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EMPIRICAL DIRECTIONS TO DESIGNING SUSTAINABLE IN-SERVICE TRAINING FRAMEWORK FOR PRIMARY SCHOOL TEACHER IN CAMBODIA

Chankea Phin

Graduate School of Comprehensive Human Sciences, University of Tsukuba, Japan phinchankea@gmail.com

Abstract

In-service training is an imperative for ongoing flexible development of teacher in this changing world. This study is to explore directions to ensure this need that later the study will propose a design of these exemplary sustainable in-service training frameworks. The study administered questionnaire surveys, interviews, and school visits in total of seven stages of field studies in Cambodia, in addition to existing literatures. As such, quantitative and qualitative analyses were made carefully. The results of the study found that (1) teachers acknowledged the significance of in-service training opportunity for their personal/professional/school development, (2) they desire to have regular opportunities in their career, (3) they need an actionable framework for it; but (4) they face some challenges within their schools specifically schools in rural and remote areas. The study would suggest: a) extend to larger survey samples, b) test the designed framework to see how effective and efficient it will be and to what extent it will get sustainable, and c) further find ways to raise awareness from more teachers to make more acceptable decision in their career, from community people to support teacher education, and from stakeholders to provide timely supports to teachers especially rural and remote teachers.

Keyword

Basic Education, Cambodia, Quality Teacher, In-Service Training, Primary School Teacher, Professional Development, Teacher Policy

1. Background of the Study and Problem Statement

Presently, there remains million children and youth in the world failed to learn the basics that cannot or barely able to read or write. There require more efforts to get them into school and to make sure that they stay long enough in school to benefit from at least a necessary minimum level of quality basic education. Teacher stands at the core of children's learning and of quality education system as the whole, particularly higher education level cannot be achieved without success of basic education level that requires flexible quality teacher. The richer countries have prepared better for their teacher's continuous professional development (CPD) opportunities than the poorer ones. Cambodia is one of developing countries challenging to secure CPD to her teacher, for example: towards low academic level of primary school teacher.

In Cambodia, school system has been changed respectively since 1979. Specifically, it was 4+3+3 (10 years) of school system for 1979-1986, 5+3+3 (11 years) for 1986-1996, and 6+3+3 (12 years) for 1996-now (MoEYS, 2007). When there is something in the system changes, the role and task of teachers will change too. Regarding education statistics (MoEYS, 2012a), it shows that Net Enrollment Rate (NER) is 96.4%, 35.1%, 19.6% respectively for primary education, lower secondary education and upper secondary education level. In terms of Completion Rate, it shows 89.7%, 42.1%, and 27.8% respectively for primary education, lower secondary education and upper secondary education level. Concerning Literacy Rate, in 2008, it shows 77.6% for adults (15 years old and over) and 87.5% for youth (15 – 24 years old). In terms of education level, the tables below show low academic level of school staff both teaching and non-teaching staff (See Table 1 and Table 2 respectively).

Table 1: *Education Level of Teaching Staff* (MoEYS, 2012b: 2, 23 & 30)

Edu. level		Number (%)	Urban	Rural
Primary		2,275	254	2,021
Lower secondary		30,594	6,559	24,035
Upper secondary		43,946	10,717	33,229
Graduate		9,144	4,269	4,875
Post graduate		444	295	149
PhD		1	0	1
	Total	86,404 (83.3%)		

Table 2: Education Level of Non-Teaching Staff (MoEYS, 2012b: 2, 23 & 37)

Edu. level		Number (%)	Urban	Rural
Primary		726	89	637
Lower secondary		8,295	1,312	6,983
Upper secondary		6,474	1,314	5,160
Graduate		1,613	508	1,105
Post graduate		264	128	136
PhD		4	0	4
	Total	17,376 (16.7%)		

