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## **A Comparative Analysis of the Effectiveness of Teacher Support Approaches in Afghanistan**

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A Comparative Analysis of the Effectiveness of Teacher Support Approaches in  
Afghanistan

A Thesis Presented

By

Noorullah Noori

Submitted to the Graduate School of the  
University of Massachusetts Amherst in partial fulfillment  
Of the requirements for the degree of

Master in Educational Policy, Research and Administration

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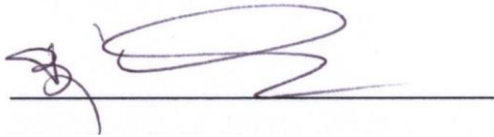
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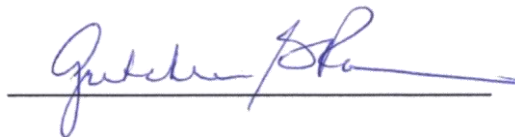
By

Noorullah Noori

Approved as to style and content by:



Bjorn Harald Nordtveit, Academic Advisor



Gretchen B. Rossman, Department Chair  
Educational Policy, Research and Administration

## **DEDICATION**

I dedicate this research to my kindhearted father Noormohammad Khan, caring sister Nilofar Noori, devoted wife Manila Noori, adorable daughter Arzo Noori and lively sons Dariush Noori and Korosh Noori.

## ACKNOWLEDGEMENT

This research project would not have been possible without the support of many people. I would like to express my great appreciation to Dr. Bjorn Nordveit, my academic advisor, for his valuable and constructive feedback during the planning and development of this research work. I appreciate his willingness to devote his time so generously for reviewing this research paper. I would like to express my sincere gratitude for his patient guidance, enthusiastic encouragement and helpful critiques of this research work.

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## ABSTRACT

### A Comparative Analysis of the Effectiveness of Teacher Support Approaches in Afghanistan

Master in Educational Policy, Research and Administration, May 10, 2013

Noorullah Noori, B.A., Baghlan University, Afghanistan

M.Ed., UNIVERSITY OF MASSACHUSETTS AMHERST

Academic Advisor: Professor Bjorn Harald Nordtveit

This research explores the effectiveness of three teacher professional development (TPD) approaches in the context of Afghanistan: 2-year in-service teacher education; short-term (ad-hoc) teacher training; and teacher learning circles (TLC). In this research, I compare these three models, their impact on improving teacher quality and subsequently student outcome. I applied the mix-methods approach by using three different research tools: *classroom observations*, self-administered *questionnaires*, and *semi-structured interviews*. I also reviewed student performance records over four semesters; from 2010 to 2011. Despite many challenges, the results show three core strengths of each of these models: the 2-year in-service teacher education improves teachers' subject knowledge; the short-term training (focusing on specific subjects, grades, and groups of teachers) increases teachers' pedagogic skills; and TLCs provide teachers with ongoing learning opportunities inside their schools through which teachers find help to address their day-to-day classroom needs. The findings suggest TLCs to be embedded in the school and teacher education (in-service program) structure; teachers to be provided with short-term professional development trainings focused on specific groups of teachers, as well as to conduct continuous teacher evaluation based on teachers' performance and their students' achievements. The overall result of this research challenges the underlying assumptions of the Ministry of Education (MOE) related to teacher change. It also critiques the approaches so far undertaken by the MOE for improving teacher quality in the country.

#### **Keywords**

- teacher professional development; 2-year Teacher Training College; short-term teacher training workshops; teacher learning circles, Blended Learning and Professional Development

## TABLE OF CONTENTS

DEDICATION .....	iv
ACKNOWLEDGEMENT .....	v
ABSTRACT.....	vi
LIST OF TABLES .....	ix
LIST OF FIGURES .....	x
ABBREVIATIONS .....	xi
CHAPTER 1: INTRODUCTION .....	1
1.1 Introduction.....	1
1.2 The Problem with TPD in Afghanistan .....	3
1.3 Research Questions .....	4
1.4 Significance.....	5
1.5 Theoretical Framework.....	8
CHAPTER 2: AN OVERVIEW OF THE CONTEXT.....	14
2.1 Context.....	14
2.2 Teacher Education Program.....	16
CHAPTER 3: LITERATURE REVIEW .....	18
3.1 Teacher Change .....	20
3.2 Teacher Professional Development – A Dilemma.....	30
CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY .....	42
4.1 Sample.....	44
4.2 Data Collection .....	45
4.3 Data Analysis .....	51
CHAPTER 5: FINDINGS .....	53
5.1 Two-Year In-service Teacher Education .....	53
5.2 Short-term Teacher Professional Development Training .....	64
5.3 Teacher Learning Circles .....	72
5.4 Which Approach Better Works.....	82
CHAPTER 6: RECOMMENDATIONS AND CONCLUSION .....	91
6.1 RECOMMENDATIONS .....	91
6.2 IMPLICATIONS .....	97
6.3 CONCLUSION.....	100
REFERENCES .....	102

APPENDICES .....	110
A. Informed Consent.....	110
B. Teacher Observation Form.....	111
C. Questionnaire for Short-term Training Workshops .....	114
D. Questionnaire for Teacher Learning Circles .....	116
E. Questionnaire for 2-year Teacher Training College Graduates .....	118
F. Basic Information of Teachers Observed (Using Observation Forms) - Total 30 Participants.....	120
G. Basic Information of Teachers Completed Questionnaires - Total 108 Participants.....	121

## **LIST OF TABLES**

Table 1- Research Project Timeline.....	44
Table 2 - Research Sample .....	45
Table 3 - Data Collection Procedures .....	48
Table 4 – Overview of Research and Data Collection Methods.....	51
Table 5 - Data Analysis Procedures.....	52
Table 6 – TTC In-service Program: Student Drop-out .....	61
Table 7 - Short-term TPD Training: Student Drop-out .....	70
Table 8 – TLC: Student Drop-out (Student Document Review).....	80

## LIST OF FIGURES

Figure 1 – Research Conceptual Framework.....	10
Figure 2 – MOE’s Dominant Theory of Change - Improving Teacher Performance and Student Outcome.....	12
Figure 3- TTC In-service Program: Teaching/Learning Activities and Assessment (Observation Forms).....	56
Figure 4 - TTC In-service Program Effectiveness (Questionnaires).....	59
Figure 5 – TTC In-service Program: Student Performance (Student Document Review).....	60
Figure 6 - Short-term TPD Training: Teaching/Learning Activities and Assessment (Observation Forms).....	65
Figure 7 – Short-term TPD Training Effectiveness (Questionnaires).....	67
Figure 8 - Cascade model used by MOE TEP - BESST Project Phase I.....	68
Figure 9 - Short-term TPD Training: Student Performance (Student Document Review).....	69
Figure 10 –Teaching/Learning Activities and Assessment (Observation Forms).....	77
Figure 11 - TLC Effectiveness – (Questionnaires).....	78
Figure 12 – TLC: Student Performance (Student Document Review).....	80
Figure 13 - Teachers Preference (Questionnaires).....	83
Figure 14 - Relationship to Day-to-Day Classroom Needs (Questionnaires).....	84
Figure 15 - Impact on Subject Knowledge (Questionnaires).....	85
Figure 16 - Impact on Pedagogic Skills - Part I (Questionnaires).....	85
Figure 17 - Impact on Pedagogic Skills - Part II (Questionnaires).....	86
Figure 18 - Student Performance (Pass and Fail) along 4 Semesters (Student Document Review).....	87
Figure 19 - Student Drop-out within 4 Semesters (Student Document Review).....	88

## **ABBREVIATIONS**

AIDS	Acquired Immune Deficiency Syndrome
AKF	Aga Khan Foundation
ANOVA	Analysis of Variance
AREU	Afghanistan Research and Evaluation Unit
AUSAID	Australia Agency for International Development
BESST	Building Education Support Systems for Teachers
BLPD	Blended Learning and Professional Development
BRAC	Bangladesh Rural Advancement Committee
BTSP	Beginning Teacher Support Program
CAII	Creative Associates International Incorporate
CEO	Chief Executive Officer
CIDA	Canadian International Development Agency
CIE	Center for International Education
CSO	Civil Society Organization
CSO	Civil Society Organization
DAD	Development Assistance Database
DANIDA	Danish International Development Agency
DCEO	Deputy Chief Executive Officer
DEO	District Education Offices
ECS	Education Commission of State
EFA	Education For All
EMIC	Exploring Mathematics In Classrooms
EMIS	Education Management Information System
ERIC	Education Research and Information Center
ESOL	English for Students of Other Languages
FTI	Fast Track Initiative
GED	General Education Development
GIZ	German Society International Cooperation
GoA	Government of Afghanistan
HR	Human Resource
INGO	International Non-Governmental Organization
IT	Information Technology
JICA	Japan International Cooperation Agency
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MOE	Ministry of Education
MOHE	Ministry of Higher Education
NAEP	National Assessment of Educational Progress
NDS	National Development Strategy
NDSO	National Development Support Organization
NESP	National Education Strategic Plan
NGO	Non-Governmental Organization

NSDC	National Staff Development Council
OITPD	On-going In-school Teacher Professional Development
PD	Professional Development
PED	Provincial Education Department
PLC	Professional Learning Community
R&D	Research and Development
R&E	Research and Development
SIA	Standard Inventory Assessment
SPSS	Statistical Package for Social Sciences
TED	Teacher Education Directorate
TEI	Teacher Education Institute
TEP	Teacher Education Program
TES	Teacher Education System
TLC	Teacher Learning Circles
TPD	Teacher Professional Development
TRC	Teacher Resource Center
TRCT	Teacher Resource Center Trainer
TTC	Teacher Training College
TTD	Teacher Training Department
UKAID	United Kingdom Agency for International Development
UMass	University of Massachusetts
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children Emergency Fund
UPE	Universal Primary Education
USAID	United State Agency for International Development
WB	World Bank

## CHAPTER 1: INTRODUCTION

### 1.1 Introduction

This study compares the effectiveness of three teacher professional development approaches in the context of Afghanistan. These approaches include 2-year in-service teacher education, short-term ad-hoc teacher training workshops, and teacher learning circles (TLC). This study also explores teacher education policies, their impact on improving teacher quality and, thus, student achievements through a comparative evaluation of the above three teacher professional development approaches.

The findings of the study highlight strengths and weakness of each of these Teacher Professional Development (TPD) models. For instance, the results indicate that TLC (as a school-based continuous teacher support model) is a useful approach that provides teachers with the opportunity for learning on the job, through creating a collaborative teacher learning environment that is ongoing. The study also found out that the 2-year in-service teacher education improves teachers' subject knowledge while short-term teacher trainings, if focused on specific groups of teachers and levels (such as primary, secondary or high schools) help teachers improve their pedagogic skills. However, there are many policy and structural implications for each of these models to further their effectiveness as well as to be feasible across the country (e.g. urban, semi-urban, and rural areas) in the long run.

Based on recommendations of the research participants (teachers), this study suggests a blended teacher professional model through which teachers are likely to have access to school-based ongoing support (TLCs), formal teacher education program as well as project-based teacher training opportunities. Based on the results and teachers' recommendations, when the formal 2-year teacher education and short-term teacher training opportunities are combined with the potential of reflection, collaboration, peer observation, thoughtful

discussions and formative peer-evaluation – that are strongly promoted through TLCs - the educational and improvement possibilities for teachers are multiplied.

The main purpose of this research is to explore the effectiveness of the above three TPD approaches (i.e. how each one addresses the professional needs of teachers, improves their effectiveness inside the classrooms and, as a result, increases students' learning outcome). This research paper is presented in six chapters:

- 1) The *introduction* describes the logical framework of this research including a description of the problem, questions that guided this study, significance of this research, and the research conceptual framework.
- 2) *An overview of the Context* explains the context (Afghanistan) in which this study was conducted, teacher education background (policies, programs and projects) in the country, and briefly explore the teacher education challenges that the Ministry of Education (MOE) and Teacher Education Department (TED) currently face.
- 3) The *Literature Review* involves an overview of the topic (i.e. teacher change, teacher professional development approaches, strategies and models, etc.) using theoretical and empirical research findings.
- 4) *Research Design and Methodology* discusses the design of this study, the methods and tools I used for collecting and analyzing the data, as well as the research participants.
- 5) The *findings* present the analysis of the data I collected from the field. For this study, I used the mixed-methods approach. Thus, the analyses comprise qualitative and quantitative presentations of the results.
- 6) The *recommendations and Conclusion* discusses the findings. It also involves recommendations and implications based on the research findings. This chapter will finish a conclusion for the whole paper.

