of actions of teachers in their teaching profession ethically and professionally.

This teacher professional code imposes a number of obligations including the professional learning to improve their professional practices through both self-learning and continuous professional development provided by the state as stated in article 9 of the Sub Decree. Teacher Professional Standards as stated in its goal aim to enhance teacher's teaching and learning skills. However, most of teachers have not been aware of these standards let alone the use of the standards by the teachers to guide or inform their professional practices. Another goal is to embed the standards into pre-service teacher training program and in-service training. However, the standards have not been used by the program developer in both pre-service teacher training and in-service training programs. In order to bring about the changes of the practices of teachers in the classroom, the standards need to be connected with practices and experiences of the teachers through the introduction of the standards in professional development programs.



**Figure 4: Cambodian teacher professional standards linked to CPD**

### **Continuous Professional Development Policy (CPD policy)**

Continuous professional development policy was adopted in August 2017 with the objectives:

- To ensure regular professional development framework for educational staff
- To ensure regular INSET for educational staff.
- To ensure the encouragement of enhancing qualification educational staff.
- To ensure the link between Continuous Professional Development and Teacher Career Pathway.
- To ensure the monitoring and evaluation system for regular professional development of educational staff.

There are a number of CPD strategies such as develop the CPD system, conduct CPD need assessment, manage and develop professional development and monitoring and evaluation of CPD.

## **Teacher career pathways**

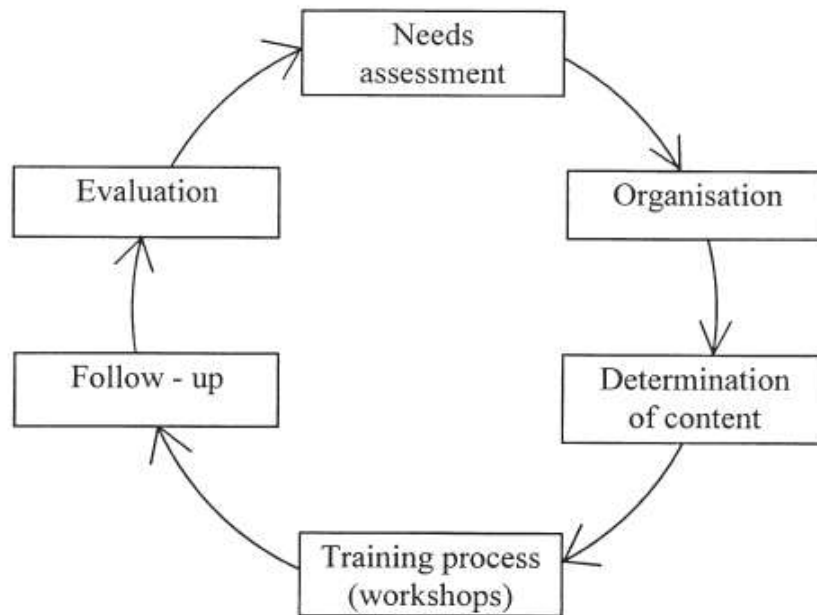
Considering a clear teacher career pathway is essential to overcome gaps in the system of professional development for teachers linked to rewarding system and student learning outcome, the MoEYS adopted teacher career pathway framework in June 2018. Teacher career pathway framework (TCP) is supporting the implementation of TPAP with regard to the improvement of teacher professional development toward attracting and retaining competent persons into teaching profession. TCP is expected to have positive impacts on the current professional development system, teacher appraisal and reward system. As mentioned in the TPAP, "... there is currently little incentive for teachers to participate in INSET because professional development is not linked to promotion or a longer-term vision for teacher career growth. It remains ad-hoc, inconsistent, and unmonitored" (p.7). TCP constructs a systematic teacher professional development and teacher appraisal linked to reward system, which improves instructional practices in the school and the student learning outcomes.

The 2018 teacher career pathways develop three career paths for teachers such as teacher career pathway, school management career pathways and education specialist pathways. The teaching pathway is intended for teachers who aspire to become expert teachers and remain within classrooms. The leadership track is for those who seek school leadership positions. The specialist pathway is for those who develop deep knowledge and skills in specific disciplines such as curriculum development, assessment, counselling and evaluation in the school and in the central level of MoEYS. Each level has a range of coordinated experiences and training. Teachers can move between the pathways as long as they meet the requisite requirements mentioned in the TCP framework.

## **2.2 Effective professional development**

Professional development refers to a variety of educational experiences related to an individual's work and is designed to improve practices and outcomes of the students (Patton, Parker, & Tannehill, 2015). Professional development must be able to bring about change in teachers' practices and in the classroom. Whatever the contexts and the various models of CPD, the literature shows that an effective professional development encompasses six dimensions such as (1) need

assessment, (2) Organization, (3) determination of content, (4) training process, (5) Follow up and (6) Evaluation as shown in the below figure.



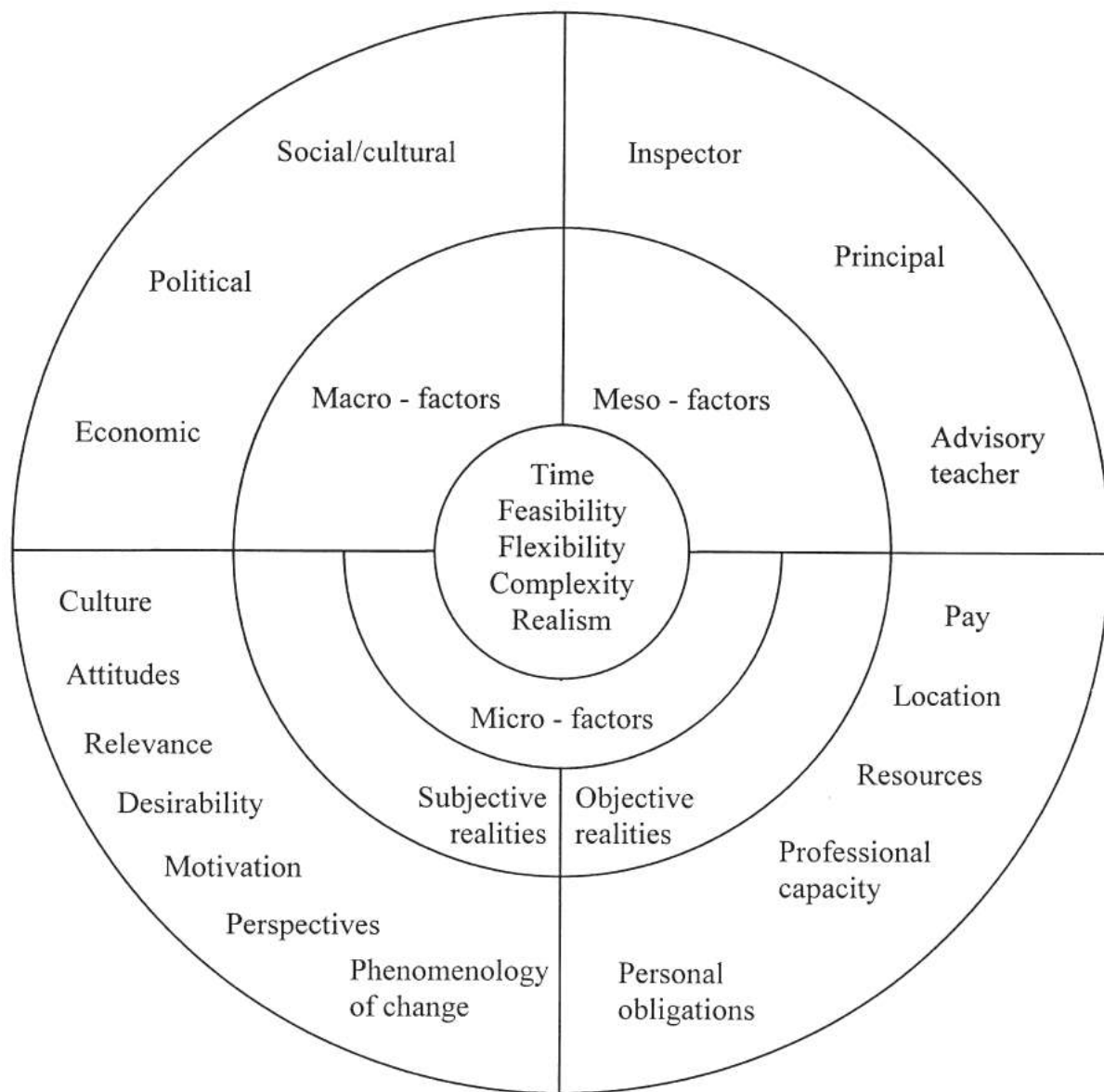
**Figure 5: INSET Strategies Model for INSET programs** (O'Sullivan, 2001, p. 3)

Adult learning takes place only when teachers can see the goal of what they do, when learning is focused on problems and not on content, when they bring significant knowledge to learning process, when learning includes experiences that can upset old beliefs and generate meaningful change and they develop a growing interest in a particular subject (Beavers, 2009). It is therefore important that these six dimensions of PD are underpinned by eight core features to allow teachers to develop as active learners who are able to improve learning of the students. The core features of PD proposed by Kevin & Deborah (Patton et al., 2015) comprise of:

- Core feature 1: Professional Development is based on teachers' needs and interests: the need assessment is to be conducted to address teachers' most training needs taken into the account of the issues faced by teacher and students. Only when PD addresses the needs of the teachers that PD can bring the knowledge, skills, values and belief to teachers. Based on the need assessment result, the content of the training is prepared.

- Core Feature 2: Professional Development Acknowledges That Learning Is a Social Process: Adult learning takes place when it builds the relationship among teachers rather than one individual who is isolated. Rather than imposed with the formal structure or arrangement, PD should be organized in a way that teachers can work together.
- Core Feature 3: Professional Development Includes Collaborative Opportunities Within Learning Communities of Educators: Teachers learn from each other in the professional communities which is beyond their classrooms and schools.
- Core Feature 4: Professional Development Is Ongoing and Sustained: change of teacher practices and classroom is not happened a day. PD must be continuous process that allow teachers practices the change in the classroom, follow-up and bring the experiences back for discussion and reflection in the learning group.
- Core Feature 5: Professional Development Treats Teachers as Active Learners: Active learners learn through reflections, inquiry, appreciation and constructing their own meaning and understanding.
- Core Feature 6: Professional Development Enhances Teachers' Pedagogical Skills and Content Knowledge
- Core Feature 7: Professional Development Is Facilitated with Care: Teachers needed to be heard rather than imposed, appreciated rather than blamed.
- Core Feature 8: Professional Development Focuses on Improving Learning Outcomes for Students: PD must improve student achievements. PD must be designed to meet the students learning outcome in different context rather than too much focus on the new teaching methodologies.

The implementation process of CPD is complex and involves many factors which encompassed macro-meso- and micro-implementation factors (national, regional and local implementation factors).