Likewise, the Figure 1 below shows low academic level of all education staff in the entire Cambodia from school level through central level, especially a more concern goes to some teachers who only finished primary or has not finished primary school level (MoEYS, 2011). Concerning teacher training, according to MoEYS (2010b:4), teachers are trained at 26 institutions divided into four types of teacher training centers (TTC) depending on their position, specifically, The Pre-School Teacher Training Center (PSTTC) trains pre-school teachers with 12+2 or 9+2 training formulation, The 18 Provincial Teacher Training Centers (PTTC) train primary school teachers with 12+2 or 9+2 training formulation which means teacher students need to complete 12 years or 9 years of general school education plus 2 years at TTC, The 6 Regional Teacher Training Centers (RTTC) train lower secondary school teachers with 12+2 training formulation, and The National Institute of Education (NIE) trains upper secondary school teachers with Bachelor+1 training formulation and train inspectors, while sometimes is a place for in-service training programs of many education levels and stakeholders. Through concerned review of documents, the author noticed that percentage of primary school diploma is

56.24%; and percentage of lower secondary school teachers without upper secondary school diploma is 25.40% (MoEYS, 2012c). Furthermore, the MoEYS (2017: p.22) also indicates teaching staff without pedagogical training. As such, the author consider in-service teacher training is an imperative for ongoing flexible development of teacher in this changing world.

It is argued that some forms for teacher professional development (TPD) are provided through formal educational courses or workshops and by holding an "in-service" program that may or may not be relevant to teachers' professional needs (Corcoran, 1995). However, policymakers of developing countries –particularly former colonial nations, have worked under influence of foreign ideologies and with supports of foreign policies. Nonetheless, a model of a foreign country can or cannot be implemented effectively due to the different history and culture (Kubota, 2008) that needs to consider accordingly when introducing new system model from one country to another country. There needs to modify foreign support to make it fit to the conditions of developing countries (Sato, 2008). So, eliminating unwanted foreign policies and developing wanted national policies are preferable for effective understanding and implementation among local institutions. Within this extent, the author of the present study focused on discovering a native, indigenous model of in-service training plan based on Cambodian insiders' experience and their expectation.

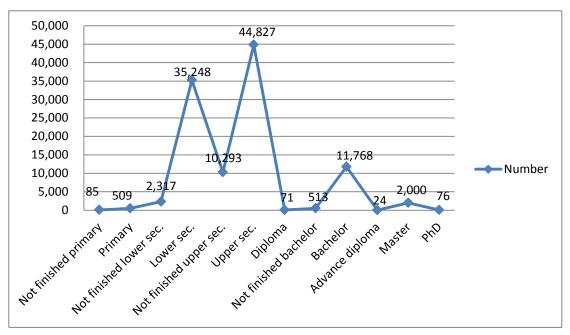


Figure 1: *Education Staff by Education Level* (Source: MoEYS, 2011.)

The existing studies such as Fregusson and Massion (1997), Fujigaki (2002), Tan (2007), Duggan (1996), Kitamura (2008), Kim and Rouse (2011), Khlork (2001), Chhinh (2002), Chhinh and Tabata (2003), Courtney (2007), Tan and Ng (2012), Berkvens (2009), Prigent, 2016 and Kuroda, Kartika and Kitamura (2017) depicted: education officials' awareness of prior tasks, conducting further study on qualified teachers in dense and spare areas, improving teaching service conditions, further exanimating the relation of untrained teachers and low literacy and numeracy of children, recognizing the effectiveness of aids and decentralization against the lack of capacity of local officials to manage, clarifying teacher's role and acknowledging the development and training opportunities, raising teacher capacity through establishing standard of pre-service teacher training -for example: training at university for bachelor degree or even higher to master degree, raising teacher quality through in-service training programs, elaborating messy system of teacher training and unreached outcomes, observing in-service training program if it virtually contributes to the success of education reform, strengthening competence of teacher trainers on how to use facilities and content of the training which influence on the level of quality of trainees, spending more time not just on academic knowledge upgrading during inservice training program, creating and sustaining ongoing professional learning routine of teachers, making proper use of aids to strengthening weak policy and practice in professional development –for example: to develop skills of officials at ministry level- while there requires having personal commitment, personal willingness and ability to learn in addition to amount of supports from outsiders.

2. Objective of the Study

More researches have focused on educational staff of the central level, yet a more effective-and-efficient policy has not reached quality primary education level. Unlike previous studies, the present study is worth conducting with not only officials of national level, but also teachers of school level whose voice and/or perspective are rarely heard. Thus, this study is to explore directions to ensure this need that later the study will propose a design of these exemplary sustainable in-service training frameworks with the flow of conceptual framework (See Figure 2).