## 1.2 The Problem with TPD in Afghanistan

MoE has spent millions of dollars, invested tremendous resources and used various approaches to improve teaching quality of teachers, assuming that it will result in improved student performance. However, there has been no rigorous research in Afghanistan to document the impact of these investments. In other words, all project and program evaluations have focused on *accountability*; implementing-partner national and international organizations (INGOs) have to conduct outcome evaluations after the end of projects or programs only to report on their achievements as compared with the set project/program objectives. There are no comparative studies conducted in the country so far with the intention to *explore* the substantial factors that influence teacher improvement. A majority of the evaluations are aimed to justify project achievements and or ask for extension of the activities. Therefore, there's a lack of robust information on which model works best to effectively support teachers in the long term.

The MOE has shown little ability to set strategies and programs that address professional needs of various groups of teachers in different settings, under different conditions. MOE teacher education also lacks sound mechanisms for measuring the improvement of teachers (lack of teacher evaluation mechanism), connecting teacher support opportunities with school curriculum, classroom needs of teachers and student learning. In this research, I use the mixed-methods approach (quantitative and qualitative) in order to identify and measure the effects of the above three approaches related to teacher change in Afghanistan. The findings of this study will help and enable MOE to design and implement teacher professional development programs and projects, using meaningful and cost-effective approaches that support improvement in teachers' performance and students' achievements in the long term. The findings of this research highlight the following problems related to each approach.

1. Being fixed, content-centered and highly theory-based, the formal TTC curriculum is not responsive to individual teachers' professional needs in their different school settings. Also, the vast majority of teachers live and work in rural and semi-urban areas and, thus, do not have access to TTCs since all TTCs are located in either provincial and or district capital cities.
2. Most of the short-term training (usually project-based TPD interventions) are designed and applied based on presumed responses to teachers' professional needs (problem-based approach) – with minimum identification of the influential factors related to teacher change in different contexts. Much of these are developed based on assumptions about teachers' needs in contexts other than Afghanistan.
3. Although teachers learn better when working with their colleagues in a collaborative environment, TLCs lack continuous technical support, especially from TTC in-service program, and are not embedded in the structure of schools. They lack resources, supervision, evaluation and, as a result, sustainability.

### **1.3 Research Questions**

From a brief review of various teacher support initiatives that have been taken by the MOE and its partner national and international organizations, four issues emerge from the literature as essential for further inquiry to advance understanding of effective teacher professional development. First, it is necessary to know how an effective TPD model can be designed and implemented so that it ensures school-based, on-the-job PD – a model that focuses on teachers' day-to-day work. Second, it is crucial to know how teachers' collaborative skills can be supported by integrating various approaches and experiences; such as TLC, short-term teacher training interventions, and 2-year in-service program. In the literature reviewed, in chapter three, school-based communities of practice (TLCs) model is suggested as one of the most useful professional development (PD) approaches that foster

teachers' engagement, collaboration, and sense of community. Why teachers lose their motivation and never become engaged in school-based PD (TLC) activities – in other words, what are the reasons teachers do not participate in collaborative activities? Third, we need to understand how teachers, as a result of a TPD intervention/support, transform their attitude, belief and classroom practice. The fourth emerging issue is how we can design an effective teacher support model so that it impacts on the learning quality and outcome of students' performance. The above four issues led to the formulation of these research questions:

1. Which of these three professional development approaches result in actual beneficial, or intended, changes in teacher subject knowledge?
2. To what extent do any of these TPD models improve the teachers' pedagogical practice?
3. How can we determine that teachers' participation in any of these three professional development opportunities results in improved student learning?
4. After comparing the three TPD models, what parts of each can be adapted and/or combined to create a feasible and sustainable professional development model in the context of Afghanistan?

#### **1.4 Significance**

Teacher preparation and professional development have been the pervasive challenges in Afghanistan for decades (Ministry of Education, 2010). So far, different approaches have been taken to address this challenge by the Ministry of Education (MoE) and national and international non-governmental organizations (NGOs).

The demand for effective and qualified teachers in the country has consistently increased since 2001 due to population growth, high (average 50) student-teacher ratio (Ministry of Education, 2011, p. 35), student enrolment (Islamic Republic of Afghanistan, 2005, p. 31) as well as teacher attrition rates in the country. According to the Ministry of

Education, 73% of teachers lack the minimum required qualification of grade 14 (2010, pp. 1-2). Among many, the three core approaches that the MoE has taken to respond to the need for improving teacher quality constitute the focus of this comparative evaluation (research).

Below, I briefly describe the three approaches (in this study, independent variables).

- 1) *In-service Teacher Education Program*: This is a 2-year formal teacher education (in-service) program provided by government for all teachers in the country. It is considered as the minimum required qualification for teachers. The in-service training program is conducted within Teacher Training Colleges (TTCs) that are located in the capital cities of provinces and, in some areas, districts. In the recent years, MOE increased the number of provincial and district-based TTCs significantly in order to provide access to under-qualified teachers for furthering their qualifications. For clarification, this research focuses on in-service program, not pre-service.
- 2) *Ad-hoc Short-term Teacher Professional Development Trainings*: These are short-term (maximum 2-week long) trainings aimed to deliver specific subject-matter and or general pedagogic skills for teachers to address their professional needs. These include national level Teacher Education Program (TEP) training interventions from 2005 to 2011. The TEP initiative intended to improve teachers' quality across the country. An example of the TEP component is the Building Education Support Systems for Teachers (BESST) project (2007-2011) that was implemented nationally.
- 3) *School-based Teacher Learning Circles (TLCs)*: These are groups of teachers within schools that were formed through BESST project in all schools throughout the country. The purpose for setting TLCs was to encourage teachers work together in groups and help each other become better practitioners. The goal was to provide teachers with an ongoing in-school support opportunity for improving their

effectiveness. These were first implemented by BESST in 11 provinces and, later, expanded in 23 provinces by the World Bank.

This study aims to compare the effectiveness of the above three TPD approaches by identifying, measuring and comparing factors related to each of the approaches which influence teacher effectiveness, continuous improvement and their effects on students' achievements. In this paper, my main focus centers around teaching quality influenced by the above approaches. As articulated by Tatto et al. (1991, p. 6), by quality teaching I mean:

- Effective use of time;
- Command of the subject matter;
- Ability to present the subject matter to pupils in a way they can comprehend;
- The frequent use of test and quizzes to monitor pupils progress;
- Systematic attention to weak spots in the pupils' learning patterns;
- Empathy with pupil concerns that often extend far beyond the formal curriculum; and
- Effective communication with fellow teachers, school officials, the broader school community and, especially, parents.

It is highly important for any TPD model to address the above aspects of effective and quality teaching. The above description of quality teaching also addresses the first three research questions; that is, subject matter, pedagogical practice, students' performance. By identifying, measuring, and comparing the leading factors for each of the three TPD models, we will be able to comprehend the 1) core factors that affect teacher improvement, and 2) the most appropriate, promising, long-term and cost-effective approach for teacher improvement in the context of Afghanistan. Providing such an understanding will help MOE undertake the most appropriate, useful, feasible and cost-effective approach to help teachers improve their quality of performance in the long run. In other words, this research will inform MOE and policymakers of the pivotal factors and dynamics that influence teacher change in different

settings. The results of the study will help MOE and policymakers to design and implement professional development initiatives that help different groups of teachers with different needs in different contexts.

### **1.5 Theoretical Framework**

Teacher professional development has been the focus of the MOE and its national and international partners, particularly, since 2003. Other than project evaluations that aim for reporting project accomplishment (accountability), almost no studies have documented the above three core approaches impact, cost, and effects. In other words, most often, TPD evaluations assess participants' satisfaction; whether or not they learned the content of the training – if the treatment is training – and or their opinion of the professional development experiences provided through the project/program – i.e. whether or not they are satisfied.

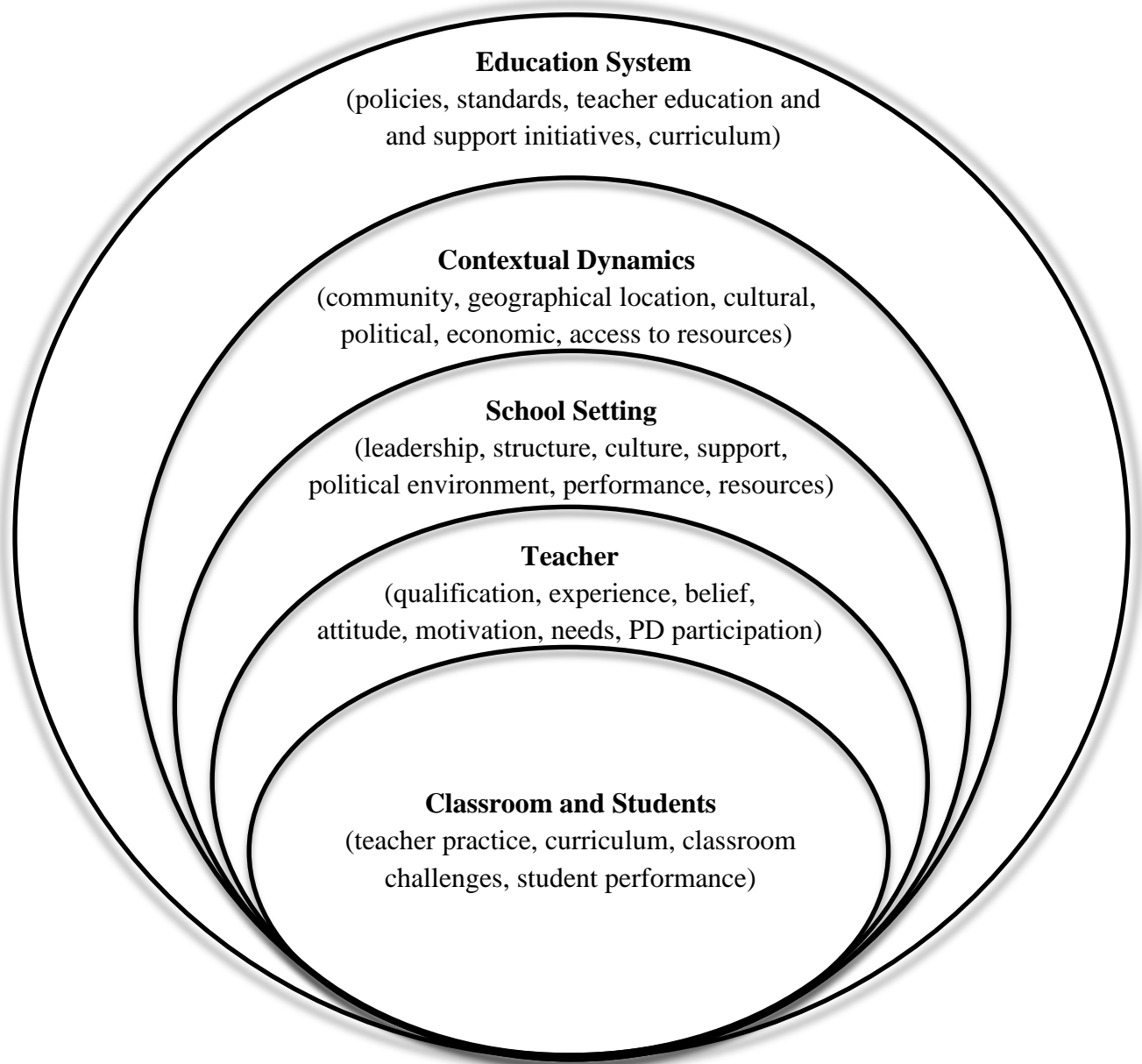
Studies and evaluations of TPD should focus on learning about the influence of professional development interventions and or activities as well as on measuring its impact on student achievements. For instance, Guskey (2000, 2002) proposes a model for evaluating TPD that consists of five levels of gathering information about teacher learning, professional development and change. The model implies a hierarchy of activities that constitute levels from simple to complex. These levels include 1) participants (teachers) reaction, 2) participants learning, 3) organization support and change, 4) participants use of knowledge and skills, and 5) student learning outcomes.