**Figure: Implementation factors** (O'Sullivan, 2001, p. 6)

### **2.3 Models of teacher professional development**

The OECD (OECD, 1998) identifies four modes of CPD delivery. The first model is the provision of TPD providing by “teacher centers,” publicly funded institutions that provide training for individual teachers. These are common in Japan, Germany, Sweden and Israel. These centers tend to use a cascading model of teacher development. In Israel, teacher centers called PISA centers support a number of schools under their jurisdictions.

The second model is using third party external providers, or independent providers of teacher training services, such as universities.

The third model is the self-organized school development model. In these cases, the provider is the school itself, such as teachers working together in groups in a single school. In Singapore, to address the needs of the students and teachers, schools may organize their own customised professional development. They may work with the National Institute of Education, the Ministry of Education, or the Academy of Singapore Teachers to design and implement these customised professional development sessions within their schools. For example, a school which wishes to develop its Art teachers may approach the Art Master Teachers in AST to provide customised and more sustained professional development for its Art teachers. Schools may also approach NIE for workshops for their teachers, such as Research for Educators, which is designed to help teachers with no or very little research experience develop critical inquiry skills. Schools may also nominate teachers to attend the various local conferences organized by MOE and NIE, such as the biennial Redesigning Pedagogy International Conference by NIE. AST supports the teachers’ attendance at conferences by sponsoring 1 teacher per school, up to a stipulated maximum number of teachers for each conference. Schools may also approach their clusters to provide funding for their teachers to attend conferences.

The fourth is the model of networking and interschool collaboration. In this mode, teachers share experiences and resources with each other within and among schools (OECD, 1998). It is usually in the form of cluster based professional development meaning groups of teachers from different schools meet regularly to train each other and share their experiences.

The fifth model is professional learning communities (PLC) enable teachers to collaborate and upgrade their skills to enhance student learning. DuFour et. al., (2006) views PLCs as groups of educators committed to working and learning collaboratively in ongoing processes of collective

inquiry into best practices and current reality; action orientation in order to achieve better results for the students they serve; a commitment to continuous improvement; and a focus on results to gather ongoing artefacts of learning.

The foundation of professional learning communities is the development of teachers' cooperative work which focuses on improving the abilities of dealing with complicated work of teachers although helping students narrows the gaps of learning to achieve their learning goals. DuFour (DuFour, Burnette, Eaker, & Karhanek, 2004) views that the PLC should focus on attention to learning not teaching, cooperative working only to get individuals' achievements.

According to DuFour, the professional learning community should carry out the basic principles: shared vision, mission, values, and aims; learning is the primer of the cooperative teams; the cooperative team needs practical and realistic traits; the action orientation should be clear for members to achieve in application; duties for sustained development of learning teams; and the learning teams should have the outcome orientation.

Richard DuFour raises the "Three Big Ideas" of stating the topic of "Professional Learning Community". The first big idea proposed that the prime task is to help students and to ensure they learn. All members in learning communities should understand about student learning: communicating teachers' wants to students, the ways of knowing whether students learn or not, and the methods of solving students' difficulties in the learning process. The second "Big Idea" is culture collaboration. In the PLCs, the members including teachers and staff need work cooperatively to build and develop the cultural systems in their organizations. The third "Big Idea" is results focus. In schools, the common work for teachers is teaching knowledge to students to make students get developments by working together. Usually, according to students' current learning situations, teacher groups should analyze the learning levels to formulate the specific plans to attain their designed goal for make the progress periodically. Teachers in cooperative work groups must change their goals to raise students' percentage or decrease student failure.

In Singapore, the Ministry of Education in Singapore introduced professional learning communities (PLC) to schools using 3 Big Ideas. It is believed that "teachers must lead their own professional development". To support schools in their implementation of PLCs, AST provides 3



Big Ideas as guiding principles and 4 Critical Questions for the learning teams to focus on during their PLC sessions (Academy of Singapore Teachers, 2012). The 3 Big Ideas are as follow: ensuring students learn, building a culture of collaboration, and focusing on student outcomes. The 4 critical questions reinforce the first Big Idea on ensuring student learning such as (1) what is it we expect students to learn? (2) how will we know when they have learned it? (3) how will we respond when they don't learn? (4) how will we respond when they already know it?

### 3. Research methodology

The study is conducted at five primary schools located in kampong Speu, Kampong Cham, Prey Veng, Siem Reap and Rattanakiri province. Among these five schools, there is one school whose teacher professional development supported by Save the Children. The below table illustrates names, location and the socioeconomic status of the schools. The research fieldwork was carried out from June to August 2018. The data were collected through key informant interview with officials from TTD, POE, DOE; semi-structured interview with school directors and deputy directors and focus group discussion with teachers.

**Table: Types of schools**

Provinces	School name	Location
Kampong Speu	Svay Char	Kong Pisei, Sdok, Sdok
Rattanakiri	Borey Kamkor Buon	Kachanh, Phum Buon
Prey Veng	Kampong Popil	Pea Reang
Kampong Cham	Angkor Ban	Kang Meas
Siem Reap	Chambak Hae	Pouk commune, Pouk district

At schools, school directors and deputy school directors were invited for interview to understand the professional development available at school, the role of school directors in supporting the teacher professional development at their schools and their experiences in leading and guiding the teacher professional development. In conducting the interview, researchers used the appreciative inquiry (AI) to understand the best practices of professional development at school. Rather than

asking about "what is going wrong", the interviews were directed to "what is going well", "the potential and the assets" about the professional development at school. The interviews were also in form of constructionism that constructs the meaning from participants' experiences.

Teachers were interviewed as group about their experiences and perceptions on professional development available at school, the enabling conditions for them to learn, the role of school directors and the outcome of professional development on student's learning outcome.

Activities of technical meetings were observed to understand the process, the content of the professional development and what is an effective approach.

Officials from Teacher Training Department, Primary Education Department, Curriculum Development Department, Provincial office of education and District office of education were interviewed to understand their role in providing professional development, the modalities of professional development, the professional development materials, their supports to the school in providing professional development at school. More importantly, the interviews focused on the interaction between these actors in providing professional development at school.

Policy documents, regulations, CPD programs and CPD materials are also examined to understand the content, complexity and the relevance of CPD to the teaching and learning in the classroom.

The school artifacts are also examined such as school profile, school development plan, documents related to professional development from PoE, school professional development plan, reports of technical meetings, inspection report of DTMT and any artifacts related to CPD if any.

## **4. Teacher professional development model in Cambodia: Four case studies**

### **4.1 Teacher professional development in cooperation school provided by VVOB**

Teacher professional development in cooperation school (Sala Thnal) is slightly different from regular schools because teachers in cooperation schools have more chances to receive INSET trainings. It is in the case of Veal Vong Primary school which is one of the cooperation schools of Kampong Cham PTTC. Veal Vong Primary School's director indicated that her school is a cooperation school; thus, getting opportunities to be trained on any methods that have been applying in PTTC to make it consistent between teacher preparation program and real classroom. For example, the cooperation school was just provided training in 8-week period on every Thursday about IBL approach by a PTTC trainer.

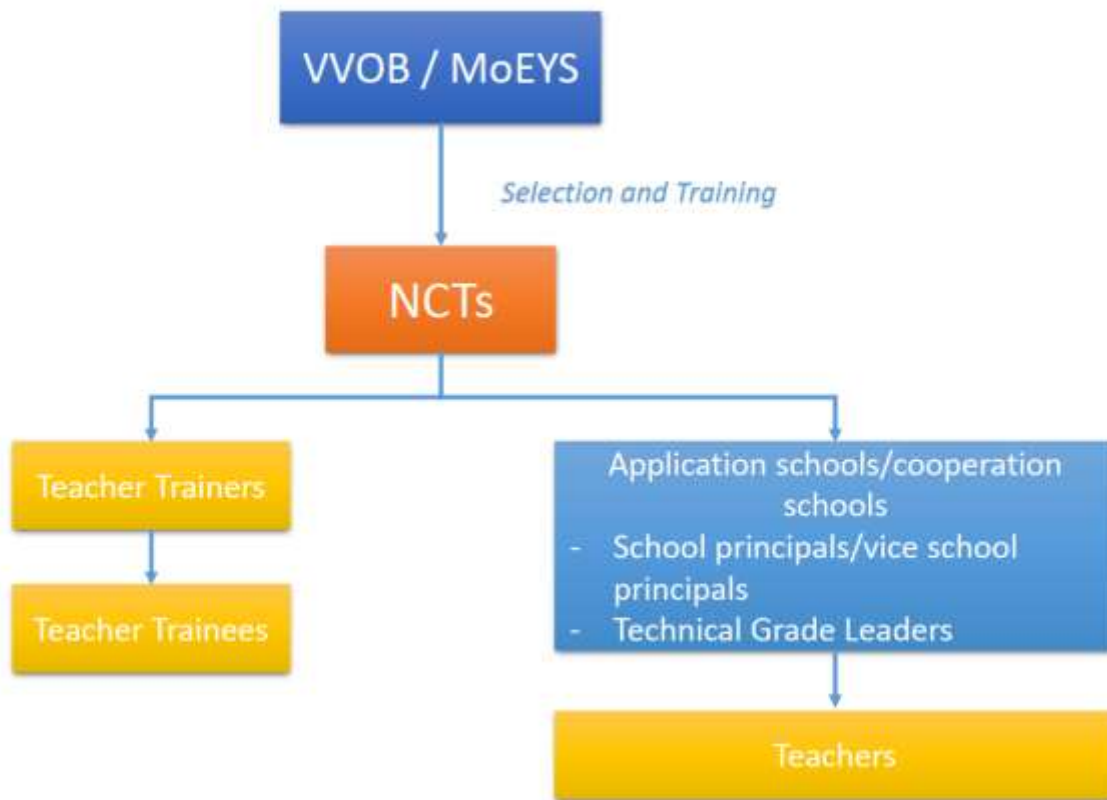
Cooperation school's teacher professional development is usually provided by VVOB, and it is through cascade model. The cascade approach transmits the knowledge or information from the top (from experts and specialist) to the lowest group of teachers (Ono & Ferreira, 2010) which is called "Training of Trainers, ToT". The training is conducted at several levels by trainers drawn from a level above. Using the cascade model, VVOB train the national core trainers (NCTs) who will in turn train the teacher trainers from 18 Regional Teacher Training Centers and Provincial Teacher Training Centers and Technical grade leader (TGL), vice school principal in charge of teaching technique from application and cooperation schools.

Before 2016, the Teacher Training Department had a sole authority to select the NCTs. VVOB simply requested the TTD to provide the names of NCTs to work with VVOB and the TTD could nominate anyone to be NCTs in their own networks. So far, the NCTs often have been nominated among officials from TTD, Department Primary Education Department, Secondary Education Department, from or PTTCs, RTTCs or RTTCs. The TTD always nominated MoEYS officials who have never taught in the classroom and were not committed. So the quality of training is always complained by the participants. It is for this reason, since 2016, VVOB has been selecting the NCTs by themselves through a competition process. The TTD simply facilitates the process such as the disclosure of the information about the recruitment of NCTs. The selection is based on

fair, transparent and competitive principles (i.e. submission of the application, shortlist, interviews). The selected NTCs are diversified from both officials from central level and from national levels like teacher training centers and more qualified and committed for instance a national core trainer from PTTC Kampot were admired for her ability and commitment in delivering the trainings.