1. Firstly looking at the condition of local educational site, the study is to address the current state of primary schools and the teachers in Cambodia by investigating the

- awareness of school directors and depicting educational administrators' timely perspectives.
- 2. Secondly looking at the commitment of national level, the study is to examine the Cambodian government's education policy –more specifically on the current state and issue of implementation of the Child-Friendly School (CFS) policy in primary school.
- 3. Thirdly, the study aims at exploring already-in-post teachers' reality concerning the INSET program, the programs provided and the programs desired by teachers in Case A: multi-level of education staff and in Case B: teachers of primary education level.
- 4. Finally, fourthly, the study aims to show empirical directions for an applicable model of INSET structure for TPD of primary school teacher in Cambodia.

In addition to existing literatures, by drawing primarily upon a combination of original dataset derived from questionnaire surveys and interviews as well as field visits, the study was designed with four specific objectives as above, which imply to develop creative and innovative method of CPD of primary school teacher in Cambodia. This study is originally designed depending on the author as an insider's view on the issue on teacher policy in Cambodia. Likewise, the dataset was also originally obtained from respondents' perspectives on their own realities. At the greatest extent, the study thus can be the first-ever model for promoting the TPD in Cambodia through in-service training within the school, since the study was unique in both methods and context. In other words, at least, this study is an originally, timely, and highly empirical research that had never been conducted before.

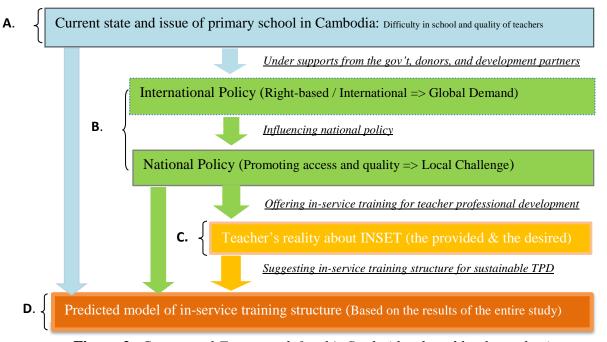


Figure 2: *Conceptual Framework for this Study (developed by the author)*

Rather than being a study for controlling the link of effects with the causes and vice versa, and than being a study for identifying the findings of phenomena are correct or valid; the present study is a rigorous attempt for a critical scrutiny based on its empirical results of all phases of the surveys. In short, this study is an exploratory research whose findings implying to embed a sustainable improvement of primary school teacher professional development, particularly within the school and cluster in which they are affiliated. It is hoped that the study will make a substantial and innovative theoretical and practical contribution to the field of study on teacher policy in the context of developing countries where the budget is tight, and more particularly for countries with similar issues regardless of the levels of their economic development. In other words, more than to improve understanding of the current educational issues, this study empowered the empirical regulations and may also shed light for new theoretical insights within Cambodia or countries whose conditions and/or intentions are alike.

3. Methodology and Scope of the Study

The study administered questionnaire surveys, interviews, and school visits in total of seven Phases of field studies in Cambodia, in addition to existing literatures. As such, quantitative and qualitative analyses were made carefully. The empirical results of the study are expected to shed light and to contribute to a large extent to connect policy making with practice.

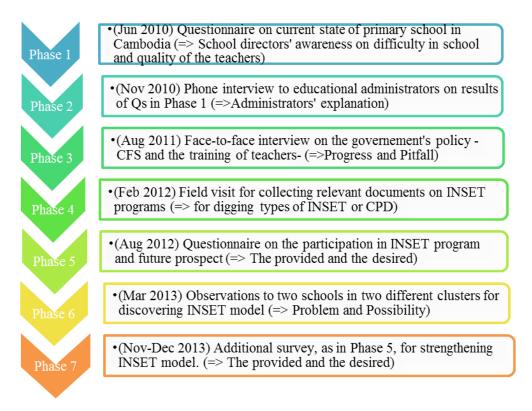


Figure 3: *Overall Methodology of the Whole Study Consists of 7 Phases (developed by the author)*