This research is designed, based on the widely review of literature, to include five critical levels of Guskey's PD evaluation and teacher change. This comparative research involved 150 volunteer teachers, 3 head-teachers, 3 teacher trainers, 3 TTC faculty members, and 62 students. The tools used for this study included using questionnaires, semi-structured interviews, observations, checklists and student document reviews. The study findings emphasized job-embedded professional development, using a blended learning professional

development model, as a critically supportive approach for teacher growth and student achievement. The findings of this study also confirm the literature on the systemic approach for setting up a sustainable and effective TPD system, ensuring teacher professional improvement. The systemic approach accentuates looking at all possible actors within and outside the school setting, classroom and TPD interventions that influence teacher change and, thus, student learning.

A systemic lens enables me to study highly complex and large scale problems, particularly the TPD. Teachers work in highly complex social settings; i.e. schools, communities, geographical and social contexts that are different from each other. Using a systems view framework enables teacher education policymakers to integrate various disciplines within a single coherent framework. In a larger picture, “systems and complexity theories are two valuable perspectives that can equip organizational leaders with the requisite knowledge and understanding of how to respond and adapt to the uncertainties and demands of ... [necessary and relevant] change [that is responsive to contextual needs of teachers]” (Amagoh, 2008, p. 1).

A school influences its external environment and is, meanwhile, influenced by its external environment consistently. Environment, or context, in which a school operates, includes all the things that surround it; including many different dynamics (e.g. society, culture, economy, politics, security, religion, education, etc.). Each of these dynamics significantly affects school and, thus, teacher performance, belief and attitude. “The notion of the degree of “affect” helps us to differentiate between the general environment [that is the general context in which the school operates] and the systemic environment [that is the units of the education system which are connected and or embedded and that work together in order for the whole system to continue functioning]” (Banathy, 1992, p. 28).



**Figure 1 – Research Conceptual Framework**

According to Banathy (1995, p. 17), a systems view enables us to explore, understand and describe:

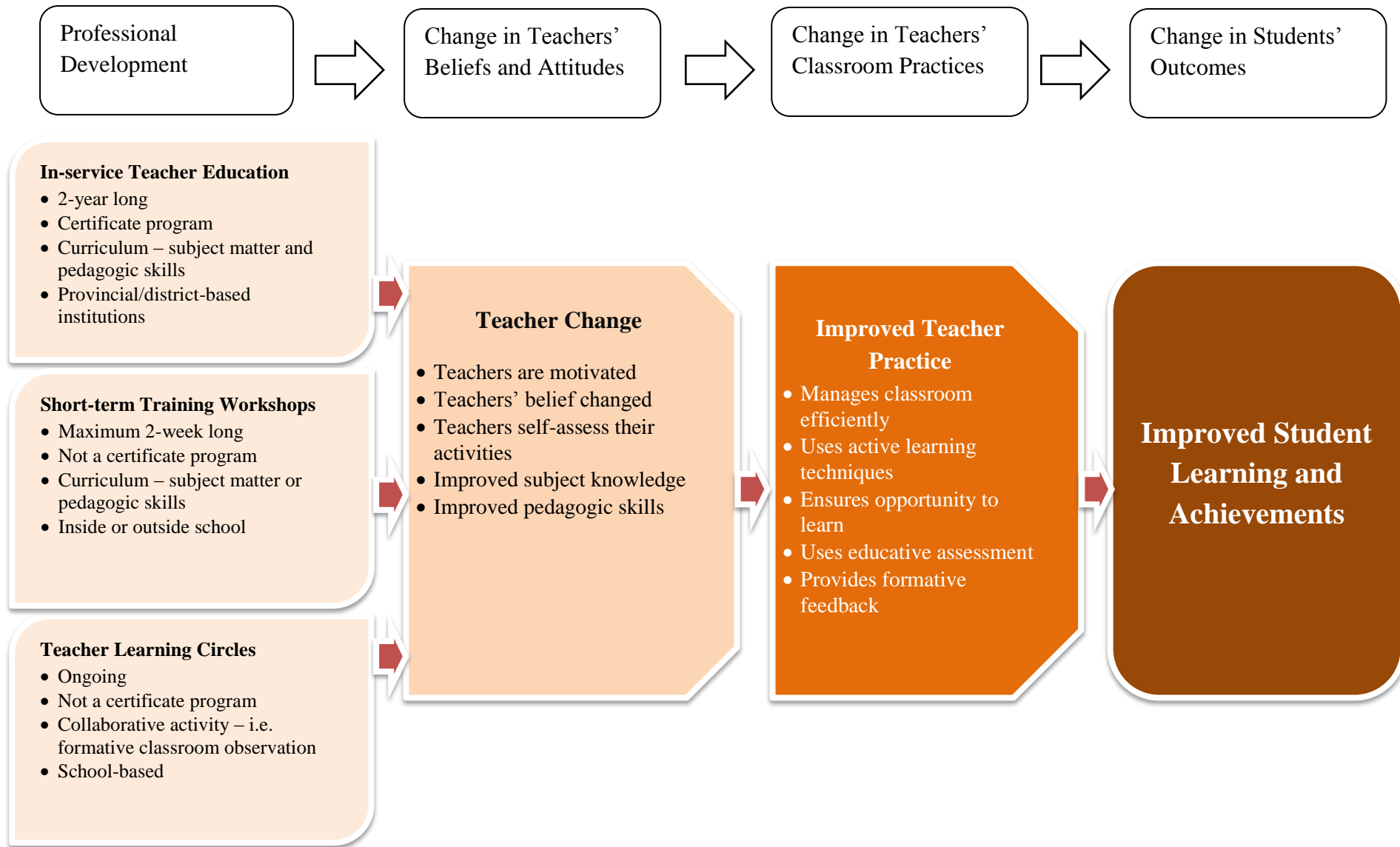
- the characteristics of the *embeddedness* of systems operating at various interconnected levels, their relationships, and mutual interdependencies;
- the purposes and boundaries of the system of interest;
- the relationships, interactions, and information/matter/energy exchanges between the system of interest and its environment(s);

- the dynamics of interactions and *connectedness* among the components of the system and their patterns of relationship;
- the properties of *wholeness* and characteristics that emerge at various system levels as the result of systemic interaction and synthesis; and
- the behavior and change of the system, its environment, and its components through time.

Without a clear understanding of the “larger picture” of the setting in which teachers work, policymakers and leaders tend to focus only on the behaviors and events associated with problems in the workplace, rather than on the systems and structures that caused the problems to occur in the first place (McNamara, 2006). A systems view helps us explore and understand the overall structures and dynamics that influence teacher performance, motivation and commitment. Without a clear understanding and taking into consideration of all internal and external dynamics, it is difficult to know what to communicate and to whom.

A systems view often makes the policy development and planning processes much clearer and orderly. The systems view, used in this study, promotes focus on achieving overall results of the TPD policy and interventions (all three target approaches), so the day-to-day details of managing the process, support or result do not become the most important to address.

As shown in the previous page, the conceptual framework undertaken in this research critiques the generally used theory of change applied by the MOE and its major national and international partners in the country. The following figure displays the MOE’s simplistic linear theory of change for teacher change, professional development and, thus, increasing students’ achievements.



**Figure 2 – MOE's Dominant Theory of Change - Improving Teacher Performance and Student Outcome**

To summarize, the MOE's teacher change theory suggests that each of the research questions is an independent variable while the theoretical framework (systems view) used in this research looks at the research questions as dynamics that interact among one another, as well as interacting with many other dynamics that influence the whole process in different settings.

This research uses complexity and systems-view theoretical lenses that inform my theoretical framework (based on Gusky's Model).

## **CHAPTER 2: AN OVERVIEW OF THE CONTEXT**

Alongside various teacher support initiatives, in a collaborative effort, MOE and its partner organizations (e.g. USAID, WB, CIDA, UKAID, JICA, AKF, JIZ, UNDP, UNICEF, UNESCO, and many local and INGOs) formulated the ‘teaching quality improvement’ policy in order to address teachers’ need across the country. The policy was implemented through a six-year-long national level program (2006-11) known as Teacher Education Program (TEP). The policy aimed to address immediate needs of teachers and improve their teaching effectiveness. This initiative constituted of two short-term (2-week long) training workshops. The training workshops had two key components: 1) general pedagogy, and 2) subject-matter. Based on this policy, all teachers throughout the country (over 172,000 teachers) took these two mandatory training workshops. The first phase of the program covered 11 provinces and was funded by USAID. The first phase was implemented by Creative Associates International Inc. (CAII), a US-based corporation, as the prime contractor and 6 national and international NGOs as sub-contractors. The first phase was known as Building Education Support Systems for Teachers (BESST). The second phase covered the rest 23 provinces and was funded by World Bank. This phase was implemented by a consortium of corporations and I/NGOs.

### **2.1 Context**

Afghanistan has a remarkably centralized education system with almost all key decisions made in Kabul, the capital city. The provincial and district education offices have limited decision making authority. From curriculum development to teacher training, approving the recruitment of teachers and school heads, selecting and producing training materials (textbooks), and, especially, controlling financing and spending, the central government (MOE) almost entirely dominates the scene (Human Rights Watch, 2006).

Since 2001, the number of students significantly increased, and the demand for teachers put MOE in a challenging position. “For example, in 2005, it was estimated that the country would require additional 30,000 to 58,000 teachers to meet the demand that was expected to rise by 2007” (Menon, 2008, pp. 6-7). According to Sigsgaard (2009), the number of teachers has risen seven folds, but their qualifications are low and only 28 percent are women. As impressive as this accomplishment was, it is now apparent that, in almost every case, quantitative expansion came at the expense of educational quality. In a 2005 survey, in northern Afghanistan, 200 teachers were asked to take the same exams as their students did. The results were shocking as only 10 of these (5%) passed the exams. Since 2007, improving the quality of education has become just as essential as increasing access.

Also, the demand for effective and qualified teachers in the country consistently increases due to population growth, high (average 50) student-teacher ratio (Ministry of Education, 2011, p. 35), high gross enrolment (Islamic Republic of Afghanistan, 2005, p. 13), as well as high teacher attrition rates. Providing new teachers has not been the only challenge for the MOE as a large number of practicing teachers in schools were under-qualified who needed immediate attention (i.e. support and professional development). According to the MOE, one of the key challenges for this institution is to improve the quality and to upgrade 73% of teachers who lack the required minimum official qualification of grade 14 (Ministry of Education, 2010, pp. 1-2). On the other hand, variety in types of schools (e.g. public, private, community-based and madrasas) makes it even harder for the MOE to target specific groups of teachers for specific professional development purposes.

In the recent years, the MOE has undertaken various approaches to reach individual teachers throughout the country to address their professional needs and, thus, to improve their

teaching quality. The literature on teacher change tells us that, although all teacher training programs have been created to influence the knowledge, skills, and attitude of teachers, research has shown that not all are equally effective in doing so (Tatto et al., 1991). Moreover, it is not clear that the costs expended on the programs are justified by their outcomes. Some of the most expensive programs may be among the least effective and vice-versa. In the context of Afghanistan, although TPD opportunities have significantly increased, our knowledge of the content, features and effectiveness of TPD has proportionately not increased.

A considerable amount of literature support the in-service TPD as having a “significant positive impact on teachers’ beliefs and practices, students’ learning and the implementation of educational reforms” (UNESCO Institute for Statistics, 2006, p. 71), a large part of the evidence focus on teachers and the change in their attitude. However, it is crucial to learn the impact of TPD on, not only teachers’ practice and knowledge but also, “student retention, achievement, and attainment, is needed” (USAID, n.d. p. 4).

## **2.2 Teacher Education Program**

In 2005, the Ministry of Education (MoE) formulated the teacher education policy that intended to address the needs for improving teaching quality of teachers throughout the country. This was then applied through a national level teacher education program (TEP). The purpose of the policy was “to build a national cadre of qualified primary and secondary school teachers to improve the learning achievements of all primary and secondary school students” (Ministry of Education, 2006, p. 57).