The NCTs are trained by the experts related to thematic content of the trainings for cascading to the teachers. From 2016-2020, the training provided by VVOB focuses on mathematics, classroom management, leadership. The key focus of training is how to produce and use teaching aids in mathematics and sciences rather than the content of mathematics per se. The training is also a form of learning. Often, the NCTs with support from experts get the training on teaching method of mathematics and sciences and the materials development. Materials development is involved by different stakeholders such as experts, NCTs and teachers who bring expertise from different perspectives and learn from each other through the process.

The advantage of the cascade model is that the approach can be reached by many participants in a short time and it is cost-effective. Although the cascade model is instrumental to upgrade the skill and knowledge of trainers, there are a number of setbacks of the model. The first setback of this model is the multiplication of the knowledge and skills to teachers after the ToT is not productive. Crucial information may be lost or misinterpreted at each step of the cascade process. Those who get the trainings do not relay the training to lower level. The second set back is that the model is more focused on skill and knowledge development than values in teaching and learning (Kennedy, 2005).



**Figure 6: Cascade model of CPD provided by VVOB**

## **4.2 Professional development model at normal primary schools: Technical meetings**

### **4.2.1 Four schools visited**

There are four schools visited to see how teacher professional development take place at these schools.

#### **1- Chambak Hae Primary School**

Chambak Hae Primary School is situated in Chambak He village, Pouk Commune, Pouk district, Siem Reap province. It is one of the 5 schools in Pouk commune’s school clustering<sup>1</sup>, called Teabanh Komru School Cluster (see figure 1). Normally, local cluster committee located within the core school and school principal of the core school is the cluster director. However, even though Chambak Hae is just a satellite school, its director was appointed to be the director of the school cluster since the previous cluster director retired.

**Figure 7. School cluster system**



The school has a library, and there are 4 buildings, accommodate 13 classrooms. In average, class size is 35. Total number of teachers is 12 (including 3 kindergarten teachers), and total number of students is 417. Number of teachers in the school is sufficient, paralleled with the number of students. There is no teacher shortage; thus, the school runs only one shift. Chambak Hae primary school received “Developed level” in Child Friendly School (CFS) status, which is the top level.

<sup>1</sup> School clustering was introduced by the MoEYS as a major development strategy to improve the quality of education in primary schools, maximize resource utilization, and promote decentralization. It was officially recognized as a national strategy by the MoEYS in 1995.

Number of staff		#of Students		Staff Qualification		
Teaching	Non-teaching	Male	Female	12+2	Bachelor Degree	Master
11 (including 3 Kindergarten)	4	202	215	11	3	1
Total=15 (11 female)		417				

**Table: Number of teachers and Students 2017-2018**

Grade	# Class	Students	Teachers
		Total	Total
Kindergarten	3	117	3
1	1	48	1
2	2	63	2
3	2	76	2
4	1	42	1
5	1	38	1
6	1	33	1
<b>Total</b>	<b>11</b>	<b>417</b>	<b>11</b>

## **2- Svay Char Primary School**

Svay Char Primary School was established in 1979 by people in the community and situated in pagoda. Svay Char primary school is located in Trapeang Ampil village, Moha Rusey commune, Kong Pisei district and Kampong Speu province. The school has 15 teachers who are 14 primary teachers and one female kindergarten teacher (see Table 1). In academic year 2017-2018, the total number of students is 584. Last year, passing rate and repetition rate were 98.8% and 1.2% respectively (repetition rate was high in 6th grade, 6.41%).

**Table: Number of teachers and Students 2017-2018**

Grade	# Class	Students		Teachers	
		Total	Female	Total	Female
Kindergarten	2	55	24	1	1
1	2	80	29	2	0
2	2	79	32	2	0
3	3	127	48	2	1
4	2	97	51	3	0
5	2	75	29	2	2
6	3	126	49	3	0
<b>Total</b>	<b>16</b>	<b>639</b>	<b>262</b>	<b>15</b>	<b>4</b>

- 3- **Borey Kamakor Buoun Primary School** According to the school statistic in 2017-2018, there are 15 teachers, including 11 females, and there are 474 pupils, including 225 female enrolling at the school. The school is divided into 2 levels: pre-primary and primary school. There is one teacher obtaining a bachelor's degree certificate and 2 teachers are pursuing bachelor degree. In cluster system, Borey Kamakor Boun is a core school and four satellite schools such as Borey Kamkor Moy, Borey Kamkor Pi, Borey Kamkor Bey, Borey Kamkor Bram.

**4- Kampong Popil Primary School**

Kampong Popil Primary School is one of the model and cluster schools in Prey Veng province. The school is led by one school director, one school deputy director and supportive staff and teachers in total 27. In Kampong Popil School cluster, there are 5 schools such as Kampong Popil primary school as core school, and other 4 satellite schools.

**4.2.2 Actors involving in Technical Meeting process at school level and cluster level**

At school level, on-site professional development is conducted under the form of technical meeting (TM), "*Prochum Pachektes*". TM is at school and cluster level. The main objective of TM is to provide regular professional development and improve the relationship among teachers.



In the meeting, teachers are supposed to discuss the teaching issues, reflect their teaching experiences and exchange ideas on teaching and learning. There are actors from national level to sub national level involving in the TM process.

- **Ministry of Education, Youth and Sport**

At the beginning of every academic year in October, the MoEYS (the Primary Education Department) issues a guideline on the school operation plan consisting of the regulations related to TM. Very brief information regarding the dates, the agenda of TM and the incentive. The guideline is then disseminated to PoE and DoE which will relay the information to the primary schools. For academic year 2017-2018, the MoEYS will provide budget support to TM for seven times, from January to August except April.

- **Provincial Office of Education (POE)**

Upon obtaining the guideline from the MoEYS, the POE issues a notification on the organization of TM to the schools in their jurisdiction. PoE plays very minimal role in PD at school. In contrast to its name and mandate, the Teacher Training Office of PoE does administrative works and does not have provide any trainings to the schools. The Primary Education Office of PoE is likely to provide and monitor in-service training to school but so far, they also focus on the administrative work such as the notification of TM and rarely monitor the schools due to lack of the funds.

- **District Office of Education (DoE)**

In 2007, District Training and Monitoring Teams (DTMTs) were created to ensure that schools are complied with Child Friendly School Policy. DTMTs are comprised of district officials and some principals and/or deputies. DTMTs are provided with evaluation checklists and criteria to enable them to assess how schools are performing against each of the CFS dimensions, including Dimension 2 with its focus on teaching and learning<sup>2</sup>. Within the framework of Dimension 2, DTMTs are supposed to provide training in the new child-centered methodology, teaching techniques, how to write good lesson plans, producing teaching materials; however, the emphasis

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<sup>2</sup> Six dimensions of Cambodian Child Friendly School are: dimension 1 All children have access to schooling (schools are inclusive), dimension 2 Effective teaching and learning, Dimension 3 Health, safety, and protection of children, Dimension 4 Gender Responsiveness, Dimension 5 The participation of children, families and communities in the running of their local schools and Dimension 6 The national education system supports and encourages schools to become more child friendly. (the 2007 Child Friendly School policy)

of DTMTs work is on school management, classroom environment and inspection rather than on the practices of teaching. Furthermore, an official explained that visits only take place one or two times a year and that time was taken up with checking lists to see if previous recommendations had been implemented due to the lack of funds for the activities. The very rare inspection or visit of DTMTs is intended to only teachers who do not pay attention in their teaching.

As one of DTMTs states:

*In policy POE inspect in 2<sup>nd</sup> semester, DOE in 1<sup>st</sup> and 2<sup>nd</sup>. But in practice, DOE inspect school once a year in 2018. We can't inspect all teachers, only a class per school. We tell teacher one day in advance. We normally select teachers who aren't really paid attention in teaching. We look at lesson plan, administrative book, hygiene, attendance, and teaching procedure. We saw some weakness that teachers rarely have teaching materials or teaching aids, no lesson plan for every lesson or not at all. We also detected some of them have wrong spellings.*

*We have 2 different checklists one for school and the one for teacher teaching (looking at lesson plan, teaching/ student activities, and providing feedback). Some frequent feedbacks I gave are:*

- 1- Teacher can't facilitate students' activities: during discussion teachers don't facilitate, and students don't involve.*
- 2- Lesson plan: we look whether teacher has lesson plan, and what steps are taken and how? Lesson plan is important for teacher to keep for themselves as document and keep track what they have taught and prevent them from missing any steps or forget any points, and help teacher to state lesson objectives clearly and achieve them.*

In addition to DTMT's task, DoEs conducted a monthly meeting with school principals and/or vice principals. The meeting could last between 4 to 6 hours at one of the schools in every month within the district. Very often, there are odd agenda items added into the meeting agenda for example, NGOs working closely with school such as Room to Read who present their project activities and/or sharing information to schools. While the common agenda are including

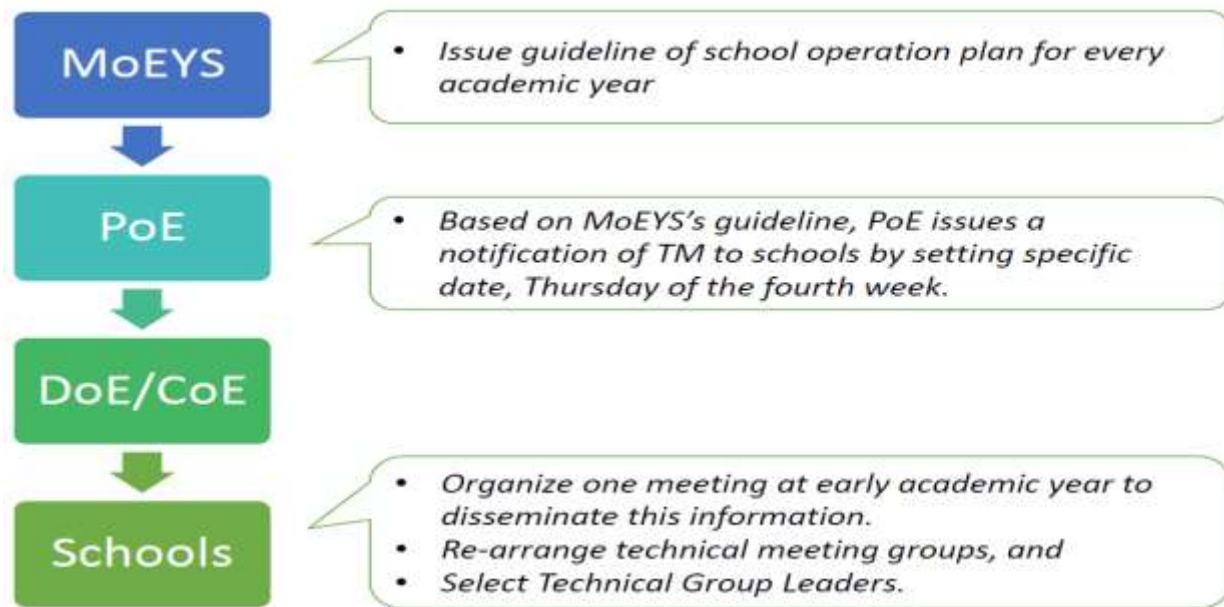
administration work, financial issues, school development, and learning and teaching achievement, there are some technical discussions conducted by DTMT officials.