As shown in Figure 3, overall, based on empirical results of the surveys from all Phases and their implications from Phase 1 through Phase 6, finally in Phase 7, the last questionnaire survey was additionally conducted between November and December 2013 by utilizing the same questionnaire which was used in Phase 5. In this final Phase, the questionnaire distributions were targeted to all teachers of all primary schools of two different clusters, Cluster A and B, in which the two schools in Phase 6 affiliated. More researches in education in developing countries usually conducted with educational officials at central level that normally lack of input from local level especially from school. This study tried conducted only with central but also with school level to obtain this rare input to contribute to existing theory and knowledge. The qualitative surveys of the present study thus provided in-depth insights for developing a sustainable, regular in-service training system for primary school teachers so as for their CPD. In other words, the dataset collected for this study were primarily qualitative empirical results of many times of surveys, focusing on the quality and management of teachers in formal primary education sub-sector. In this study, thus, such qualitative data were textual, non-numerical and unstructured (Basit, 2003).

To this extent, the data analysis for this study was more contextual based on assigned conceptual frameworks within and between Phases where necessary. However, for a broad case and to some extent, the survey results of one Phase were utilized for cross-cutting discussions with another Phase. *Quantitative Data Analysis*: For the dataset obtained from the questionnaires, the author coded carefully to respect respondents' responses anonymously and confidentially and then put them into the MS Excel spreadsheet. The author checked concretely through the data more than one time and cleaned the inconsistency, the ambiguity and the errors where necessary to make the data coherent, logical and sound. For example, the author merged the word 'Monthly Technical Meeting,' the 'Technical Meeting' and the 'Monthly Meeting' into the same term.

Qualitative Data Analysis: For the qualitative data, the author made the analysis based on categories of the responses by skimming the responses carefully many times in aiming for trying to conceptualize and categorize into relevant groups. This type of dataset was obtained from mainly from the interviews and open-ended questions of the questionnaires. The author recorded during the interviews and listened several times to conceptualize the contents. Then, the author transcribed it on MS Word and later the author read and re-read them for organizing them in order to get specific responses (IES, 2015).

4. Results

The study consists of a wide range of results such as retrospective, concurrent, and prospect. Below section summarizes results of the concerned Phases of the entire study. Firstly, it tells the state and issue of primary school in Cambodia, specifically in regard of difficulty within primary school and the quality of its teachers. Secondly, it indicates the commitment of Cambodian government in expanding access to education in response to the global Education for All (EFA) Goals and in improving quality of education, especially basic education level. Thirdly, it describes teachers' perspectives concerning the *in-service education and training (INSET)* of teacher by showing case "A" which targeted to a mixed level of education staff from school level to central level. Fourthly, it described the same way as in the third results but by showing case "B" which targeted to obtain perspectives from primary school teachers only. Fifthly and finally, it sums up and discusses empirical directions of the research findings obtained from all of the above sections from the first part through the fourth part which is anticipated to shed light as a

roadmap for a sustainable framework of INSET program within a school or a school cluster. All these above-mentioned sections imply to respond to the objectives of the entire study.

4.1 State and Issue of Primary School in Cambodia: Difficulty in School and Teacher Quality

Although in-service training for teacher is addressed officially as very imperative, but actually it is not properly provided for teachers in Cambodia today. More severely, it is not mentioned in the recent executive annual plan of the Ministry (MoEYS, 2012e). The most important thing is to support what might work in TPD in a timely way.

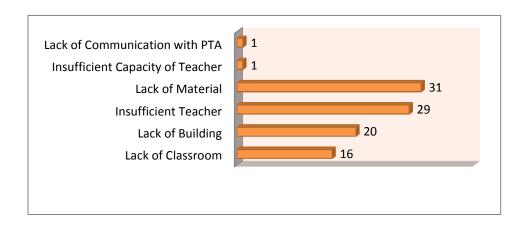


Figure 4: *Main Difficulties at School (N= 55, Multiple Answers)*

While the achievement of the in-service training for teacher is slightly and rarely mentioned in the annual report of the last national congress on education recently (MoEYS, 2012d). Figure 4 shows main difficulties at Cambodian primary schools such as dealing with insufficient capacity of teachers and so on as results of questionnaire in Phase 1 conducted with 55 primary school directors. In Cambodia, relationship between school and community is very essential in acting in society regarding to economic sector, social affair, culture and national tradition. Up to present, school construction as well as in school developments were supported from the major contributions of their own communities (MoEYS, 2005 & 2006:6). Community does provide not only necessary materials to improve school environment and help find funds from various stakeholders to support school, but also actively take part in solving related issues such as providing their local available materials to help in children's learning and teacher's teaching (Ibid:16). As such, community participation is very significant for various