The policy was developed based on the National Development Strategy (NDS) to address the Education for All (EFA), and Millennium Development Goals (MDG). The main purpose of this policy was to improve teaching quality of all teachers as well as upgrade 73% of teachers

that lacked the minimum required grade fourteen (TTC level) qualifications. To accomplish this goal, MoE, with the help of national and international non-governmental organizations (I/NGOs), used two core approaches:

1. increased the number of formal 2 year in-service Teacher Training Colleges (TTCs), and
2. conducted several short-term teacher professional development programs/projects.

Also, the MOE, through the BESST project, formed Teacher Learning Circles (TLCs) in all schools across the country to provide teachers with an ongoing professional development opportunity within their school settings. Since 2006, according to the Ministry of Education annual report (2011), the number of TTCs, both in- and pre-service programs, increased from around 50 to 220 in provincial and district levels. However the effectiveness of in-service TPD programs is often questioned. In the case of Afghanistan, it becomes crucially important as these programs are very costly. Since there's little known about effectiveness of 2-year in-service as well as short-term trainings, "there is an urgent need, particularly in developing countries, for further study of the impact of different kinds of teacher professional development programs in terms of their effect on teachers' practices, students' learning, and other outcomes" (USAID, n.d. p. 4).

### **CHAPTER 3: LITERATURE REVIEW**

The necessity of improving the quality of schools, improving teachers' performance and students' achievements has led to the idea that teacher professional development is the key to address these concerns. Nevertheless, results of a considerable number of researches on TPD demonstrate that teacher professional learning often is ineffective (Sykes, 1996; Hanushek, 2005). Borko (2004), Clarke and Hollingsworth (2002), and Timperley and Alton-Lee (2008) argued that the problem is partly rooted in researchers' work using simplistic conceptualizations of teacher professional learning that fail to take into account how learning is embedded in work settings and professional lives. In other words, much of the available literature fails to describe how teachers learn from professional development (Borko, 2004) and conditions that support this learning (Clarke & Hollingsworth, 2002).

Opfer et al. (2011) believe that the TPD literature has taken a misleading epistemological approach by taking empirical relationships between different forms of activity (e.g., being activity-based), learning structures (e.g. collaboration between teachers), setting and location (e.g., situated in practice), etc., and some measures of teacher change to be teacher learning. Also, the existing literature does not add to the work of researchers that have indicated learning and teaching to be contextually situated (e.g., Anderson et al., 2000; Greeno, Collins, & Resnick, 1996). Although there have been substantial demands for a more systems view and complex conceptualization of TPD, this literature review suggests that most of the research writings about this topic continue to focus on specific programs, processes and activities; separate from the complex teaching and learning settings in which teachers work and live.

Here, I review the literature about various approaches, models, and characteristics of teacher change focusing on the work of those who advocate a more dynamic understanding of

teacher professional learning. My attempt for doing this is to conceptualize a systems view and a complex process in ways that provide a basis for future research around this topic (teacher professional learning) in the context of Afghanistan. To do this, I review the literature looking at teacher professional development (TPD) through a systemic lens that entails taking multiple elements (e.g. local environment, school setting, teaching and learning, teacher professional development, organizational orientation towards learning, and teacher change) into consideration that, in most cases, are considered separate issues. Thus, I use a systems view and will borrow from complexity theory throughout reviewing this literature. I believe that it helps me to determine systems within and across different research and the ways these systems intersect and interact and how they result in emergence of teacher professional learning. I consider TPD consisting of a collection of activities and methods for learning that are intended for teacher improvement and, thus, student quality learning and that occur in complex social settings.

This review of literature includes contemporary academic and empirical research papers, as well as reports on developmental projects between 1988 and 2012. A critical review of some studies within the context of this research issue and discourse is discussed below. It is noteworthy that the literature review starts with an overview of teacher change and continues to analyze various TPD models and approaches, focusing on dilemmas involved in it, used in different contexts.

### 3.1 Teacher Change

In his article, Reeler (2007) notes that, despite using needs assessment tool, the conventional approach fails to identify and respond to real needs of communities at all time. The conventional theory of change is based on *projectable* approaches. According to Reeler, the *development project* which mostly uses the *Logical Framework Analysis* format is the most dominant tool used for conscious social change today in the world. This theory and/or approach is based on a simple analysis of cause and effect. The process is described as

*In a situation that needs changing we can gather enough data about a community and its problems, analyse it and discover an underlying set of related problems and their cause, decide which problems are the most important, redefine these as needs, devise a set of solutions and purposes or outcomes, plan a series of logically connected activities for addressing the needs and achieving the desired future results, as defined up front, cost the activities into a convincing budget, raise the funding and then implement the activities, monitor progress as we work to keep them on track, hopefully achieve the planned results and at the end evaluate the Project for accountability, impact and sometimes even for learning (Reeler, 2007, pp. 5-6).*

According to him, this theory assumes that:

- Change can be stimulated by project interventions and, thus, development can be ensured through projects.
- Practitioners are able to identify problems or needs upfront and find proper solutions for them.
- All stakeholders can get onboard by using participatory processes in the planning phase that gives the ownership and sustainability feeling. The better the project is planned the higher quality the outcome will be and, therefore, the more success is assured.

This approach mostly ignores the existing indigenous change processes. Despite being unable to deal with complex systemic problems and feedback loops, logical problem trees are commonly used in this approach. Also, it could work, but people do not follow their tasks and carry out roles and responsibilities at all time. On the other hand, sometimes projects face unpredictable events and or factors that can be hard to deal with along the process of project implementation.

According to Reeler, the projectable approach can be successful when the desirable situation for implementing the project is available on the ground. Otherwise, particularly in situations where there is a greater need for development assistance, projects can be challenged and will not succeed to achieve its predicted outcomes. In terms of designing and implementing development projects, Reeler asserts that different contexts with different situational factors entail different approaches. It's noteworthy that not all needs for change are problems. Therefore, it is crucial for us to understand the need for change as well as the change process. For development projects, it is always helpful to let practitioners or local stakeholders think and theorize to find their own strategy for change and implement it rather than giving them a set of pre-determined implementation strategy and goals to achieve.

Sometimes change occurs when people are not happy with what they have or what they are. The main factors of *transformative* change are crises and 'stucknesses' that can lead a community to bring about their desired change (Reeler, 2007). Both of these factors (crisis and stuckness) can be due to a natural process of inner development or interventions. As Reeler articulates, "crises may be the product of social beings entering into tense or contradictory relationships with their world, prompted by shifts in external political, economic, cultural or environmental contexts." (2007, p. 11). Both crisis and stuckness can take different shapes, and

they may take time to be addressed unconsciously, without intervention, or consciously - through well led and facilitated transformative change processes.

In the context of educational reform, the notion of teacher professional development by researchers and policymakers has most often rested on a process–product conceptualization of causality (Opfer et al., 2011); in other words a linear change process: that effective professional development and support will improve teacher instructional practices, which will result in improved student learning. Many countries across the world follow this model of change while developing policies for teacher professional development programs. According to Opfer et al. (2011), the prevailing simplistic equation has resulted in a momentous research focus on elements and processes of effective TPD — i.e. in determining the forms and features of teacher learning activities that affect changes in teachers’ teaching practices, and, consequently, increases in students’ learning performances.

On a different note, a systems view approach looks at change as a process that is simply modification of the system. As Banathy (1985, p. 17) articulates, to apply change it has to attend to the following three main functions: 1) change definition and display, 2) design the institutional adaptation and institutionalization of change, and 3) change implementation and management. Below, each of these three functions is described in detail.

1) Explain the need and rationale for change, characterize the expected systemic impact of the change, specify structural and operational characteristics of intended change, specify resources required to implement the change, and provide for arrangements by which the change definition information might be introduced into the system.

2) Assess the short and long range institutional impact of the change, consider potential “barriers” that hinder or tend to prevent the change, study the feasibility of adaptation/institutionalization, design alternative systemic arrangements for change and select the most promising configuration of arrangements, and develop a plan for the implementation of the change system and a guide for change infusion and management.

3) Orientation, preparation, and professional development (training) of people who will operate the change system and participate in the implementation of change, the establishment of change implementation, and management capability and the installation of structural and operational management for change, Specification of guidelines for adaptations/institutionalization, development/adaptation/acquisition of educational resources (such as instructional/learning resources) required to implement and maintain the change, and the orientation, involvement and participation of people in the “environment” of the system (e.g. all levels of management); those who have an interest in or are affected by the system.

Despite these emphases, linear change is still the dominant approach taken on, particularly for educational reform purposes, in the developing countries. Hollingsworth (1999) in his study examined teacher improvement through learning about the changed practice and the identification of factors that affect the process of change in teachers’ performance. The study investigated the process of change of teachers of the Victorian mathematics PD program, Exploring Mathematics In Classrooms (EMIC). The EMIC program aimed to impact the teachers

practice by encouraging them to reflect on their current practice. The study also encouraged teachers to read appropriate professional literature and to apply effective teaching strategies in their classrooms.

The study documented the practices and perceptions of the teachers in relation to their Curricular Activities. The study focused on teachers' initial involvement in the program through a period of 12 months consolidation and refinement; after completing the program. The results of this study noted:

1) *Level of classroom experimentation:* Analysis of classroom observations and teaching records suggested that, over the period of the study, teachers involved in a similar set of teaching strategies; with a similar level of frequency.

2) *Level of reflection:* It appeared that some teachers were much more likely than others to reflect on their teaching practices or experience of the professional development program.

3) *Change in practices and beliefs:* Teachers reported change in their beliefs and practices.

4) *Level of collaborative activity:* It was noteworthy that teachers would make repeated reference in interviews and informal conversation to their increased level of collaborative involvement with other staff members.

This empirical research example is process-product oriented. It is noteworthy that change is nonlinear. Thus, change can likely occur in one area but may not cause change in another. For instance, unlike linear assumption of the change process, teachers may change their practice without changing their beliefs or vice-versa, and/or may change their teaching practice in the classroom but not the learning outcome of students. In order for teacher learning to occur, it's important to bring about change in multiple areas of influence (Clarke & Hollingsworth, 2002).

From a systemic perspective, learning in one system must impact, be enacted and supported in other systems. As a result, effective TPD requires cyclic movements between the systems of influence in teachers' work and living setting.

As Opfer et al. (2011) emphasize, if we intend to explicate and predict effective TPD (i.e. pedagogical change), we must first expand our assumptions by taking into account various causes about features of TPD by recognizing that these features may work together collectively in different ways. These features may also work differently under different conditions in different contexts. Secondly, we need to consider the pivotal role of different levels of intensity of these features. We must, then, further expand these assumptions, beyond the learning process/activity features, to consider the interactions (reciprocal relationships) between the system of activities and systems of influence that moderate and ensure these activities, including teacher learning/change.

Teaching and learning are to a large extent shaped by teachers' experience and their beliefs. In other words, teachers bring both beliefs and experiences to teaching and learning. Richardson (2003), in her work with pre-service teachers, has shown that beliefs teachers bring to their day-to-day work in classrooms are shaped by how they were taught as students in the past. Teaching constitutes the formation of beliefs. Therefore, teaching is not only influenced by beliefs but also it leads to the formation and modification of beliefs. Interaction between belief and experience generates a combination that determines both the decisions teachers make about their instructions (Raths, 2001) and what they like to learn. Richardson (1996 – as cited by Opfer et al., 2011, p. 387), for teachers' pedagogical beliefs, highlights three sources: personal experience, professional experience (i.e. with school and instructions), and experience with formal knowledge (such as subject knowledge and pedagogy). Beliefs are heavily grounded in

the past and present experiences. Teachers, based on their past experiences as teachers and students, bring to their learning and teaching values, theories, attitudes, and images in the appearance of beliefs that impact their personal decisions about learning. Also, teachers bring their prior knowledge to their professional learning processes.

Smith, et al. (2003) conducted a study to help TPD decision-makers plan and deliver effective PD as well as to determine the factors that influence teachers change as a result of PD opportunities they receive. This study assumed that teachers change in different ways and amounts as a result of teacher participating in PD opportunities, and that multiple factors impact the amount and type of change teachers experience as a result of PD. For instance, the results of this study highlight: a) almost all teachers (90% of the whole sample, 95% of completers) improved some knowledge on the topic, b) teachers' roles as classroom instructors (53%) were considered as the main measure for changes, c) among the types of change, the results identified change in thinking and acting, and d) motivation, years of experience, school setting and level of formal education were, according to the results of this study, among the he most influential factors with relation to change.