- **Schools**

Based on the timetable determined by the PoE, the school shall at least organize TM on Thursday seven times per year. Teachers are offered 12000 Riel per technical meeting and refreshment payment is provided to the organizer. The purpose of TM is to share ideas on teaching method and content knowledge including the best practices and difficulties in their teaching. In TM, teacher will teach or demonstrate or resolve educational issues to other teachers on a particular subject which is usually identified based on the class observation of the school. In TM, the school principal also shares the information, for example guideline from the national level.

Although Thursday technical meetings officially occur once a month, some schools can make it at least twice a month, led by the principal who shares information, raises issues to discuss and provides guidance to remedy problems. These meetings are the only formal channel for discussion amongst staff. They also afforded opportunities for the principal and senior teachers, if they had attended a workshop, to share experience and knowledge with teachers during the monthly meeting. However, it was recognized that while some schools do this well, others do not.

The TM can be also conducted at school cluster levels. The school cluster system piloted in 1992 was expanded to all provinces in 1995. The cluster school was composed of five to six geographically proximal schools among which one was a core schools and others were satellite schools. The cluster school system was a mechanism for coordinating central government support, strengthening school management, managing scarce school resources, increasing capacity of local staff, and enhancing teaching and learning. The funds for school development were directly transferred to schools via clusters upon the submission of the cluster's plan to the MoEYS.



**Figure 8: The flow of TM organization order from MoEYS to schools**

#### 4.2.3 Process of TM at school/cluster school

The TMs is usually organized on the last Thursday of every month in one of the schools in the cluster, and all other schools are closed for the entire day. It lasts about the three hours usually from 7 to 10 am. The venue of the meeting is changed as the schools in the cluster rotate every month to host the meeting. TM can be presided over by head of school cluster or a member of DOE/ POE (if they attend). Mostly, DOE can make it to the meeting more often than POE staff. A teacher said “this academic year, DTMT have joined 2 times, while POE have joined once”. DOE’s role mainly acts as the facilitator in the meeting, not to teach. A DOE said “we come just to show our presence so that teachers and directors feel more warm support, and if we have any new information we can disseminate to them.” A teacher said “DOE sometimes gives feedback on wrong spelling, or provide MOEYS guideline or recommendation.”

Firstly, the meeting starts off with head of cluster, or DOE pronounce welcoming speech, the objectives, and agendas of the meeting in the big group (all teachers from grade1-6 join). In all of the four targeted school of the study, there were always four main activities: 1) teaching

demonstration, 2) reflection and feedback, 3) policy dissemination, and 4) other item that is open discussion or raising issues of concern such as those related to teaching problems or student learning issues.

Secondly, after the welcoming speech, the big group is dismissed, and teachers are separated into different classes based on their teaching grade (1-6) to engage in teaching demonstration. One teacher from each grade (grade 1-6) from the host school are expected to do teaching demonstration. There are around 20 students in the class, and around 10 teachers observing the teaching. The host school teachers do the class demonstration for 40 minutes. Thirdly, after the teaching finish, it comes the discussion session where all the teachers wrap up and report on weakness and strength of the host teacher's teaching. They provide constructive feedbacks and give chance to the host teacher to express agreement or disagreement towards the feedbacks.

In each session of demonstration class, there is a person responsible for minute taking/ or doing report. However, there is no observation/evaluation form used. They mostly identified weakness and strength of the teaching. A teacher said "It is difficult to spot weakness in teaching demonstration because we have many year teaching experiences and we have taught the same things a lot."

After the feedback session, they set out the topics for the next teaching demonstration, and it depends on teachers requested. For example, a teacher wants the next host school to do teaching demonstration on Khmer lesson 1; if there is no any request, the host school can determine by themselves, but they cannot pick the lesson that they already taught in class to do the demonstration. A teacher said "in primary school we focus mostly on math and Khmer subject while questions related to science or social studies can be asked in the discussion session."

Lastly, after that group discussion, they assemble in the big group to report on each class demonstration what they have achieved and what they agreed to do for the next meeting. The head of school cluster or director of the host school can wrap up, set the next meeting agendas, and close the meeting.

#### **4.2.4 Method of TMs - Demonstration class**

Demonstration class is the core activity of the technical meetings. Demonstration class is imitated what is taught real class. Assuming that teachers are pupils and the demonstrated teacher plays a role like teacher. Sometimes, real students attend the demonstration class. Demonstration Class takes 45 minutes. Demonstration class is an essential teaching method use with both large and small groups to support teachers' skills at any grade. In demonstration class, teachers do not only demonstrate learning concept to other teachers, they can also help to improve their own teaching strategies. Good teachers or teachers with comprehensive experiences can share their knowledge to help other teachers.

In demonstration class process, teachers always followed the following five steps: warming up the class, reviewing previous lesson, teaching new lesson, strengthening students' knowledge and providing homework. It is perceived by teachers that these five steps as student-centered approach to teaching. Further, recognizing that students had challenges with reading and writing and mathematics, Khmer language and mathematics subject were often selected for teaching demonstration in TM. After completing demonstration class, teachers are allowed to give any comments, suggestions and evaluations to find strengthen and weakness in the teaching process.

#### **4.2.5 Demonstration class observed**

The following is a case study of demonstration class in Prey Veng province. This primary school is a school cluster with 5 satellite schools that in total consists of 50 teachers among them are 26 female teachers. The demonstration class started from 8:30am to 9:15am. The class was participated by deputy director of DOE.

The demonstration class was divided into 2 groups, mathematics and English. Mathematics class was filled with students from grade 3 and the observation teachers from grade 1, 2 and 3. At the same time, English class consisted of the students from grade 5 and the observation teachers from grade 4, 5 and 6. In each class, there is a person responsible for minute taking or doing report. However, there is no observation or evaluation form used. They mostly identified weakness and strength of the teaching.

Mathematics demonstration class had 23 observation teachers (15 Male and 8 Female). The teacher who volunteered to do the teaching demonstration was a teacher in grade 3. There were 20 students in this observation class and it took around 45 minutes. His technical materials are:

1. Watermelon
2. 4 fractions of Circle wood with different colors
3. Scissors
4. Square paper
5. Color Chalk
6. Straw

Before starting lesson, he gave an example to his students, “A mother has a watermelon. She wants to eat watermelon. Unfortunately, her son is not at home. She cut the watermelon into parts. She ate a half and keep a half for her son”. Then he let his students to guess the title of the lesson. Many students said the title of the lesson is “Proportion”.

Teacher gave the other example. He showed the circle wood with four fractions. He took one fraction out then he asked his students what is the proportion that he took. The students answered  $\frac{1}{4}$  proportion. Then he wrote the answer on the whiteboard.

Second example, teacher gave students with square papers. Then teacher let students folding paper in 4 parts. Then he gave chalk colors to students then coloring  $\frac{1}{4}$ . After that he asked what the proportion of coloring fraction is. Students answered  $\frac{1}{4}$ . Then he wrote students answer on the whiteboard.

Third example, teacher gave 8 straws to each students then he told them to pick 3 straws with the other hand. Then, he asked students what was the proportion of taking 3 from 8? Students answered  $\frac{3}{8}$ . Then teacher wrote the answer on the whiteboard.

After teacher finished examples, he told students to find the definition of proportion by themselves. Teacher summarized the lesson to students on what they had learnt about proportion. Then teacher gave some homework and advices them to be good person and be safe when they travel back home.

All participants from the two demonstration classes came back together after 1 hour. Then the school cluster director told the observing teachers to raise up their evaluation of the classes. The results are as below:

Observation Classes	Strengths	Weakness
Mathematics	<ul style="list-style-type: none"> <li>• Real technical materials</li> <li>• Technical material created by teacher</li> <li>• Real examples</li> <li>• Teacher was brave and confident</li> <li>• Divided groups</li> <li>• Students were happy to learn</li> <li>• Good class management</li> <li>• Using students center approach</li> <li>• Praise students when they did correct answer</li> </ul>	<ul style="list-style-type: none"> <li>• Didn't tell students clearly about the lesson objective</li> <li>• Lacking knowledge to identify the flow of lesson</li> </ul>
English	<ul style="list-style-type: none"> <li>• Real technical materials</li> <li>• Had clear steps in teaching</li> <li>• Real examples</li> <li>• Divided groups</li> <li>• Praise students when they did correct answer</li> </ul>	<ul style="list-style-type: none"> <li>• Giving unclear instruction</li> <li>• Writing clear letters and vowels</li> </ul>

After completing the demonstration class, there were some corrections and advices from observation teachers. Observation teachers shared some other new methods to make students easy to understand the fraction. Then both mathematics and English teachers accepted their weak points and they would change it in the future for their student's result.



#### **4.2.6 TM follow up and monitoring**

After technical meeting, some teachers are reported to practice what they learnt in the meeting, and apply with their students. They reported their achievement in the next cluster meeting. For example, Deputy director stated that “a grade 1 teacher had difficulty in classroom management, her students don’t listen, so others give her suggestion that whenever they are noisy she should ask them to stand up and clap their hands, tell them stories, or play some games, do anything that engage students.” Next meeting, she reported the suggestions were effective.

However, there is no any systematic follow up on teachers if they have practice what they have learnt in the technical meeting.

#### **4.2.7 Advantages of Demonstration Class**

Based on focus group discussion with teachers, demonstration class have been found beneficial for teachers in different ways ranging from acquiring knowledge and application of new instructional methods, writing effective lesson plan, creating and using teaching aids, discipline students and classroom management, and helping each other solving any classroom problems

Firstly, teachers can share and learn from each other about different teaching methods and apply in classroom to suit their students’ contexts. A teacher said she shared EGMA teaching method, with other teachers in the cluster meeting. The method used is student-center, IBL approach. She said “Some teachers did not see the advantages of the new method but when I tried to explain them, they began to understand and think it is good.” She thinks technical meeting is a good chance for teachers who did not have chance to attend trainings to learn from others. Some teachers mentioned how they got the ideas from cluster technical meeting and apply in real classroom. A teacher in grade 3 said she changed her methods to teach science, for example, subject related foods. Instead of telling them the information, she imposed questions to students to raise their curiosity. She asked “How many categories of food (protection, energy, building)? Water lilies is in which food category? Before teaching, she copied picture and color, and use real items (lily flowers) to show to students. She agreed students learn better with teaching aids. Most teachers are happy to learn and apply what they learn from peers when they know the theories behind each method; for example, IBL is to raise student critical thinking and creativity.