improvements of school. Table 3 shows awareness of school directors on quality of teachers in their schools regarding *teachers' knowledge, skills and other capacities*; whereas Table 4 shows their awareness on quality of their teachers regarding *attitude and value*. Where there is insufficient number of teacher, community help to complete the lack and even monk in local pagoda play their role as teacher.

Table 3: *Knowledge, Skills, and other Capacities (Based on Survey Result)*

Awareness on Quality of Teachers in their Schools (N= 55, Multiple Answers) A		
No. Their Comments about teachers in their schools		Their Comments about teachers in their schools
Enough	49	Lack of work-conscience, Lack of budget to go training, Less study,
Not enough	3	less research, work carelessly, lack of knowledge, capacity; low
Poor	0	salary, Studied by lower secondary school, low level in foreign
Others	2	language, no time to research, lack of extra training, Living
		condition is unable to learn much.

Table 4: Attitude and Value (Based on Survey Result)

Awareness on Quality of Teachers in their Schools (N= 55, Multiple Answers) B		
No. Their Comments about teachers in their schools		Their Comments about teachers in their schools
Enough	47	Positive : Enough capacity to educate children; Share experiences
Not enough	4	with other teachers; Practice teaching and learning well; Good
Poor	0	model, Role, Problem solving.
Others	2	Negative: Come late, improper words; Need to be trained to
		behave/value/work well.

Therefore and no matter whom they are, whether they are monks or secular people; if they are teachers, they play very important role in Cambodian education and Cambodian society. Thus, the role of teachers is unable to be overlooked or ignored and is desirable to be put into consideration in any of educational policy. For a more detailed on the role of basic education in Cambodia, the author had conducted interviews with some relevant educational stakeholders including ministry level (MoEYS) and provincial level (PoE) in the interview surveys in November 2010 in Phase 2 of the study. The empirical results can be presented as following in Box 1.

Box 1. Perspectives on the Role of Basic Education (based on survey result)

a) ADB Advisor to MoEYS

Education plays a major role in the society. It is the springboard of every society to develop in progress because it will direct the people to develop human resources and values, attitudes. For a society to progress, education must be taken into big consideration. An empowered society brings progress to its people and country.

b) Deputy Director of PoE of "Y" Province

Education in this province has its vision. It is to let everyone gets knowledge, skill, and proper attitude

	to live in society. Its mission is to bring up human resources to let them gain knowledge.			
c)	c) Director of PTTC in "Y" Province			
	It plays a very crucial role as a place in developing human resources, who are helpful for the country,			
	which depends on the quality of education to raise those human to assure that people's understanding			
	is deep to take part in developing the country. If the people are illiterates, they will not be able to take			
	part in developing the country.			
d)	d) Professor of PTTC in "Y" Province			
	It has the most important role that leads to develop the society both in moral sector, knowledge,			
	attitude, and in working to help society.			
e) Urban Primary School Director in "Y" Province				
	It provides enough human resources to meet the labour market in the regions they need.			

f) Rural Primary School Director in "Y" Province

It is to help students to get knowledge. Illiterate is the most important problem.

There appear many opinions among above educational stakeholders. They translate such points of view by focusing on children for they need to learn not only basic knowledge and decent skills, but also good attitude to live in the society. Especially, the rural primary school director and the director of PTTC sued the importance of literacy education.

It argues prevalently that the competence of teachers varies from place to place, from time to time, and even from experience stage of one teacher to another; because no one can deny that not all teachers perform at the same educational objectives nor educational environments (Ohira, et. al, 2010), although and of course there must have something in common among those teachers. In the interviews with director and professor of TTC and primary school directors, the author asked about desired necessary things for teacher's quality and competence. The results are presented as follows in Table 5.

Table 5: What are Essential form=r teacher's quality and competence?