Teacher change occurs as a result of interaction among experience, beliefs, knowledge, and practices that drive a teacher's orientation to a learning system (Opfer et al., 2011). Wheatley (2002) suggests that conflict between a sense of efficacy and personal expectations may open up the possibility for and motivate teacher to learn. Self-doubt may cause reflection and lead teachers to learn. Likewise, Opfer et al. (2011) bring up the significance of "cognitive conflict" in teachers' thinking as a driving factor for teacher learning. They suggest that this cognitive conflict could work as a motivator for teacher change. Also, Ball's (1988) argument supports the importance of dissonance in teacher thinking for teachers to unlearn what they know, believe,

and know how to do in order for them to learn and adopt new practices. However, Timperley and Alton-Lee (2008) emphasize that since resolving dissonance involves the reform of current beliefs, values, and knowledge, too large dissonance may lead to rejection rather than adoption of new learning.

The relationship among the learning activity, learning orientation system, and changes in practice are mutually causative (Opfer et al., 2011). The dissonance existing within teachers' learning orientation system possibly serves as a motivator for seeking new learning and change. However, as a result of change, teachers' orientations to learning systems also change. Orientations to learning strongly influence how and what teachers learn. Opfer et al. (2011) argues that teacher learning must support and provide more or better a) classroom and field experiences, b) opportunity for reflection, c) opportunity for understanding oneself in a safe environment under challenging circumstances, and d) applied knowledge about teaching and learning.

Among all, motivation is a significant factor in teachers to further their competencies. For instance, Bennell and Akyeampong (2007) stated that teacher motivation has been a challenge in the Sub-Saharan Africa and South Asian countries. This has profoundly impacted achieving the Education for All (EFA) goals in these countries. They emphasize that there can be no education without teachers and a sustained economic, political and social development without education. The key question, according to Bennell and Akyeampong, is that there is sufficient number of teachers with necessary commitment and competence to provide quality basic education. Among many, the report shows that some key determinants of teacher motivation include: 1) accountability, 2) security and conflict, 3) the policy environment, 4) pay and career progression,

5) status and vocational commitment, 6) teacher competence, 7) working and living conditions, and 8) teacher management and professional support (Bennell and Akyeampong, 2007).

The findings of this report also indicate that there are, in fact, growing concerns that teachers are becoming increasingly de-motivated, which contributes to deteriorating teacher performance and learning outcomes. Poor incentives mean that far too few qualified and experienced teachers wish to work in rural areas. Yet, provision of basic education in rural areas presents the most serious challenges achieving the Universal Primary Education (UPE) goals (Bennell and Akyeampong, 2007). The necessity of adequately remunerating teachers has been a constant refrain of education commissions and other reviews over the last forty years (Sirima and Poipoi, 2010).

From the systems view perspective, school conditions, structure, rules and culture significantly impact teachers' performance, motivation and orientation towards improving their knowledge and skills. The norms of school (structures and practices) both enable and constrain teachers. Unsupportive school conditions can result in teachers encountering difficulties in implementing new practices in their classrooms. These conditions may include lack of leadership and coordination, little collaborative or collegial activity, and no obvious commitment to TPD. Pedder (2006) has argued that it is important for schools to develop the practices and processes of learning organizations if they intend to provide the conditions that improve and sustain teacher growth.

Substantial research (such as Opfer et al., 2011) on the characteristics of learning organizations highlights some consensus on the practices and processes that promote both individual and organizational learning. These include a) nurturing a learning environment, b) using self-evaluation as a way of promoting learning, c) examining implicit and main values,

beliefs and assumptions, and d) creating systems of managing knowledge that leverage resources, staff and pupils expertise and core capabilities. Other than these, school-level belief about learning is another most notable influence on teacher change and improvement. These beliefs shape individual and collective attitude/behavior within the school—by creating norms of action. Although teachers have their own practices and beliefs about learning and teaching, schools, as collective environments, also have practices and beliefs about learning and teaching. However, creating supports, systems and norms that encourage both organizational and individual learning and ensuring the balance between external and internal sources of learning are often challenging for most schools. Schools mostly lack a coherent and coordinated approach to teacher learning.

### **3.2 Teacher Professional Development – A Dilemma**

As the movement toward accountability increasingly becomes the norm, education continuously faces reforms (Johnson, 2011). It is certain that there are many factors involved in providing quality students' learning at schools; teacher professional development is considered as an important factor for ensuring students' achievements. Unanswered questions are: What type of professional development? Who gets to decide the content, method, resources, duration, location, conditions, etc. for teachers' professional development? How do we know whether or not there's a link between TPD and students' learning?

Ingersoll and Kralik (2004) looked at another aspect (mentoring) to improve teachers' quality; particularly beginning teachers. Mentoring and induction impact among the 10 studies was found differing, however, the studies supported the claim that teacher support and mentoring programs had a positive impact on teachers and their retention (Ingersoll and Kralik, 2004). Spuhler and Zetler (1995), in early 1990s, conducted an evaluation of the Montana Beginning Teacher Support Program. The program assigned volunteer mentors with mentees for a period of a year. The program made sure that mentors match mentees according to their grade levels and subjects. Spuhler and Zetler's made concerted effort to isolate the impacts of mentoring from other influences of teacher support. The outcomes that were examined included the retention rates for both mentored and non-mentored teachers, indicating positive impacts of the program on retention. In other words, teachers that participated in the mentoring program had higher rate than those that were not mentored.

The findings of research that was conducted by Desimone et al. (2006) give insightful information on in-service professional development training for teachers that needed content-knowledge. According to these researchers, policymakers and administrators are increasingly

focusing on TPD as a vital means for improving teaching quality. The Researchers examined whether or not TPD in mathematics performs an educative function by responding to weak teacher preparation, or it performs a catalytic function by furthering the quality of teachers who already have a strong content knowledge. The results of the study show teachers with sound content knowledge took sustained content-focused PD than those with weak. Thus, based on the findings of this study, short-term PD primarily serves teachers that already have strong content knowledge, rather than to address the content knowledge gaps of teachers that are less prepared to teach mathematics.

Apart from these empirical researches, Johnson's (2011) qualitative research provides intriguing insight on 'professional learning communities (PLC)'. The purpose of this study was to measure the influence of PLC in three specific areas: 1) content, 2) process, and 3) context of the reform's implementation. Perceptions of content were categorized within three areas: a) learning communities, b) leadership, and c) resources. Perceptions of the process were categorized within six areas: a) data-driven, b) design, c) evaluation, d) learning, e) research-based, and g) collaboration. Perceptions of contexts were categorized within three areas: a) equity, b) quality teaching, and c) family involvement (Johnson, 2011).

According to Johnson (2011), although reformists and policymakers have observed that PLC structure could be useful to teachers and students, studies on teachers' perceptions is scarce. Information regarding a practical resource for implementing and adopting PLCs also is scarce. Teachers and administrators lack data/evidence demonstrating teachers' perceptions within schools' in which PLCs function. This has made it a challenging and, yet, uncertain about PLC effectiveness for educators to adopt PLC - as a collaborative TPD process.

Although the above research notes that there's not much empirical evidence documented the effectiveness of PLCs affecting teacher performance, there is a large amount of literature that emphasizes that PLCs (collaborative communities) are a hallmark of high quality professional development for teachers (Louis & Marks, 1998; Little, 2003; McLoughlin & Talbert, 2001). The literature also notes that school-based communities of practice support the 'critical friends' approach to professional development that aims to increase student learning by creating school-based teacher communities whose members carry out practice centered collegial conversation (Curry, 2008; Dunne et al., 2000).

Professional learning communities (PLCs) are called differently by different writers in the discourse of teacher professional development; of course with a few differences in characteristics of each. Some of these include 'teacher study groups', school-based 'collaborative communities', 'teacher learning circles', 'communities of practice', 'job-embedded professional development model', and so on. In this paper, some of these terms are used interchangeably. However, by all of these I generally mean TLC; a collegial group of school teachers, staff and administrators who work together, collaboratively, and are committed to students' learning. They all share a vision, learn and work collaboratively, visit (observe) and review one another's classrooms, and participate in decision-making processes (Hord, 1997). Also, Hord noted, "as an organizational arrangement, the professional learning community is seen as a powerful staff-development approach and a potent strategy for school change and improvement" (1997, p. 1).

The literature on PLC – or school communities of practice – emphasizes that teachers need to participate in school-wide collegial activities in joint and collaborative professional efforts that have students' learning as their primary purpose (Jalongo, 1991). Such a strategy entails investing in teacher PD, as well as giving teachers' greater autonomy and decision

making power (Hord, 1997 b). Hord suggests looking at five attributes/dimensions when and if a school is likely to adopt PLC as a means for improving teachers' quality: a) Supportive and Shared Leadership, b) Collective Creativity, c) Shared Values and Vision, d) Supportive Conditions, and e) Shared Personal Practice (1997; 1997 b).

PLC, as a TPD model, allows for the possibility of professional development programs to be based in schools and to provide effective opportunities for teachers to reflect and share their experiences, knowledge and skills and to reflect on their practice. They are also defined as “groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (Wenger, 2006, p. 1). PLCs – or communities of practice – could also help teachers learn from their own experience and generate local and relevant knowledge. Communities of practice are primarily school-based and their relevant activities are integrated into teachers' day-to-day work, consisting of teachers reflecting on their performance, assessing and looking for solutions for immediate and authentic problems regarding their quality of practice; as part of a continuous improvement process (Hawley & Valli, 1999; National Staff Development Council, 2010). The notion of learning in one's own physical and social context is considered by many as a critical element for ensuring effective learning (Brown et al., 1989; Lave & Wenger, 1991).

However, the literature critiques merely school-based professional development. There are limitations if teacher learning and professional development is mostly limited to studying teaching practice within their own school settings. Putnam and Borko (2000) argue that in order for teachers to better benefit from PD opportunities they need to study in multiple settings and contexts, especially if the goal is for teachers to share new ideas, learn from others' experiences and think in new ways. This is because the pull of school's existing environment and culture may

be too strong to bring about change. For instance, it is essential for teachers to get exposed to different settings through participating training workshops, conferences and or seminars. Traditionally workshops during the summer and winter breaks held in locations other than teachers' own schools are mostly likely used to introduce teachers to novel topics and new instructional ideas.

An extensive literature has also focused on collaboration resulting from the adoption and development of communities of practice (Opfer et al., 2011) that are similar to the PLC model. In general, communities of practice consider the intersection and interplay of communities of teachers, individuals, and specific contexts in trying to learn about and improve teacher learning. When these elements (e.g. teachers, school administration and contextual conditions) come together and, thus, a learning community emerges, teachers that participate in these communities are more likely to share and discuss problems, solutions, and strategies. Therefore, in such a collegial work environment, change in teaching behavior will then become a continuous, collective responsibility rather than an individual effort.

PLCs are demonstrated by staff and teachers from multiple constituencies continually and collaboratively working together (Louis & Kruse, 1995). This collaborative work is grounded in what Louis and Kruse label reflective dialogue. Staff members, through such reflective dialogue, discuss students' problems and progress, teaching and learning issues, identifying issues and problems and working together to address those issue in a collegial manner. In such conversations, participants learn to apply new knowledge (i.e. concepts, ideas and information) to problem solving and, thus, are able to provide new conditions for learners (students). Extremely necessary elements that need to be ensured in this process include shared vision and values; supportive structural, temporal, and social conditions; and a shared personal practice.

Agreeing with an idea is not just sharing vision; it is a mental image of what is important to an organization and to an individual. It is important for staff members to not only participate in the process of creating a shared vision but to apply and use that vision as a guidepost in decision-making process about their teaching and learning in the school settings. In order for the PLCs to function productively, the structural and physical conditions and the quantity and quality of human resources (people) involved in the process must be optimal.