Also, teachers can strengthen their knowledge of how to produce effective lesson plans that based on the coherent steps, determine lesson objectives and how to achieve them. Addition to that, technical meeting acts as a venue for teachers to come together and produce teaching aids or materials to help students better achieve learning objectives. Teachers can guide each other and exchange raw materials to produce teaching materials. A teacher said “Some teachers do not know how to use teaching aids or when to use it; some ended up not using them at all. Teaching with material can attract students and make them happy in class. Students will not be absent often when they enjoy the class.”

Moreover, teachers reported to have improved their classroom management skills. They can learn from other teachers who have good classroom management on how to deal with students who are misbehave, loud, or disruptive during study time. They also learn how to motivate students in class and make learning fun, and how to behave themselves as a good teacher while observing in demonstration class. Therefore, technical meeting is the important platform for teachers to share and exchange ideas to enhance mostly their general pedagogical knowledge.

#### **4.3 Professional development model at Angkor Ban Primary School, Kangmeas District, Kampong Cham Province**

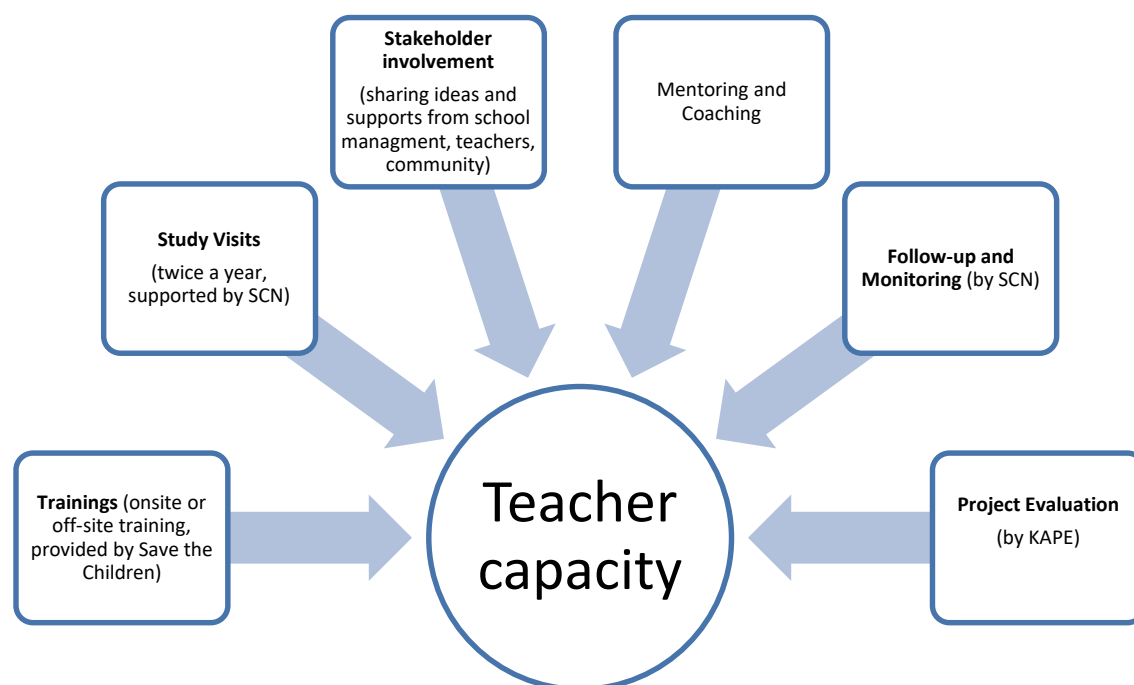
Angkor ban primary school consists of kindergarten and primary school level. It runs two shift. There are 11 classes. The average class size is 30. The school have 17 teachers, 13 of which are female. Teacher capacity in the school varies. Most are having professional qualification in Cadre C, except only 2 in Cadre B. However, there are those completed BA, and those pursuing BA at some universities in the province.).

The school will launch New Generation School (NGS) program in academic year 2018-2019. As of now there are no teacher preparation program for NGS yet.

For the last 2 decades, Angkor ban primary school have been supported by Save the Children (SCN) for 2 development programs: the first one was since 1998-2002, and second one was from August 2013 till present day, the 2<sup>nd</sup> project called “I’m learning”. Before selecting the school,

SCN have conducted interview for 3 times with the schools and stakeholders to test their commitment.

Teacher capacity in the school are enhanced based on several factors such as the regular training provided by SCN, study visits, stakeholder involvement, mentoring and evaluation.



**Figure 9:** PD modality used in Angkor Ban Primary School supported by NGOs

#### 4.3.1 Training

To address the knowledge and skills gap among teachers and strengthen their capacity, teachers in Angkor ban primary school are provided trainings on regular basis. School director claimed that the NGO have provided a lot of training every year, and all teachers are allowed to join the trainings including kindergarten level. The trainings can take place either at school or at Kampong Cham PTTC; the trainers are from PTTC. A training course lasts for 2 days per time, and it is conducted a few times in the academic year. Teachers usually receive trainings on lesson planning, teaching methods, material creation, questioning methods, and life skills. The trainings aim to instill active learning in the classroom.

#### 4.3.2 Study visit

Another form of professional development in the school is study visit. Director mentioned it is the eye-opening experiences for teachers and they can learn better by exposing to the innovative environment directly. By joining study visit supported by Save the Children, teachers can learn from other schools' experiences and best practice. They can see other schools' improvement and teaching activities, then reflect and update their knowledge. The study visit is conducted twice a year (2 days per time) at schools in the province or outside the province. All teachers have the opportunity to join.

#### 4.3.3 Exchange ideas/experience from all stakeholders

Stakeholders in school encompass school leaders, teachers, students, parents and other member of the community. Besides formal trainings and study visits, there are other considerable dimensions that can influence teacher capacity that emerge from the relationship between teacher-teacher, teacher-parents, teacher-principal, and principal-community. Director said "Save the children, particularly this I'm learning project, helped our school to understand the key stakeholders' responsibilities to develop the school, especially importance of community involvement. Before we didn't know that."

**Teacher-teacher:** Teacher capacity can be enhanced by having other teachers (who are more successful) to share experience on teaching methods, classroom management, or techniques to help slow learner. The school have allocated little bit of time during monthly meeting for teachers to share. It is either by doing teaching demonstration or raising questions and solutions to classroom issues. Teachers informally help each other, through informal dialog. Director said "before there were only 7 classes; one class per level. Therefore, there are no TGLs responsible to help others, we just asked the one who seemed to be good to share."

**Teachers-community:** Teacher and parents have the opportunities to meet up and talk about their child study, and school facilities. Director said "Previously, community didn't care about student attendance, and the availability of infrastructure/facilities in the school, but then we invited parents to classroom, so they can see how their children are taught." Parents could see if their children have enough study materials, or if their children are confident in doing presentation. Teachers also have chance to report to parents about the points their children needed to improve. Teacher use the result to reflect with parents. Teacher also can discuss the learning issues of students with their

parents, and can provide additional support to suit student's needs. If teacher has difficulty with slow learner; besides helping the student at school, teacher can ask their parents to teach their child more at home, and make sure they come to school regularly. Also teacher can also strengthen relationship with parents, know their students better and thus improve his/her classroom management skills.

**Principal- teachers:** teachers are asked to find out clearly what areas that teachers or their students are having difficulty. Then school director raise plans to help them, either by providing training, or seeing demonstration by experienced teachers.

Director also send non-teaching staff to help teachers: who can go help with teaching materials, stick, cut, pictures, and help guide them to use real items to teach. Mostly directors just verbally tell teachers to be helpful with one another, and share experiences, help those who are slow to catch up such as on lesson plan, or manage the students. Thus, there are some assistance to teachers from non-teaching staff such as director, deputy director, and secretary though not explicitly.

**School management and Community:** School director hold meeting with community to establish classroom committee, show objectives of the school, and how school should do, and ask community for help. Community can help with gathering school age children to enroll in school. Also, school management can show the school improvement plan and ask for additional budget in whatever form community can contribute. Director said we asked parents to have critical thinking, and analyze the importance of their investment on their children, opposing to other expenses.

#### **4.3.4 Follow up after training**

Save the children does the follow-ups after the trainings to see if teachers applied the knowledge learnt. Director said in average, they follow up 4 times a year. They follow up either by conducting test/assessment or classroom observation on teaching/learning activities to see the teaching methods used.

Director reported that in the first year they followed up more often on every aspect such as community involvement, school planning, school management and leadership, teacher capacity. However, in the last few years, they only follow up on subtle points such as teaching methods, teaching materials, questioning, and classroom management.

After the follow-up, they report the results to school management in monthly meeting, or meeting with all pilot schools, or at Save the children office. They provide feedback on the challenges and result, after that school directors make plans and incorporate into school improvement plans or AOP.

Mostly only the SCN do the follow up not the directors. Director said “We can’t follow up, we don’t have time, we have to do reports, budget and other subsector development, and also we don’t have experience.”

#### **4.3.5 Project evaluation**

The ‘I’m learning project’ seeks to provide concrete evidence that a holistic approach to school development can actually improve children’s learning through implementing the ‘Quality Learning Environment Framework (QLE) that include 4 dimension such as:

1. Emotional and psychological protection
2. Physical protection
3. Student-centered teaching approach and Active learning
4. Parent- community participation

At the end of the year, KAPE conducted an annual project evaluation and providing recommendations for next year implementation.

Director said “It is good that Save the Children hire KAPE staff to evaluate their work, and show general result in public.” After conducting quality of learning environment (QLE) assessment, in all the 5 intervention schools and every class, they are evaluated and compare their results (compare each grade in all schools).

It is conducted once a year, and the results are shown in general one-year achievement especially on Khmer and math. Schools can see other pilot schools’ achievement and reflect. The organization asked teacher to show commitment, and what plan should be implemented next. They show result and discuss. For example: why school quality is like this, maybe shortage of teacher (double shift), shortage of classroom, have mostly contract teachers? Or students come from other schools a lot and they can’t read?

In the case of Angkor ban primary school, after one-year project, the first QLE Result showed high achievement in Khmer and low in math; teachers had wakeup call. They reflected on their teaching methods, their weakness. School leader raised plan to SCN to train teachers. Then, the organization invited PTTC trainers specialized in particular areas to train, either inclusive training (at PTTC) or school based. There is school-based training if the problem is only at one school, or inclusive training if all intervention schools have the same problems (the training provided based on each grade).

Thus, the school gives total authority to the organization to assess the quality of teaching/learning. The evaluation comprised of student's evaluation, teacher's self-assessment, and QLE (school, teachers, and community). Teachers are happy that their ability are measured. They believe it is not for punishment but to help teachers.