Director of PTTC	Professor of PTTC
Capacity and skillsMoralAttitude (Modesty, Flexibility)	 Possess a numerous teaching methods Creativity Ways of questioning children when they still not understand Do research by their own Possess enough knowledge Actively and joyfully teaching children and
Urban Primary School Director	Rural Primary School Director
Wise knowledgeMoralAttitudeObey the rules and regulations	 Experience as a teacher Consultation and teaching methods Good at teaching Effectively utilize educational materials

 Creativity in difficult situations 	(Presently no sufficient materials, though)		
 Do research by their own 			
Source: Based on interviews conducted in Phase 2 in Nov 2010.			

The most common responses were stressed on knowledge, skills, and attitude. Rural primary school director stressed on teacher's experience in service and furthermore focused on being skillful to utilize educational materials. Meanwhile, insufficient educational materials in the rural areas remain an overcoming issue.

4.2 Commitment of Cambodian Government in Improving and Expanding Education Quality and Access: Case of Child-Friendly School (CFS) Policy

In the "Rectangular Strategy" (RGC, 2013) of the political policy, Prime Minister Hun Sen stresses that strengthening the quality of education is an important issue.

The development of high quality and capable human resources with high standards of work ethics is key to supporting economic growth and competitiveness of the country, both in the present and the future. Human resource development, especially for youth, will target capacity building without gender discrimination, in terms of establishing a reliable social safety net system, developing knowledge and know-how, entrepreneurship, skills, and creativity and innovation in every sector particularly in science and technology, and R&D along with enhancement in terms of improving physical health and conditioning, ethic attributes, a sense of personal responsibility, national conscience and professionalism.

It further intends to continue to focus on equal opportunity for all Cambodian children and youth to have access to basic education, both formal and informal, and to improve the quality of education in response to the country's development needs.

This strategy commits to sustainable development and poverty reduction that responds to the people's will and emerging contexts of national and international development. However, there still remain many tasks undone even though the government has implemented many policies to elevate the quality of education. In the Mid-Term Review Report of the Education Strategic Plan and Education Sector Support Program 2006-2010 implementation of MoEYS (2009), it officially announced a number of issues and challenges in implementing educational policies.

- · Establishing new school and constructing dormitory for teacher
- Upgrading the capacity of teacher trainers at TTCs
- · Training for accountants and appropriate management of budget
- · Proper budget enforcement
- · Dealing with one's frequent changing of school
- · Supporting poor families
- · Practicing education based on guideline
- · Accelerating the understanding of CFS policy
- · Grasping for accurate population's statistic

· Strengthening higher education, teacher education and monitoring system

It only enumerated the issues without clear synthesis, and possible ways for solving were not critically detailed nor discussed. Overcoming the issues and challenges that the government and donors have to pay attention on can be presented as above. From above, as presented about educational policy so far, the improvement of educational function, proper budget enforcement and the management are usually raised as the issues. In many parts, Cambodian education system has been influenced by international policies (Edwards et al, 2017). Concerning the promotion of education quality, it raised some issues such as promoting the understanding of CFS policy, strengthening teacher education, practicing education based on guideline, strengthening monitoring system, upgrading the capacity of teacher trainers, and so on.

With this regard, Cambodian government has put efforts to improve the quality and expand access in Education. In the ancient time, Cambodian people have influenced from the Buddhist. They learn by memorizing the Buddhist's rules, etc. There is no exception for Cambodian teachers, they also experienced that ways of receiving and providing knowledge or education (Maeda, 2003). But now, since 2001 that the CFS has been introduced into the country, it has rotated Cambodian teacher to get to know other ways of working. The CFS is an approach made up based on the Child Rights, and at the same time it calls for cooperation from parents and guardians of every pupil aiming at helping bring up children to be equipped with knowledge, skill, attitude, value, and morals as well as good physical and emotional health. The CFS is of 6 dimensions: (1) All children have Access to Schooling (Inclusive for All Children), (2) Effective Teaching and Learning, (3) Child Health, Safety and protection, (4) Gender Sensitivity/Responsiveness, (5) Participation by Children, Families and Communities, and (6) Programme Support from the Education System.