Louis and Kruse (1995) identified some structural factors that influence PLCs. These include, but are limited to, the amount of time allotted for meeting and discussion for PLCs activities, school size (small or big) and physical proximity of the staff members to PLC venue and to one another, teachers' independent teaching roles, under/well-developed communication structures among all levels within school structure, school culture, political relationships, and autonomy, as well as teacher empowerment. Another important factor is staffs' input in hiring teachers and administrative staff for the school. Involving teachers in the process of interviewing and hiring new teachers greatly contribute to promoting the culture of collegial work environment and openness of teachers to each other in PLC and school settings. Also, the feel committed to their involvement in the decision-making and selection processes and, thus, to ensuring the quality and effectiveness of the entire teachers (colleagues).

However, being open to colleagues' feedback is the key for PLCs effectiveness and the collaborative work approach for teachers to grow their professional competencies. Louis and Kruse (1995) noted that teachers' willingness for accepting feedback and working together toward improvement is the first characteristic of a productive learning community. Other necessary qualities and characteristics include trust and respect among colleagues, being an active and supportive participant, having appropriate cognitive and skill base enabling them

teach and learn effectively, leadership support, and performing and maintaining intensive socialization processes. Teachers can build trust and find support and help as a result of establishing warm and equally respected relationships with each other. Wignall noted, "Teachers tolerate (even encourage), debate, discussion and disagreement. They are comfortable sharing both their successes and their failures. They praise and recognize one another's triumphs and offer empathy and support for each other's troubles" (1992, p. 18).

The literature suggests this model to be embedded in teachers' job; as part of their daily tasks that they need to accomplish within their school time. In other words, school-based professional development needs to be considered to be as job-embedded activity referring to type of learning grounded in teachers' day-to-day teaching practice. This type of professional learning and development is intended to improve teachers' content-specific instructional practices and, consequently, improving students' learning (Hirsh, 2009; Darling-Hammond & McLaughlin, 1995). It is believed that this TPD model is a shared, continuous process that is contextually/locally rooted and it establishes a direct connection between what teacher learns and what s/he applies in daily practices (classroom). Hence, this model requires active teacher participation in cooperative, reflective, inquiry-based TPD activity (Hawley & Valli, 1999).

School structure, culture and, as a whole, system plays a prominent role in providing, supporting and sustaining teachers' PD. According to Johnson (2011), the transition to a PLC requires staff and educators to take theories and apply them in practice. Such an approach should stress that a school's vision and culture must be based on the development of collegial work environment, interaction among teachers and staff, cooperative social skills, democratic behaviors, and critical thinking. Literature on educational leadership and school change clearly recognizes the influence and role of the school administrator (principal, and sometimes head-

teacher) on whether or not change will occur in the school setting. It seems obvious that transforming a school (organization) into a learning community could be ensured only through a strong leadership and the active nurturing of the entire staff as a community. Louis and Kruse (1995) determined the supportive leadership of school principals as one of the vital human resources for reforming and restructuring employees into school-based professional communities.

According to Firestone et al. (2005), a comparison of three urban school systems suggests that district offices can influence teaching through professional development. District leaders can structure their programs to provide coherent and content-focused professional development. The district orientation (vision, emphasis on professional development, use of human resources) set by the dominant coalition of leaders—including but not limited to the superintendent—in each district influenced the coherence and content focus of the professional development programs. District differences in their organizational capacity affected coordination and planning of PD. The results noted that districts with the most consistent and coherent focus on supporting teachers develop deeper knowledge had the greatest teacher-reported influence on teaching practice (Firestone et al., 2005).

Despite all implications and effectiveness of communities of practice, in the literature, collaboration is considered to be a double-edged sword. Too much collaboration can result to emphasize conformity of members to group norms constraining members' inventiveness and initiative. To explain the role of collaboration in teacher learning, the intensity of collaboration becomes a powerful determinant—too little collaboration prevents teacher growth and causes teacher isolation while too much collaboration are stifling; just enough collaboration makes sure that teachers are encouraged and supported by their colleagues to grow themselves. Teachers

vary in the amount of support they may need to change as their individual specific systems of influence change over time. Generally, collaboration among teachers enhances their learning and professional development extraordinarily.

There are many different approaches and models for supporting teachers that could be applied within and outside schools. In the above, we reviewed a few main approaches that have been used in Afghanistan, particularly, since 2001. This literature review clearly shows the importance of developing sound policies, designing and undertaking appropriate and effective approaches, participatory planning and collaborative implementation of teacher professional development. It also emphasizes the necessity of considering all internal and external units of the whole teacher change system that are interconnected and or embedded; interacting with each other. For education policy developers, it is imperative to use systemic lens when planning for supporting teachers to improve their effectiveness.

Shah's (2010) finding indicates that Afghanistan Ministry of Education (MOE) and its core partner national and international Non-Governmental Organizations (NGOs) lack these capacities. In his study Shah (2010) endeavored to understand the process of education policymaking, and specifically how the MOE capacity has changed in terms of its ability to shape the policymaking process in the formulation and later revision phases of the National Education Strategic Plan (NESP). In addition, he examined how change in ministry capacity over the course of NESP formulation and revision has affected the government's position to negotiate the policymaking process. The study particularly looked at Teacher Education Program (TEP) as a specific case of policymaking. The study assumed that aid dependency, along with a lack of technical capacity in government institutions caused by the protracted civil war in the country,

had potentially weakened the position of the Government of Afghanistan (GOA) in dealing with donors on setting national policies and priorities.

To select a distinct topic for this case study and to gain familiarity with policies, programs and issues in the primary and secondary education subsector, a scoping study was conducted during March and April 2009 (Shah, 2010). The resulting report provided grounds for brainstorming the topic of the case study, which was to examine the capacity of the MOE for developing policies and programs by comparing the processes of development of the NESP in 2006 with its revision in 2009. The following analysis summarizes findings presented in this study. It also highlights some areas for discussion and further study (Shah, 2010).

1. The development of both NESPs was primarily for external factors; such as the government's commitment to achieve the Education for All (EFA) targets and to acquire membership of the Fast Track Initiative (FTI) partnership for increased funding.
2. The working structures and arrangements for the original NESP appeared effective in facilitating the systematic flow of work despite time constraints that did not allow full pursuance of the designed model.
3. The original NESP process was designed and implemented with the assistance of international and national advisors while, in the revision process, the Planning Department of the Ministry demonstrated an increased ownership in designing and leading the process.
4. The original NESP was less consultative given the pressure of deadlines to finish the strategic planning work. The revision process involved sufficient time and consultations at various levels.

5. The process of program development for the original NESP was quite systematic and better designed, and went through an inclusive process that involved donors and ministry advisors and civil servants to some extent. For the revised NESP, the program revision was done mainly by filling in the log-frame template.
6. Ministry of Education, the donor community and international and national education experts were the main actors and agencies for prioritizing the needs and deciding policies for education development of the country.
7. Ministry of Education still lacks the capacity for planning and policy development that could address the needs and challenges in education sector. It is commonly assumed that capacity development is a long term process, particularly in the context of Afghanistan.

A situational analysis report prepared by Spink, et al. (2004) provides insight about teacher education and professional development in Afghanistan. According to the study, Teacher Education Program (TEP) was an initiative, taken by the MOE, to support a coordinated response to teacher development in the country. Collaborating agencies included the Academic Council on Education, Ministry of Education, Ministry of Higher Education, UNICEF, USAID, World Bank, DANIDA, JICA and CAII. The program aimed to, "produce a long-term plan for teacher education in Afghanistan; identify and initiate immediate term activities focusing on rapid, country-wide in-service teacher training programs, setting up Teacher Resource Centers (TRCs) at a sub-district level; and enabling coordination among diverse inputs and delivery systems through a commonly agreed upon approach" (Spink et al., 2004, p. 4).

This study aimed to provide a short overview of teachers and teacher development programs in Afghanistan until 2004, which then intended to be incorporated into a longer-term

teacher development policy or strategy. The results of the study indicated that the MOE Teacher Education Department (TED) has been active in developing and designing a model aimed for expanding teacher training that includes teachers across the country - particularly from the rural areas. Despite concerted efforts, a concrete plan for improving teacher deployment, distribution and allocation was very difficult for the TED and MOE without reliable school based information that would effectively be managed at the district, provincial and central levels (Spink et al., 2004). The study also highlights that it has been a new concept for the MOE to conduct a critical analysis of capacity and needs of systems, programs and individuals. To have deep and sound knowledge with this regards, the study recommended further comprehensive researches in the country. The study suggests that Afghanistan MOE needs to develop a culture of self-evaluation which would support the process of developing a meaningful monitoring and evaluation system in the country.

## CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

In the context of Afghanistan teacher education, the notion of *professional development*, by definition, is widely accepted as a good tool for improving the quality of teachers. The more teachers are provided with professional development opportunities the better practitioners they become. All TPD programs/projects were evaluated by only asking participants (teachers) whether or not they learned the content and are satisfied. The most in-depth and robust evaluations consist of observing a few participants' (teachers) teaching performance in a classroom. The education system in Afghanistan lacks a mechanism for ensuring *accountability and learning* through student achievements correlated with teacher professional development. The system should require students to meet higher standards in addition it should hold teachers accountable for their student performance and results. It should also encourage policymakers and professional developers show that the policies and opportunities they provide are beneficial for teachers and students. In short, quality *evaluation* is neglected in all levels in the Afghan education sector; i.e. students, teachers, school administration, and so on. In the TPD case, policymakers and planners, whether at MOE and development organizations, do not place much emphasis on rigorous evaluation that can provide them sound, meaningful and reliable information which they can then use it to make thoughtful decisions regarding TPD processes and effects.

This research is essentially a comparative evaluation that intends to explore and measure the teacher change in practice (effectiveness), its impact on student learning outcome, as a result of teacher participation in three core professional development opportunities. This study uses the mixed-methods for collecting and analyzing the data. The nature of the study entails using both quantitative and qualitative methods (mixed methods); as the study determines, measures and

examines teacher professional development, effectiveness of different PD approaches, and whether or not these PD opportunities changed teacher practice inside classroom. It also explores the key factors that influence different groups of teachers changing their attitude in different settings.

There are a few advantages in using the mixed-methods in this research. A few includes, as Creswell & Clark (2011, pp. 5-6) articulate, in mixed-methods, the researcher:

- collects and analyzes persuasively and rigorously both qualitative and quantitative data (based on research questions),
- mixes (or integrates or links) the two forms of data concurrently by combining them (or merging them), sequentially by having one build on the other, or embedding one within the other,
- gives priority to one or to both forms of data (in terms of what the research emphasizes),
- uses these procedures in a single study or in multiple phases of a program of study;
- frames these procedures within philosophical worldviews and theoretical lenses, and
- combines the procedures into specific research designs that direct the plan for conducting the study”.

This research project was conducted during a period of nine months. Following is a table that describes the timeline of this project.

**Table 1- Research Project Timeline**

<b>June</b>	<b>July</b>	<b>August</b>	<b>September-February</b>
<b>1-Finalize research:</b> <ul style="list-style-type: none"> <li>• questionnaires</li> <li>• observation forms</li> <li>• checklists</li> <li>• procedures</li> <li>• database</li> </ul> <b>2-Finalize action plan</b> <b>3-Contact participants and set appointments</b>	<b>1-Conduct the research</b> <b>2-Collect data through</b> <ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview</li> <li>• Observation</li> <li>• Document review</li> </ul>	<b>1-Continue</b> collecting data <b>2-Assemble and</b> organize data collected <b>3-Data entry –</b> into the database	<b>1- Data entry</b> <b>2- Data analysis</b> <b>3- Literature review</b> <b>4- Writing report</b>

This research took over nine months. The primary sources for collecting information for this research constituted semi-structured (open-ended) interviews with teachers, teacher trainers, TTC faculty members, and head-teachers, questionnaires that were completed by teachers, review of student documents and classroom observations.

It is noteworthy that the Monitoring and Evaluation team of National Development Support Organization (NDSO) in Baghlan province contributed in collected data from field. I believe that their contribution to a large extent made this research project successfully accomplished.

#### **4.1 Sample**

The criteria for levels of participation comprised inclusion of participants by gender, location, qualification, experience and accessibility to support resources. My sampling strategy was purposeful as I intended to focus on specific participants (teachers), events (TPD approaches) and processes (teacher change and student outcome) (Rossman & Rallis, 2012). My main focus centered on achieving representativeness and comparability of participants. As

Teddle and Yu articulate, “these techniques are used when the researcher wants to (a) select a purposive sample that represents a broader group of cases as closely as possible or (b) set up comparisons among different types of cases” (2007, p. 80).