#### **4.3.6 School leadership in Teacher's PD**

The school does not have CPD plan for teachers indicating which areas teachers need to be trained. Director only take note, and talk to SCN about teachers' challenges, and if they agree they will organize the training program, and make schedule for the school. School have its 2017-2018 AOP stated: training teacher more on lesson plan and material production and usage. There are also listed actions such as regular classroom observation, meeting, and teacher evaluation. However, the implementation is almost non-existed.

#### **4.3.7 Class observation**

Director said “our school used to have only 7 classes and only 1 class per grade thus teachers hold class and couldn't be TGLs. School directors can't observe classroom often. “We only collaborate with Save the children and see positive and weakness points they report. We did some checkup to confirm if the conditions are like what reported and make plan to change shortly. If teachers don't understand or can't implement well, for example, the new teaching methods, that have taught, we

directly help them or if there are more than 60% of teachers, we ask Save the Children to provide training to all.”

#### **4.3.8 Meetings**

The school have never joined cluster technical meeting on Thursday last week of the month since it was supported by Save the Children as they have tight schedule, and on Thursday is the meeting day with the organization. Plus, the director said the cluster technical meeting is not effective, the participants don't pay attention and they just come for attendance only.

The school only hold internal monthly meeting once a month, and there is no specific date. Director said “It is flexible. It depends on when we have urgent information to disseminate and we can include to talk about teacher capacity in the agenda. School cover all aspects such as authority, community, teachers, and parents, if we have lots of meeting it will waste student's study hours.”

#### **4.3.9 Committee for teacher evaluation**

The committee is created to evaluate teachers to upgrade salary scale very 2 years and solve other issues in school. Director said “Sometimes, POE/DOE come and when we have not evaluated the teachers, they just ask us to give random names.” They never come directly to overlook the committee. The committee mostly just has the name and director involve them to do some stuff related to guide teachers who lack of discipline and inactive (frequently late, absence or slow to submit tasks) to keep up with others.

School director continued “the monitoring and evaluation of teachers and give incentive to high performing teachers is the responsibility of POE/ DOE to evaluate and pick “good teachers”; but they never come and inspect. In the recent years, they come often because Save the Children are implementing the project and give per-diem to them to come.”



The school does not evaluate student and teacher performance. The director claimed “it is because there are assessments from SCN/KAPE already for semester 1 and 2, and they have proper tool, standardized, and expertise. We only keep record on passing rate, repetition rate, dropout rate for monthly and semester evaluation. We use Save the children assessment as the formal result to show others.”

#### **4.3.10 Implication/good practices from Angkor Ban primary schools**

The INSET training supported by SCN is relatively more effective because the trainings are provided to all teachers in the school, and schedule is flexible to the needs of teachers.

Director said “previous SCN project using cascade model (TOT). For example, if there is training on community, they select only head, for school management training they select only director; for teacher training they select only TGLs. They don’t have time to share, and teachers don’t listen.”

He continued “in our culture, teachers don’t listen to those who are close to them”. They invite all teachers from kindergarten to grade 6. For example, even though, project standard reading supposed to be only for 3<sup>rd</sup> grade, but the organization invited all teachers to learn the new methods and make adjustment based on their grades.” The trainings fall mostly on vacation, and study visit is held on weekend or holiday.

Strong community participation is one of the most important success factor of effective teaching/learning.

Angkor ban School depend much on NGO training, assessment, teacher capacity building. The school is lack of strong school leadership. The prominent form of PD is training and study visit. However, there seem to lack of focus on collaboration among teachers and among schools in the pilot projects. There is no form of collaboration between teachers except a few sharing sessions on monthly meeting that is not flexible and teacher capacity building agenda are not the priority. The director doesn’t remember how many trainings are provided to teachers so far and never assess the

teacher performance. Mostly the school focus on training as the only crucial tool to build teacher capacity but less chance for teachers to reflect their teaching practices with peers.

An external change facilitator is needed for PLC to take place and function well who can bridge the gap between new research/innovative methods and classroom practice. Save the Children in this essence could have been the facilitator but they didn't focus on peer collaboration.

There should be a formal assessment put into place to evaluate teacher capacity, standardized one so that school can assess which teachers can be upgrade to senior teachers and eligible to do mentoring and coaching.

In regular schools, there should be competition in the school cluster. Competition is healthy; it can improve quality. There should be evaluation and publically announce the result. In present practice, we have seen some DOE have announced the evaluation of Child Friendly School status; however, it mostly focusses on school environment, not on teaching/learning quality.

Make trainings and learning, and helping other teachers as incentive for teachers to claim career path so that they don't look at per-diem as their only source of motivation. In Angkor ban school, even though the training is held at their school, teachers are given 6 dollars a day. Therefore, we should make TCP and its criteria such as attending CPD, mentoring others widely known so that teachers can be more motivated to improve themselves and others.

#### **4.4 Teacher Professional Development at New Generation Schools**

New Generation School (NGS) is another step of Child Friendly School (CFS) to promote education in Cambodia. The Policy Guidelines for New Generation Schools (2016) policy provides guidance to educators and administrators at all levels regarding the implementation of New Generation Schools (NGS). The establishment of New Generation Schools is an official policy goal of the MoEYS. The establishment of New Generation Schools is seen as a continuation of Child Friendly School developments. Such schools receive some greater autonomy from the state to stimulate educational innovation (Chartered School Movement). With this school type the ministry intends to create a new development track within the public education system that will

lead to the creation of autonomous public schools, which receive high investment linked to new standards of accountability and governance as well as professional standards for 21st Century learning.

The vision of New Generation Schools is that NGS will lead to the emergence of a new administrative framework that ensures the necessary conditions needed for successful educational investment. The objectives are according to the NGS policy guidelines the following:

- Create autonomous public schools governed by strict rules of performance accountability linked to high investment.
- Create new governance boards that will hold schools accountable for their performance.
- Create an accreditation system that will facilitate Oversight Board decision-making about a school's adherence to New Generation School core principles.
- Provide new institutional freedoms (i.e., operational autonomy) to drive innovation in the way educational services are formulated and delivered.
- Enable the education system to be more efficient and socially equitable with respect to the teaching and learning process by instituting a rationalized resource allocation system that enhances educational services.
- Improve teaching standards through new approaches that include competitive teacher recruitment; performance-based incentives; intensive capacity building in educational technology; STEM and problem-based learning methodologies; and explicit teacher career paths linked to professional development opportunities (e.g., teacher scholarships for future study).
- Expand educational services for Cambodian youth that include career counselling services, differentiated learning channels (e.g., project work, subject clubs), mobile learning, and life skills education.

To achieve the objectives, the policy guidelines, identify a number of key strategies, such as:

- Rigorous School Selection;

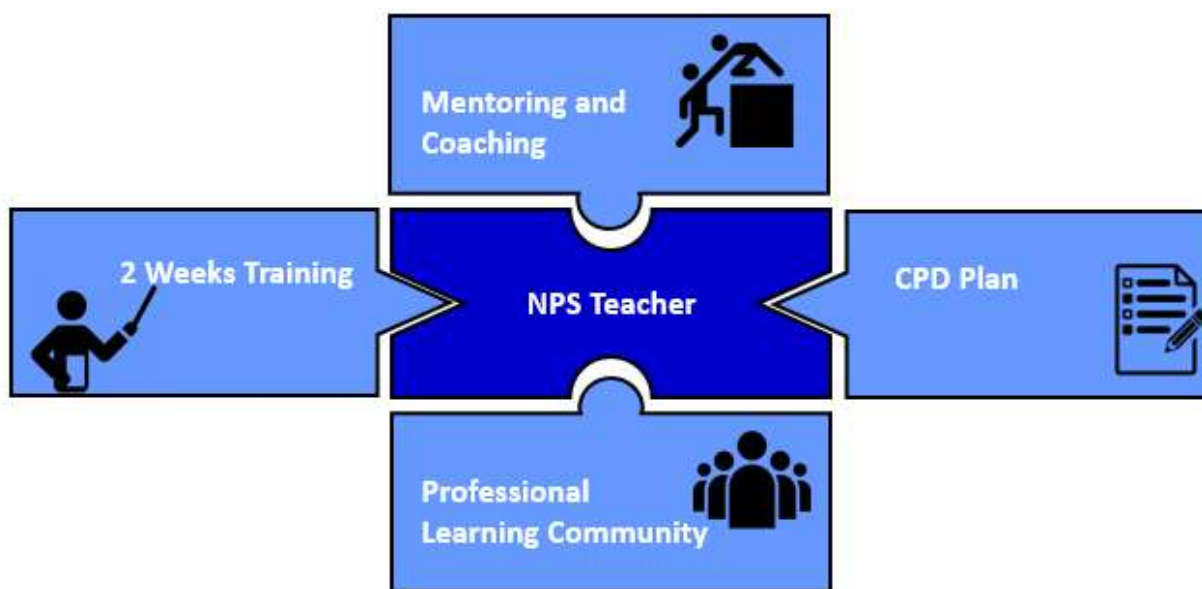
- Partnerships with Non-State Actors (NSAs) and the Private Sector to assist Ministry in implementation and resourcing;
- Strengthen accountability;
- Directly supervision from national level;
- Provide special incentives for teachers to improve performance;
- Operational Autonomy linked with Innovation;
- Allow schools to work outside of the policy framework applied to normal schools, if this will promote new innovation to increase educational quality;
- Right to undertake outside recruitment of teachers from other schools;
- Modify the curriculum and use of technology to increase educational efficiencies;
- Intensive use of technology;
- Youth empowerment;
- Increased number of hours of instruction;
- Introduction of subject themes;
- Reduce the number of students in classrooms to increase individualized learning activities;
- Change mind sets and use new innovative designs in educational architecture.

The concept of NGS is similar to Charter School in other country in which it is a public school but the management, learning and teaching, and financing are different from public school. NGS has separate policy to run endorsed by MoEYS in 2016. Currently, there are 10 NGS in Cambodia. While staff and funding are from the government, there is an NGO known as KAPE providing day-to-day affair in collaboration with school vice-principal and/or principal.

NGS employed teachers either currently government official or newly graduates from university. The employment goes through rigorous process from screening application, teaching test, and oral interview. If successful, the candidate went through intensive capacity building to become teacher at NGS.

The quality of NGS teacher is shaped by four major factors (as in Figure 1): Intensive training for two weeks by KAPE resources persons, Continuous Professional Development Plan

(developed by teacher), Mentoring and Coaching (senior lectures), and being part of professional learning community (PLC).



**Figure 10:** INSET modality used in New Generation School

The two weeks intensive training is designed to equip teaching with teaching methods, leadership, and some other critical skills so that teacher are ready to teach in NGS.

The Continuous Professional Development (CPD) plan is developed by teacher. Normally, NGS requires teacher to conduct self-evaluation. The result from this evaluation, teacher records self-improvement areas for example content knowledge and/or teaching methods. Following the demand of teacher, KAPE response to the need through one-to-one coaching and/or group seminars.

Mentoring and coaching are the activities to promote the quality of teacher when the self-evaluation is not enough. The mentor visits the classroom while teacher is teaching. This makes teaching is highly accountable. If there are any shortcoming identified by the mentor, s/he will make recommendation for improvement.