The policy provides no gap between the rich or the poor, male or female. Every child can go to school together without discrimination. Moreover, it mentions also about how to learn, about community participation as well as school evaluation. Ways of carrying out the education methods in the CFS are based on the 4 compassions of Buddha: (a) Empathy, (b) Kindness, (c) Equanimity, (d) Feeling arising from seeing the reduction in suffering of others. These compassions are deeply absorbed into Cambodian people through Buddhist's rule since the ancient time and continue till present education. On the other hand, the Cambodian government has developed school curriculum but it is more about number of learning hours, learning

textbooks only, the details of education contents as well as education methods is less or not mentioned (MoEYS, 2004). With this context, the CFS is the first policy that mentions about teacher's important role in education. In the interview in Phase 3, a director of an urban primary school evaluates the CFS as below.

It helps teachers try to pay more attention on classes than before. Pupils' knowledge gets higher. And parents give respects to school and teacher more than it was.

However, as mentioned previously, Cambodian teachers experienced way of teaching and learning by heart, so the CFS's way of teaching and learning has rotated them very differently. The deputy director of PoE mentioned that:

Many teachers are unable to coordinate in group learning of pupil because they do not have experience with this style. They can't even catch up pupils' learning condition, so they cannot carry out proper group learning in their classes.

And the school director of the rural primary school said: it is difficult to carry out because we don't have materials to use. As heard earlier, there remain many things to be considered such as teacher's understanding and knowledge, skills, and educational facilities; otherwise implementing the government's policy including the CFS will not be able to show the acceptable outcomes. In the interviews, the study found out current state, issues and challenges of implementation of the CFS policy as following: (a) Shortage of Teachers and Facilities at School, (b) Awareness of the importance of improving the quality of education, (c) Various living conditions of teachers and pupils, (d) Poor communication between school and community, (e) Poor communication among educational officers at all levels, (f) Inadequate monitoring access to the CFS schools, (g) Issues in implementing the CFS policy, and (h) Limited training for teacher.

4.3 Teachers' Perspectives Concerning the INSET Program: Case A

Respondents in Case A were mixed education staff from school level to central level. In brief, they indicated explicitly in the questionnaire conducted in Phase 5 regarding the importance of in-service teacher training course. This questionnaire was developed based on documents collected during Phase 4 in addition to existing literatures written in English, Japanese and in Khmer languages. To reveal the awareness of the significance of in-service teacher training: INSET, a question: 'is in-service teacher training important for improving

teacher's quality and teacher's status?' is also designed in the survey with six choice scales of answers are provided: very important, quite important, moderately important, not so important, not important at all, and I do not know. As result, although the 12 (6.9%) respondents out of the total respondents (N = 173) do not choose any optional answer, 150 (86.7%) answer 'very useful,' whereas 9 (5.2%) answer 'quite useful,' and the other 2 (1.1%) answer 'moderately useful.' This is a positive awareness and recognition of respondents toward the significance of the in-service teacher training program for their professional development.

4.4 Teachers' Perspectives Concerning the INSET Program: Case B

It is believed that teachers are of first-hand knowledge and skills of strategies and programs being implemented and thus are an invaluable source when planning in-service days for professional development. Moreover, it is suggested that cross-curricular models of inservice can provide teachers flexible ideas for understanding contents raised by teachers from other grade levels, both below and above; so teachers will work together to improve their teaching and student's learning achievement as well as quality education system as the whole, and stop the isolation in their professional development opportunities within an existing shareable network. Noticeably, in a section of the results of Phase 7 showing respondents' perspectives in Case B (N = 189) whose respondents were primary school teachers in 18 schools in "Y" province only, it indicated that those provided training to teachers were the Cascade Training Model which is far different from the above suggestion. However, it showed similar results to those in Case A that more than 90% of them acknowledged in-service teacher training as an important tool for improving teacher's quality and teacher's status.

4.5. Empirical Directions for a Sustainable INSET Program Framework for Primary School Teacher in Cambodia

In regards of in-service training, the priorities can be decided for promoting teachers in the different types and purposes (Leavitt, 1992): induction of new teachers, courses for certification, upgrade professional knowledge, based on individual teacher, in pair, in small group or in large group through direct or distance training including via radio, television, telephone and media. Such these, the courses can be optional or required, theory- or practice-oriented, planned by teachers or administrators, located in or out of school. In this study, based on empirical results and logical implications from all Phases of the surveys, it implied that sustained in-service training for teacher's CPD can be made within the cluster school if it is well-

prepared in the existing school 'Plan' which is commonly used for all schools within a cluster. The directions share knowledge and similar findings with the study of Drinan (2015).