The research sample (study population) consists of 150 teachers, 3 head-teachers, 3 teacher-trainers, 3 TTC faculty members, and 62 students (total 212 participants). This study targeted 30 schools in three districts in Baghlan province, Afghanistan (such as Pul-e-Khumri, Doshi, and Dahna-E-Ghori).

**Table 2 - Research Sample**

Teachers	Teacher Trainers	Head-teachers	TTC Faculty	Students
108				
30				
6				
6	3	3	3	
				62

#### **4.2 Data Collection**

I, with the help of NDSO Monitoring and Evaluation team, conducted individual and group interviews with teachers, head-teachers, teacher trainers, and TTC faculty members at 30 schools in Baghlan province, Afghanistan. The interviews focused on participants’ experiences, their reflection as teachers and or TPD facilitators with relation to TPD, and its impact on student progress. My focus was on understanding, from the participants’ perspective, what approach effectively improve the quality of teachers’

practice inside classrooms and, thus, student learning outcome. I asked participants to describe their involvement in TPD activities and share stories about challenges, successes, and improvement in their students' achievements as a result of teacher participation in PD opportunities. I made sure not to anticipate soliciting information that is personal or that could make participants feel vulnerable. I assumed that participants enjoyed thinking and talking about the work they do.

I centered my interview questions on participants' professional experiences. While I wanted to interview as many participants as possible, my research project involved only willing participants who understood the scope of the project. For example, I made the project description available to those participants who showed interest in learning more about it. I was mindful of participants' work and time commitments, therefore I made a concerted effort to avoid excessive burden on participants and minimize disruption. This required, for example, advanced preparation and coordination with participants which I started planning long before I conducted the research.

I developed an informed consent form (see appendix A) that I shared with each research participant. As my target participants spoke in Dari (Farsi) and Pashto, I translated the form into Dari and Pashto to guarantee that participants understand their rights, the purpose of the research, how the data collected from them will be used, as well as express their agreement in participating in the research. As informed consent is a process, I discussed it when sharing the project goal with participants, as well as before and after completing the questionnaires, interviews, observations, and document reviews.

I agreed with all research participants that I would make every effort not to disclose their identity (i.e. individuals and schools participated in this research). In other

words, this research paper fully complies with anonymity and confidentiality commitment the researcher made with participants. This includes not sharing with anyone the identity of participants and keeping the collected data protected. I used pseudonyms in drafts and memos and kept any identifiers separate. I have also kept the soft copies of all data (communications, interviews, records, etc.) password restricted. For the purpose of collecting data (quantitative and qualitative), I used the procedures displayed in the table, next page.

**Table 3 - Data Collection Procedures**

<b>Rigorous Qualitative Data Collection Procedures</b>	<b>Procedures in Data Collection</b>	<b>Persuasive Quantitative Data Collection Procedures</b>
<ul style="list-style-type: none"> <li>• Identified the sites.</li> <li>• Identified the participants.</li> <li>• Noted the sample size.</li> </ul>	<ul style="list-style-type: none"> <li>• Using sampling procedures</li> </ul>	<ul style="list-style-type: none"> <li>• Identified the sites to be studied.</li> <li>• Identified the participants for the study.</li> <li>• Noted the sample size.</li> </ul>
<ul style="list-style-type: none"> <li>• Discussed permissions needed to study the sites and participants.</li> <li>• Obtained institutional review board approval.</li> </ul>	<ul style="list-style-type: none"> <li>• Obtaining permissions</li> </ul>	<ul style="list-style-type: none"> <li>• Discussed permissions needed to study the sites and participants.</li> <li>• Obtained institutional review board approvals.</li> </ul>
<ul style="list-style-type: none"> <li>• Collected the data through open-ended interviews, open-ended observations, documents, audiovisual materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Collecting information</li> </ul>	<ul style="list-style-type: none"> <li>• Collected the data through questionnaires, observations and quantifiable records (student records).</li> </ul>

**Adapted from: Patton, Michael Quinn. (2002). *Qualitative Research and Evaluation Methods (3rd ed.)*. Sage.**

The data sources include the data collected through this research tools, MOE reports, teacher education programs/projects reports, and school records. The National Development Support Organization (NDSO), a local Afghan NGO, helped with collecting the data from the field. I trained six Monitoring and Evaluation (M&E) staff of NDSO on the forms, research protocols, procedures, purpose and scope of the research project. Three of these NDSO staff were female and I purposely chose and trained them so that they could interview, observe and apply questionnaires with female participants.

Before applying the tools (e.g. questionnaires, checklists, informed consent form, etc.), I and the NDSO M&E staff piloted the tools to make sure the participants and research assistants have no problem with the language, clarity and how to use or respond to the research tools. I changed some parts of the instruments based on the results of piloting the research instruments. Also, the Baghlan Provincial Education Directorate (PED) provided me with a support letter confirming my access to schools and asking school administration, including teachers, to participate in the research.

The nature of the study entails using both quantitative and qualitative methods (mixed-methods), as the study determines, measures and examines teacher professional development, effectiveness of different PD approaches, number of teachers participated in PD activities under each approach and whether they changed their practice, the key factors that influence different groups of teachers' change in different contexts, etc. In general, I developed the methods used in this study to generate information and data in order to address the research purpose and questions presented in the first chapter. I used the following methods and tools for data collection purposes.

*a) Questionnaire:* There are three questionnaires (see annexes C, D, and E) I developed for collecting data from teachers; one for each model. Each questionnaire asks teachers about the type of PD opportunity they participated in, the length, quality and content. It also asks participants to reflect on their performance and respond to questions with regard to the effects of the PD opportunity they participated in on their performance, in their daily classroom activities, as well as students' achievements. At the end, I included a section in the questionnaires asking for any other concerns, recommendations, and opinions of teachers on effective PD.

*b) Interview:* These are semi-structured and open-ended interviews. I conducted in-depth interviews with individual participants to let them reflect deeper and share their thoughts in an open and tension-free environment. I interviewed six teachers, two head-teachers, two teacher-trainers (one from BESST project and another from AKF Regional Education Program), and two TTC faculty members.

*c) Observation:* These included using observation forms that I developed prior to conducting classroom observations and unstructured observations – using a note-taking strategy rather than a checklist. For the first type (observation forms), I focused on specific aspects of

teacher preparation, teacher practice, classroom setting, learning environment, student engagement and performance, teaching materials and aids (see appendix B). For the second type, I observed by deeper engaging in the process, learning more about the school and classroom setting, the dynamics that influenced the whole teaching, learning and TPD processes and the interaction among these dynamics within the school and classroom settings. For the second type, I only took notes of aspects that I found important and relevant to the research purpose with adequate details about them. I also conducted follow up meetings (interviews) with teachers I observed to address concerns and questions created in my mind during the observation process.

*d) Document Review:* For this research, I needed to have access to school records, particularly student test-results, Teacher Training College (TTC) documents, i.e. curriculum, syllabi, and student records for the in-service program, as well as access to records, training materials, and reports of the national Teacher Education Program (TEP), Building Education Support Systems for Teachers (BESST), Aga Khan Foundation (AKF) Regional Teacher Education Program, and National Development Support Organization (NDSO) Teacher Education Department. I first contacted all these agencies and they agreed to provide me with access to these documents for the purpose of this research.

In short, to collect quantitative data, I used questionnaires and checklists for observations and document review. For collecting the qualitative data, I applied individual in-depth interviews (open-ended) and classroom observation (unstructured) that were administered in all sample schools. The following table describes the instruments used in this research in detail.

The questionnaires, interviews and observations helped me collect data on teachers' command on subject matter, pedagogical knowledge and whether or not each of the three TPD models address teachers' professional needs efficiently; that is addressing the research questions

one, two and four. The document review, focusing on students' performance in the last four semesters, helped collect data on student outcome (addressing the research question three).

**Table 4 – Overview of Research and Data Collection Methods**

<b>Tool</b>	<b>Teachers</b>	<b>Teacher Trainers</b>	<b>Head-teachers</b>	<b>TTC Faculty</b>	<b>Students</b>
<b>Questionnaire</b>	108				
<b>Observation (Checklist)</b>	30				
<b>Observation (No Use of Checklists)</b>	6				
<b>Interview (semi-structured)</b>	6	3	3	3	
<b>Document Review</b>					62

### **4.3 Data Analysis**

I considered each of the three TPD approach evaluation as a *case*, rather than focusing on the events and actors within each of the three approaches. The table, displayed in the next page, describes the core procedures I used for data analysis (both quantitatively and qualitatively).

**Table 5 - Data Analysis Procedures**

<b>Persuasive Qualitative Data Analysis Procedures</b>	<b>Procedures in Data Analysis</b>	<b>Rigorous Quantitative Data Analysis Procedures</b>
<ul style="list-style-type: none"> <li>• Organized the documents and visual data.</li> <li>• Transcribed the text.</li> <li>• Prepared the data for analysis using appropriate computer programs (MS Word, MS Excel and MS Access).</li> </ul>	<ul style="list-style-type: none"> <li>• Preparing the data for analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Coded data by assigning numeric values.</li> <li>• Prepared the data for analysis using appropriate computer program (MS Word, MS Excel and MS Access).</li> </ul>
<ul style="list-style-type: none"> <li>• Read through the data.</li> <li>• Wrote memos.</li> <li>• Developed qualitative codebook.</li> </ul>	<ul style="list-style-type: none"> <li>• Exploring the data</li> </ul>	<ul style="list-style-type: none"> <li>• Visually inspected the data.</li> <li>• Conducted descriptive analyses.</li> <li>• Checked for trends and distributions.</li> </ul>
<ul style="list-style-type: none"> <li>• Coded the data.</li> <li>• Assigned labels to codes.</li> <li>• Grouped codes into themes (or categories).</li> <li>• Interrelated themes (or categories) or abstract to smaller set of themes.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyzing the data</li> </ul>	<ul style="list-style-type: none"> <li>• Chose appropriate statistical tests.</li> <li>• Analyzed the data to answer the research questions.</li> <li>• Reported inferential tests, effect sizes, and confidence intervals.</li> <li>• Used quantitative statistical software programs (MS Access, MS Excel, and SPSS).</li> </ul>
<ul style="list-style-type: none"> <li>• Represented finding in discussions of themes or categories.</li> <li>• Presented visual models, figures, and/or tables.</li> </ul>	<ul style="list-style-type: none"> <li>• Representing the data analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Represented results in statements of results.</li> <li>• Provided results in tables and figures.</li> </ul>
<ul style="list-style-type: none"> <li>• Assessed how the research questions were answered.</li> <li>• Compared the findings with the literature.</li> <li>• Reflected on the personal meaning of the findings.</li> <li>• Stated new questions based on the findings.</li> </ul>	<ul style="list-style-type: none"> <li>• Interpreting the results</li> </ul>	<ul style="list-style-type: none"> <li>• Explained how the results address the research questions.</li> <li>• Compared the results with past literature, theories, or prior explanations.</li> </ul>

Adapted from: Patton, Michael Quinn. (2002). *Qualitative Research and Evaluation Methods* (3rd ed.). Sage.

## CHAPTER 5: FINDINGS

The results of this research are described and discussed in the following three thematic sections along with a brief discussion comparing the findings of the three TPD models, a comparative evaluation of the three TPD models, at the end. These themes include findings about the 2-year in-service teacher education, short-term teacher training workshops and teacher learning circles.

### 5.1 Two-Year In-service Teacher Education

Teacher Training Colleges (TTCs) are managed by the Teacher Education Directorate (TED) within the Ministry of Education structure. Teacher education is highly centralized in Kabul, and, thus, the TED dominates the whole scene. Hiring staff and faculty, preparing curricula and syllabi (for both in-service and pre-service programs), admissions (pre-service), policies and development projects in provincial and district TTCs across the country are all controlled by the TED in Kabul.