The PLC is also playing very significant role to promote teaching and learning in NGS. PLC is the advance version of Lesson Study and/or Demonstration Class used by our teachers. PLC required teacher collect information of each student, especially their learning goal(s), and try to

prepare teaching plan to meet those goals. The group of teachers from the same discipline study the students' needs and prepared teaching plan (DuFour & Eaker, 2009). Teachers will exchange ideas and progress of their students' achievement. In some cases, parents were invited to school and discuss about their child study goal and invite to participate the teaching activities to ensure the goals are materialized. It should be noted that while Lesson Study and/or Demonstration Class are focused on teacher learning, PLC is focused on student benefits.

In short, the success of INSET in NGS is associated with two external factors, and two internal factors. For external factors, all teachers are being watched either through their self-evaluation and/or through mentoring systems. The mentoring and evaluation are playing as the pushing force for teacher to ensure that they perform very well. Another external factor is that they are highly valued by students and parents. The engagement of students at school and the study results have promoted the value of teachers and being appreciated by parents. During school visits by parents, teachers have the feeling of connection with the community.

For the internal factors, teacher has career path meaning that if they performance well, there will be incentive such as becoming mentor and/or involving with other activities to promote teaching and learning in NGS.

Finally, teacher at NGS is updating and upgrading their capacity due to their community and/or school environment. Like-minded teachers are working in NGS. This means that they are re-enforced each other to promote learning environment.

The INSET model conducted in NGS has some implication with general public school mainly the PLC and mentoring systems. Given that we can replicate the model if Teacher Career Pathways is implemented with high quality assessment on teacher's performance.

## 5. Discussions

We have seen different models of teacher professional development, each of which was designed to meet each setting. Each case has generated different results and also has its own weaknesses and constraints. Although we have not explored deeply on the effectiveness of teacher professional development of the four case studies especially the linkage of each model to the student achievement, observations can be made based on the above cases. To maximize the outcomes from PD, the policy makers and PD program developers need to change the current PD approaches and practices. Learning from the four cases, there are some recommendations to be made.

### 5.1 Design the CPD with clear professional development objectives

The goals of professional development as well as school conditions and constraints determine which model of PD is the most suitable at a given setting and school. There is a need to identify which teacher competencies and practices are needed to improve within the framework of teacher professional standards. Each type of competencies and practices requires different approaches and mixed approaches. The cascade training model provided by VVOB focuses on science and mathematics in terms of producing and using practical and simple material in teaching and learning of science and mathematics. The cascade model often emphasizes the content knowledge rather than the value and the attitude of teachers.

The objectives of teacher professional development must necessarily link to the student learning outcomes. The learning outcome is improved if only the teacher professional development brings about change to the teachers and thus the practices in the classroom. It is important firstly that the needs assessment is done to assess teachers' training needs. From there, the content of the training must be prepared. For instance, the content of the training for unqualified teachers must not be complex and beyond teacher's capacity, otherwise it is unlikely to be implemented in the classroom.

The need assessment will make PD feasible and improve the implementation of PD in the classroom. However, the study found that in general need assessment is not conducted properly or not by the PD providers and the normal schools. In the four types of schools visited, the school

supported by Save the Children and NGS conduct the need assessment before providing the training to teachers. The need assessment in these schools is conducted in a form of evaluation as earlier as the academic year begin.

## **5.2 Fostering coherence of the content and the process of teacher professional development**

A professional development activity is more likely to be effective in improving teachers' knowledge and skills if it forms a coherent part of a wider set of opportunities providing teacher learning and development. Teachers were guided about what to teach and how to teach from different sources such as pre-service education, in-service education, textbooks, teacher professional standards national curriculum framework, assessment etc. These sources must be coherent so that it can improve teaching practice.

The teacher professional development is coherent if it builds on what teachers have already learned, the content and pedagogical knowledge aligned with national standards and assessments and create professional communication with other teachers who are in the same status (Abbott & Snidal, 1998). The professional development of the School supported by Save the Children follows this pattern. The teacher professional development in this school uses mentoring and coaching by facilitators (the staff from Save the Children) on a particular subject at a time and then the next session is connected to the previous session. Teachers are mentored and coached based on the concept of appreciative inquiry and active learning (i.e. positive practices and positive situations of teachers) in teaching and learning. The professional development in this school is aligned with the test standard results. The test standard is designed based on the curriculum detail and textbooks. The test results are used to design the content of professional development.

The professional development must encourage collegial network among teachers who are engaged in similar ways of teaching. An ongoing discussion among teachers who confront similar issues can facilitate change by encouraging the sharing of solutions to problems. By sharing methods, discussing written work, and reflecting on problems and solutions, teachers may foster a better understanding of the goals for student learning that bring about change in teaching. Technical



meetings in normal schools are aligned with this track if it is properly conducted, it will contribute to the student learning outcome.

### **5.3 Coherence of all actors involving in professional development**

There is a need that technical departments of the MoEYS work together in a coherent way from the planning to the implementation of professional development program. The

Provincial office of Education should be more involved in training rather than administrative tasks. With the support from the MoEYS, at POE, a mechanism for supporting, implementing and monitoring of PD should be created. The mechanism should allow PoE to actively involved in training, funding and data collection, analysis to make the alignment between its inspectors, DTMTs, clusters, Teacher Training Centers (TTCs) and schools.

At district level, the regular meeting between DoE and schools could a vehicle for INSET expansion as well as exchange best practices from one school to another. We have identified different INSET models being practiced in Cambodia. Each model has their strength and weakness depending on the school context. Then, when school principals are meeting each other face-to-face on the monthly basic, they could discuss and learned from each other. This meeting could also be a platform to update the progress of PLC and/or other form of INSET models being used at schools with district DTMT officials. Then, it is very likely that the culture of INSET at school could be amplified. It should be noted that each school principal has different capacity to activate INSET at school. The exchange of best practices of INSET at school during the meeting could be a major venue for them to take away. A unit whose role is to monitor and train DTMT should be created to provide more a systematic capacity building to DTMTs with regards the PD principles, practices, PD need assessment and monitoring and evaluation etc.

### **5.3 School leadership and CPD**

School directors play an important role in facilitating teachers' professional and personal growth conforming with their needs and learners' needs. School directors are role model for their staff by engaging in continuous PD. They need to be trained themselves to acquire new knowledge and skills to lead teacher development activities.

#### **5.4 Organization of professional development**

In normal schools, technical meeting is obligatory only once a month and for only seven months. This won't allow teachers to learn effectively. There should be a regular Technical meeting (demonstration class) say every fortnight so that it become necessary to upgrade teacher capacity. It should be noted that if CPD is conducted somewhere else outside the school cluster, it is highly unlikely that teachers will attend. The major reasons for this is that every teacher is very busy with 1) teaching duty at public school, 2) provide services either private tutor and/or teaching in private school, and 3) taking care family. Also, they may not priority on CPD if it is not at the school based. The provision of CPD at the service providers close to their schools such as RTTCs or TECs is also another option.

#### **5.5 Evaluation**

One of the significant weakness of INSET training so far is the lack of follow-up and support when teachers come to implement the new ideas/methods in their own classrooms, to translate professional learning into practice. Therefore, follow-up and evaluation should be mandatory.

The follow-up school visits at the end of the trainings or TM enabled a useful evaluation of the training and highlighted other training needs as in the case of Angkor Ban primary school. The use of lesson observations within the follow-up (and needs assessment and evaluation) stages, were crucial. These observations provided invaluable support to the teachers, highlighted needs, and enabled an assessment of implementation, which were not accessible using any other methods.

#### **5.6 Impacts of CPD on teachers**

The effective teacher professional development leads to changes in classroom practice and ultimately improve student learning outcomes. In primary school context, it is particularly to improve students' literacy and numeracy. After engaging in various forms of PD, teachers could identify positives changes in their classroom for example to be more student-centered. There are more activity-based lessons in the classrooms. A teacher reported that in math class after students go through all the games they learn more and they are excited to know about

mathematics, more fun and less boring for them. They better engaged, and developed more positive attitudes towards their learning.

## **6. Recommendations**

Learning from the four CPD cases, there are some recommendations to be made the following:

### **6.1 Need assessment**

PD need to address teacher and student needs. The decisions regarding PD at school should be made after genuine consultation with teachers and school directors. The mechanism should be school director or the principal schools of the cluster school conduct need assessment from teachers and create a handbook of skills, content knowledge and pedagogical knowledge so that the schools can arrange the training either by using their school resource and/or invited ToT from DTMT, PoE, TEC and/or TTD. School directors and teachers shall be trained and empowered to assess the specific needs of teachers and school.

### **6.2 Mixing modes of the teacher professional development**

Choosing the locus of intervention and the proper mode for CPD depends on the objectives of the program and at the context of given schools. Mixing of the four models i.e. cascading model, technical meeting, mentoring and coaching and PLC in a coherent way can be worked well taken into the current context of the weak school governance. According to the practices in most countries in the world, the most effective method of the professional development combines on and off-site activity and combine self-development with external assistance. To form a coherent CPD program from the four models, each CPD model should be fixed.

It is recognized that technical meeting is one form of a well-establish PD at school and cluster level. To make it function better, some rule and practices should be put in place such as strict attendance, meaningful discussion during feedback session, imposing questions or problems for teachers to work and research on by using data in their own schools to solve particular problem

and good facilitative skill for school principals and TGL. More importantly, as teaching demonstration in technical meeting focus on the mastery of topics, a more effective way is to arrange it as Japan's lesson study.

Lesson study has been used as form of professional development activity practiced in Japan for so long and increasingly used in the United States and other countries. Lesson study is "a type of classroom research in which a few teachers investigate teaching and learning in the context of an actual single class lesson. After each lesson study session, teachers document their work in a report that describes the lesson they designed, explains how the lesson worked and what they have learnt about teaching and learning from the lesson study experience. The lesson study is characterized as collective learning classroom-situated, context-based, learner-focused, improvement oriented and teachers-owned. These features of lesson study match the elements or principles of an effective professional development.

Lesson study consists of three phases: plan-do-see. The planning phase involved in the selection of the topic, study of teaching materials and mapping out lesson plans. The lesson study concerns the study of teaching material in order to strengthen the content knowledge necessary to teach the topic effectively. After the planning phase, a teacher conducts the study lesson based on the plan. This lesson plan is usually distributed to each observer. The number of colleagues who observe the lesson varies depending on the purpose of the particular lesson study. If it is a lesson study by a subject group or a grade level of teachers, the number of teacher observers is usually smaller. On the other hand, when the lesson study is carried out in a large public research meeting, many observers including curriculum experts and tertiary teachers will attend. In each case, the participants will scrutinize what the teacher and the learners do. The observers listen attentively to all contributions made by the learners, and make a note on the lesson plan of the critical remarks by and/or behaviors of the teacher and the learners in relation to achieving the lesson outcomes. The observers must take observational notes.