In Cambodia, there is a concrete plan for schools to implement the CFS policy. In the surveys for the present study, teachers and even school director were unable to explain many activities mentioned in the Plan. It is arguable that teachers have not involved with planning the Plan nor read many pieces of it. Although there are many problems needed to solve, teachers have not taken part in the activities actively. There might have one reason, that is because of unclear objective of the plan and teachers have not got aware of it. This makes teachers stay away from their roles and responsibilities. Existing literatures, according to Bray (1987) and MoEYS (2010a), indicated that cluster school is organized aiming to address four purposes: (1) Economic purpose, (2) Pedagogic purpose, (3) Administrative purpose, and (4) Political purpose. Yet, these purposes have not been reached in school education and especially in understanding of teachers and school leaders in recent Cambodia in the 21st century.

Depending on the results of the surveys in this study and in addition to existing official documents as well as related research articles and papers, it pointed out the directions to designing a proposed model that can be implemented in many various stages and steps of professional development. Stage refers to Beginning teachers, Middle teachers, and Professional Teachers. Step refers to the process of professional development of those teachers. Regarding to the topics of training, in order to make decision on 'what and how' in a professional development of in-service teachers, it is necessary to relate to four concepts: 'Hard content and Soft content' Versus 'On-line and On-site'. Hard content refers to training for producing teaching materials and other visual aids. Soft content refers to training for acquiring new knowledge, new teaching methods, new skills, etc. Online refers to training opportunities that conducted online with official of two or more educational layers and more importantly by teachers themselves. On-site refers to training opportunities that will be conducted on-site at a school or cluster or district or province or somewhere else when participant can join directly, both inside and outside their own schools or their school cluster. Finding out a more effective way of TPD is an old concern of education stakeholders, yet it remains issues and problems to be solved in this recent content and context in this 21st century teacher education (Varela, 2012; Hanushek, 2014; Brezicha, 2015; Darling-Hammond et al, 2017; and Hefnawi, 2017).

5. Conclusion, Limitation of the Study and Future Research

In sum, a sustainable system model of proper-and-feasible CPD opportunity for teachers gets evidently crucial and urgently needs to be structured in accordance with actual situation and availability of resources. For example: *a) appropriate structure, b) influential policies, c) actionable procedures, and d) sustainable practice* of INSET programs (IRA, 2008). To this mean, it is considerable to making use of existing planning that raises awareness and participation of teachers in order for making CPD happen regularly with their school or their school cluster. One of the reasons behind this goal are objective to not only empower teachers but also to empower pupils' potential for they deserve to receive at least basic quality education with well-trained teachers (UNESCO, 2016).

The study contributes to existing studies on sharing examples from rural school in Cambodia, which are crucial not only for researchers, policy makers in teacher education and other educational stakeholders, but also for teachers themselves concerning their commitment and motivation to involve in solving this matter. It sets light timely as a roadmap for an initiative to taking more effective and efficient policies/actions in teacher education, specifically in term of in-service education and training program for primary school teachers in rural Cambodia.

The study had utilized a wide range of sources as its own characteristics as a timely empirical study. However it reached mainly primary school teachers in some small parts of rural areas of Cambodia and the author less discussed about the role of education in a broader context (Kariko, 2017), so the author would suggest some tasks for further study: a) extend to larger survey samples, b) test the designed framework to see how effective and efficient it will be and to what extent it will get sustainable, and c) find ways such as by using Delphi Methods to raise awareness from more teachers to make more acceptable decision in their career, from community people to support teacher education, and from stakeholders to provide timely supports to (rural) teachers.

^{*}Before:, and from stakeholders to provide timely supports to (rural) teachers

^{*}After:, and from stakeholders to provide timely supports to (rural) teachers: for example by conducting surveys with experts and policy makers to strengthen the feasibility of proposed in-service training design.

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