The observational notes on a lesson plan will be discussed in a post-lesson conference or forum. The post-lesson forum follows immediately after the lesson. If time or schedules do not allow for it, the post-lesson forum may take place later on the same day. During the forum the teacher briefly explains the intended outcomes of the lesson and the points she/he emphasized in the lesson plan. All observers are encouraged to contribute to refining and improving the lesson by asking for

clarification, recognizing the strengths or good aspects and identifying the challenges. Comments on the challenges should be accompanied by suggestions and alternatives.

There is a need to scale up the practices of coaching and mentoring. Reinforce TGL role in providing support to novice teachers and make use of expertise from TEC trainers. Teachers with more expertise mentor those with less expertise. This will link to the implementation of teacher career pathway framework. The highest levels with the teacher pathways can serve as core group of experts who will develop the professional development for teacher.

## **6.2 TEC as CPD service providers**

In order to ensure effective and efficient operation and management of in-service training programs, MoEYS should consider providing autonomy to the two Teacher Education Colleges and others PTTC and RTTC that will upgrade themselves to Teacher Education Colleges based on Teacher Education Provider Standards after 2020 in making decisions on all aspects of managing the teacher education programs as a regular higher education institution. MoEYS at central level should only regulate, monitor and evaluate the programs to make sure that TECs will always produce accountable results that comply with regulation and standards stipulated set by national policy. The autonomy granted to TECs with full financial and professional supports will facilitate TECs to attract and retain brightest candidates in teacher education professionals' missions stipulated in the teacher policy documents. TECs and schools have the closest operation and management nature that they can learn and support one other.

Based on the need assessment, TECs provide a number of CPD courses that address the needs of teachers, learners and the schools. Based on CPD policy, teachers can have at least 100 hour CPD per year supported by the state. The teachers can register for the CPD courses at TECs.

## **6.3 Creation of professional learning community**

Provide teacher professional development in the form of “a community of learning” is another option. In a community of learning, teachers can identify their need, the community’s need, do the planning, implement, support, assess and provide feedback. Through this process, the teachers bring the real life experience to the learning in the classroom and improve the learning outcome of the student. Learning community improves not only the content and pedagogical knowledge of

teachers but also foster team building and sharing of knowledge and common values in their work lives.

Learning communities of teachers take various forms such as teacher groups for similar subject areas, teachers across subject areas learning with and from each other as communities of learners. The MoEYS needs to provide supports to schools in the implementation of communities of teachers.

#### **6.4 CPD linked to Career growth and incentives**

As the MoEYS is considering to change its approach of CPD, teacher pathways for career advancement and recognition play important role in this change process. The conditions under teachers work and the fact that they know that their CPD engagement is related to their career success will have great impacts on their levels of CPD engagement. CPD program needed to be developed in according with teacher's career structure. TCP framework was adopted but there is no clear guideline on the implementation of TCP. Teacher career pathways is interlinked with the remuneration and benefits. The career and proficiency level achieved according to the TCP will have a direct impact on the income of teachers.

The implementation of TCP will require the creation of a service record for teachers (Career Passport) that centers on a professional credit system including confirmed information about CPD engagement and other professional achievements. teachers will have their individual record and can claim the awarding of the appropriate career level.

### **7. Conclusion**

Upon review of the concept and practice of effective CPD for teachers, the research suggests that policy makers, practitioners and academics know what constitutes a good CPD program. Nevertheless, the issue of how to effectively implement CPD remains a significant challenge. To begin to address this question, four CPD cases are presented and analyzed. The cases show that firstly, the right approach to CPD depends on local needs and conditions and the objectives of the

CPD program. Secondly, to maximize the outcomes from CPD, the policy makers and CPD program developers need to change the current CPD approaches and practices. Rather than only using dissemination or cascade approach, the CPD should be conducted at school level under various format as social process, coherent and sustained ways that transform teachers to active learners and bring about the professional and personal growth. The school and cluster based CPD is the prominent model used in primary school teachers in Cambodia, but as the primary schools in Cambodia have weak governance, the mixing of CPD modes may be an effective adaptation. Lastly, the CPD linked to career growth and incentives under teacher career pathways framework is a pushing factor for teachers to develop their professional capacity given that the CPD will not only improve student learning outcomes but also their professional and personal growth.

## Annex 1: Comparison of CPD paradigms in the four studied schools

	<b>Cascade model</b>	<b>Coaching and mentoring</b>	<b>Demonstration class in normal schools through cluster system</b>	<b>Professional learning community</b>
<b>Objective</b>	Transferring new knowledge, skills  Knowledge or Skill-based	<ul style="list-style-type: none"> <li>- Induction of new teacher</li> <li>- Strengthen practices of experience teachers</li> </ul>	<ul style="list-style-type: none"> <li>- Exchange ideas/practices/resource among schools in cluster</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>- Creation of new knowledge</li> <li>- Exchange ideas and practice within school</li> <li>- Solving school/ classroom problem by conducting action research</li> </ul>
<b>Sustainability</b>	One-shot workshop approaches	<p>Sustained and extensive opportunities to develop practices</p> <p>Depend on one-to-one relationship between two teachers</p>	Properly run, sustained and extensive opportunities to develop practices.	Sustained and extensive opportunities to develop practices
<b>Content</b>	Teachers are trained to follow pattern.  Focus on coherence and standardization	<p>Teachers are trained to be empowered professional.</p> <ul style="list-style-type: none"> <li>- Social and cultural</li> </ul>	Teachers are trained to follow pattern. The content is too routine.	Teachers are trained to be empowered professional.



		norms within institution - interrogation of practices		
<b>Venue</b>	offsite	Within school	Cluster level	Within school
<b>Organization of professional development</b>	Once a year in average	regularly	Once a month	weekly
<b>Type of learning</b>	results in passive learning	Results in active and participatory learning.	results in passive learning	results in active if continuously questioning and reflecting practices; engaging in action research  Depending on the role played by the individual as a member of the wider team, could be either a positive and proactive or a passive experience,
<b>Power</b>	Centralized workshops or programs	School-based model in which all teachers participate  One-to-one relationship	School-based model in which all teachers participate	Subject-based or level based or cross disciplinary teachers (more than 2 people per group)  Generate School-based research, shifting balance of power towards teachers themselves

<b>Delivery</b>	Expert driven	Teacher facilitated.	Teacher facilitated	Teacher facilitated
<b>Relevance &amp; Responsiveness</b>	Programs do not address the need of teachers and schools. Lack of connection to classroom context	Program address the need of teachers and schools	The content rarely discusses on classroom issues.	Carry out collaborative action-based research, the problem of relevance will be addressed.
<b>Evaluation</b>	Program evaluation (survey)	Self-evaluation; mentor evaluation	None	Self-evaluation & peer evaluation
<b>Impact</b>	Improve content knowledge/ pedagogical content knowledge	Improve self-reflection and practices	Improve pedagogical knowledge	Improve critical thinking, questioning, reflection, communication, change classroom practices

## Annex 2: Questionnaire

### 1- Semi-structured interview

#### 1.1 Teacher Training Department

2. Why we need INSET?
3. What is the process of INSET?
4. content (what, how it is developed?)
5. Modalities of INSET
6. Changes of INSET models over time
7. Challenges, issues and barriers
8. Impact of INSET on teacher and classrooms
9. Are there any roles of TTD to play in providing CPD at school? If TTD has not involvement with CPD at school, who is in charge?
10. Any guideline of applying TM? How it is run?
11. Any involvement with PLC?

#### 1.2 Primary education department/Primary education office (PoE)/DTMTs at DoE

- 1- Is there any assessment on teacher's competency?
- 2- What are the role of inspectors in upgrading teacher's competency?
- 3- What are the involvements of PED in CPD at school?

#### 1.2 Teachers

- 1- Which development programs (INSET, NGOs training...) have you attended in the last 3 years of your career? Which of them were worthwhile.
- 2- Can you tell us about your self-professional learning? What are your best practices of self-professional learning?
  - Online learning
  - Teachers observe their students for ex: to improve teaching methods
  - Experiment with various topics, materials and activities,
  - Time allocated for self-learning
- 3- What is your view of professional development for staff in your school?
  - a. communication and interaction among teachers in your school
  - b. trust and respects
  - c. share ideas and practices
  - d. how supportive is your principal to improve your PD
- 4- What should be an effective CPD for you and your school?

- 5- In what way could CPD benefit professional growth and the student learning outcome?
- 6- What small changes about CPD could we make *right now* that would really improve learning outcome?
- 7- How would you personally like to be involved to improve CPD?

### **1.3 School principals**

- 1- What is your view of professional development for staff in schools?
- 2- What have you done to support CPD in your school?
  - PD provided by school principals
  - Time allocated to teacher for CPD
  - Facilities (room, library, books...)
  - Annual budget for CPD
- 3- Have you done need assessment of your teachers? do you link teacher performance assessment to CPD?
- 4- What should be an effective CDP for teacher in your school?
- 5- What small changes about CPD could we make *right now* that would really improve learning outcome?
- 6- How would you personally like to be involved to improve CPD?

## REFERENCES

- Abbott, K. W., & Snidal, D. (1998). Why states act through formal international organizations. *Journal of conflict resolution*, 42(1), 3-32.
- Academy of Singapore Teachers. (2012). Professional learning communities. Retrieved from <https://www.academyofsingaporeteachers.moe.gov.sg/professional-growth/professional-learning-communities>
- Asian Development Bank. (1996). *Cambodia: Education sector strategy study*. Retrieved from Manila:
- Beavers, A. (2009). Teachers as learners: Implications of adult education for professional development. *Journal of college teaching and learning*, 6(7), 25.
- DuFour, R., Burnette, R., Eaker, R. E., & Karhanek, G. (2004). Whatever it takes: How professional learning communities respond when kids don't learn.
- DuFour, R., & Eaker, R. (2009). *Professional Learning Communities at WorkTM: Best Practices for Enhancing Students Achievement*. Bloomington: Solution Tree Press.
- Hang Chuon, N. (2017). The paths of education reform. *Cambodia Education Review*, 1(1), 5-31.
- Kennedy, A. (2005). Models of Continuing Professional Development: a framework for analysis. *Journal of In-Service Education*, 31(2), 235-250. doi:10.1080/13674580500200277
- MoE. (1980). *Education magazine*
- O'Sullivan, M. C. (2001). The inset strategies model: an effective inset model for unqualified and underqualified primary teachers in Namibia. *International Journal of Educational Development*, 21(2), 93-117.
- OECD. (1998). *Staying ahead: in-service training and teacher professional development*: OECD, Paris, France.
- Ono, Y., & Ferreira, J. (2010). A case study of continuing teacher professional development through lesson study in South Africa. *South African Journal of Education*, 30(1).
- Patton, K., Parker, M., & Tannehill, D. (2015). Helping teachers help themselves: Professional development that makes a difference. *NASSP Bulletin*, 99(1), 26-42.
- RGoC. (2010). *Education Strategic Plan 2009-2013*. Phnom Penh.