According to the mission statement of the Ministry of Education, the TED's mission is "to build a national cadre of qualified school teachers to improve the learning achievement for all students" (Ministry of Education, 2007, p. 15). TED's mission also emphasizes educating practicing teachers (in-service) and high school graduates students (pre-service) in subject matter, pedagogic skills, student psychology and provide them with opportunities to practice teaching (practicum) in order to support schools provide quality teaching services in classrooms. According to the Ministry of Education, "Existing teachers who are Grade 12 graduates can enroll in a two year in-service program that takes place in a TTC after school hours. The curriculum for the two-year pre-service and in-service programs is identical; teachers who complete the in-service program are awarded the same teaching diploma as those who complete

the two-year pre-service program” (2007, p. 34). TTC pre and in-service programs focus on improving three key areas of teachers’ professional knowledge and skills: 1) subject matter, 2) subject-specific teaching skills, and 3) general pedagogic knowledge and skills. The TTC curricula for both programs are constituted of courses, practicum and extra-curricular activities. The courses involve areas such as subject matter, general pedagogy, foundations of education and general education. The practicum includes observation and practice teaching. Extra-curricular activities include school visits, attending teaching-related conferences and training workshops.

The pre-service students are accepted after all high school graduate students take the national higher education entrance exam (Kankor) and are introduced by the MOE and Ministry of Higher Education (MOHE) to TED. Provincial and district TTCs receive lists of students from TED for their in-service program each year. The in-service program entry is different. School teachers that completed grade 12 of high school are qualified to apply for the in-service program in their local TTCs and enter the program. However, they have to be introduced by their school and recommended by the district, if the teachers apply in district TTC or, the provincial education department (PED).

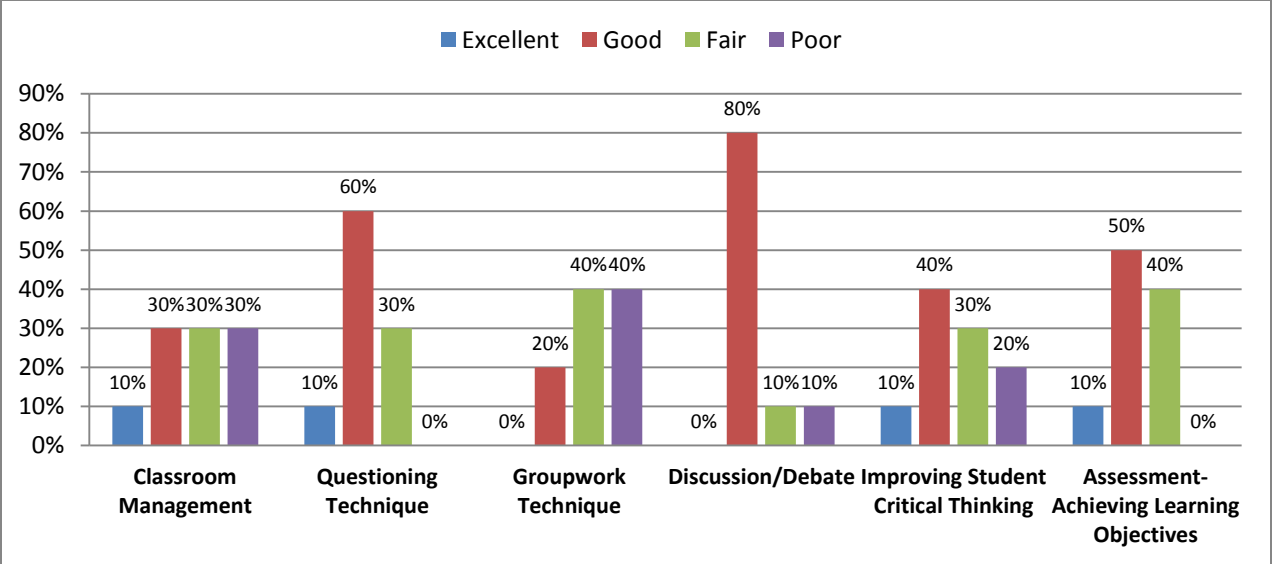
To address the need for quality teaching service in schools across the country, MOE invested in expanding the network of TTC. In the year 2011, there were 22017 students in the in-service and 20415 students in pre-service programs (Ministry of Education, 2011). Although MOE increased the number of TTCs in provincial capital cities and district towns but a lot majority of teachers (approximately 66000) who teach in semi-urban and rural areas lack access to TTC in-service program due the school distance from TTCs (Ministry of Education, 2011). In this section I, based on the findings of this research, explore the effectiveness the in-service

program – by looking at different aspects of teacher, students and school administration performance with respect to the TTC in-service program and its impact on improving teachers' quality.

Based on the observation, 40% of teachers had lesson plans prepared for their classes. Out of these teachers that had lesson plans, 60% did not clearly describe the steps (e.g. learning objectives, teaching learning activities, assessment, etc.) of their lesson plans. In the interviews I held with these teachers, most of them stated that they are provided with rigid formats for their lesson plans by the Ministry of Education that take their initiative away from them. They implied that teachers need to be provided with opportunity (freedom) for preparing their own lesson plans; according to their own knowledge of their classroom settings (e.g. needs and challenges).

Those who did not have lesson plans for their classes, in the interviews, described the reason as they are well-experienced in teaching the class for many years and, thus, they do not need to have plans written on papers. One of the teachers stated, "I have been teaching this grade [(5)] for the last 4 years. I have the whole content of the textbook in my mind. I do not feel I need to have a written plan on paper."

Based on the interviews and observations, I found out that most of the teachers are paying more attention to delivering the textbook content to students rather than the students' learning. In other words, most their teaching and learning methods were content-centered rather than learning-centered which, the later, emphasizes learning-for-life goals and activities (Fink, 2005). The following analysis of the observation checklists gives us more detailed information about the teaching/learning activities teachers used in their classrooms.



**Figure 3- TTC In-service Program: Teaching/Learning Activities and Assessment (Observation Forms)**

According to the above graph, teachers’ classroom management falls below average. This includes classroom arrangement, time management, organizing students when using various activities (e.g. group-works, skits, games, etc.). Their use of questioning and discussion techniques are more useful (higher than average) than their use of group-work which, according to the data, falls below the average (40% fair and 40% poor). A large number of teachers did not use group-work in their classrooms. Based on observation notes and interviews with teachers, the size of the classrooms (small), quality of furniture (metallic tables and chairs), the number of students (over 35 students) in a single classroom and the amount of time allotted for each session (45 minutes for the whole session) made it hard for a few teachers to use group-work activities. Despite these challenges, as observed, some teachers used group-work technique without having students move their chairs or tables but had them to work in groups of four colleagues sitting next to them. In her interview, one of the teachers who used group-work in her lesson stated, “There are many ways to use group-work in any type of classroom settings. I always use group-work and my students like working in groups a lot.” Another teacher stated, “I know it is not

easy to use group-work in a small classroom with a large number of students. Therefore, I have my students work in small groups with their colleagues sitting next to them.”

The above graph also shows that teachers used their time to improve the critical thinking skills of students significantly ‘good’. As observed, some of the teachers had students discuss the topics in a larger group and encouraged everyone to participate in the discussions. A few of these teachers let students ask each other questions further analyze the topics from others. During this process, these teachers, whenever needed, asked the whole group critical questions about the topic and let them think about and discuss the answers in groups. Based on my observations, using questioning technique and provision of opportunity for students to think and discuss issues around the topic in groups were among significantly eminent qualities most of the teachers in this sub-sample performed in practice.

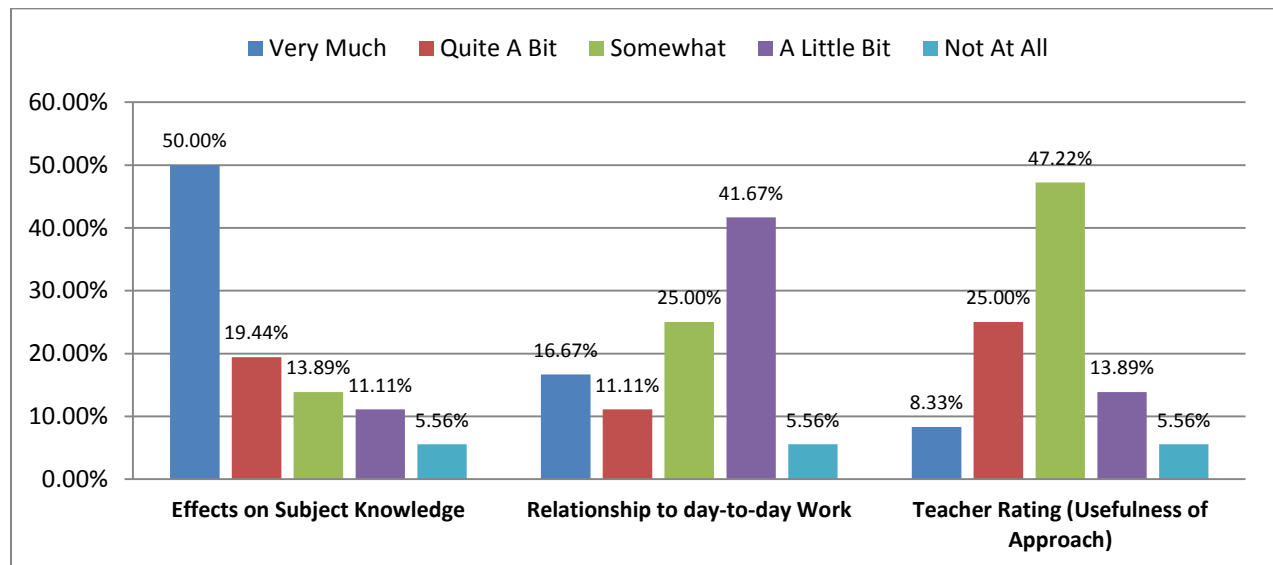
Student assessment quality is also a comparatively high quality aspect of the teaching which this group of teachers indicated in their classrooms. However, as observed, these assessments were content-centered and, thus, did not connect the topic beyond the textbooks. These assessments were not directed to further the pupils’ learning through connecting the topic to pupils’ lives. In the interview, one of the teachers asserted “We are supposed to teach the topics and content of the textbook and make sure students learn them very well. We just do not have much time to relate each and every topic beyond classroom, school and curriculum and further discuss them.” Among all teachers that were observed from this category (TTC in-service program graduate), one teacher (ecology subject) outstandingly related the topic to students daily life issues and living environment. During his session, he began discussing the hygienic and health issues in the local environment, how and why people suffer from various diseases (e.g. diarrhea, tuberculosis, malaria, etc.). He mentioned examples of school kids and local known

individuals that were affected due to pollution. He then asked students to tell stories of people they knew who suffer from similar illnesses and why/how they were affected. The whole class engaged in discussion, telling stories, discussing issues, unpacking the factors, finding solutions and proposing ways to address the problem. Along these discussions and activities, the students learned about the problems caused by pollutions in their local communities, the importance of ensuing environmental cleanliness and creating and maintaining the living environment hygienic and healthy. In my interview with this teacher, he said, “Teachers can always find ways to connect topics and content to students’ day-to-day life and their local environments. That is why we educate children; to improve their live skills, not to give them some knowledge and skills that they can never use them in their real life.”

Based on the observations, a few (30%) teachers used teaching aids in their classrooms. Most of the teachers that did not use teaching aids belonged to schools in semi-urban and rural areas. Some of the key reasons that teachers did not use teaching aides included, but were not limited to, lack of teaching aids, did not know how to use local/environmental materials, could not move the materials (for example for biology subjects – as observed) to classrooms, lack of laboratories, and so forth. In interviews with this group of teachers, most of them explained that TTC in-service program lacks courses that focus on specific subjects helping teachers learn how to use locally available materials in their day-to-day classrooms.

A key notion that brought up in interviews with teachers was that the TTC in-service program is not connected to schools and teachers’ day-to-day classroom needs, curricula and activities. One of the teachers said, “The content of courses in the TTC [in-service program] does not match the primary level school curriculum at all. I could never use the concepts, knowledge and skills I learn from TTC courses in my everyday teachings; as the TTC courses contain

materials and discuss topics that are far higher than what we teach in the primary level.” To further analyze the relationship of in-service program to teachers’ needs in classroom, its impact on teachers’ subject knowledge and how teachers find the program as an approach for addressing their professional needs, the following graph displays teachers’ responses.



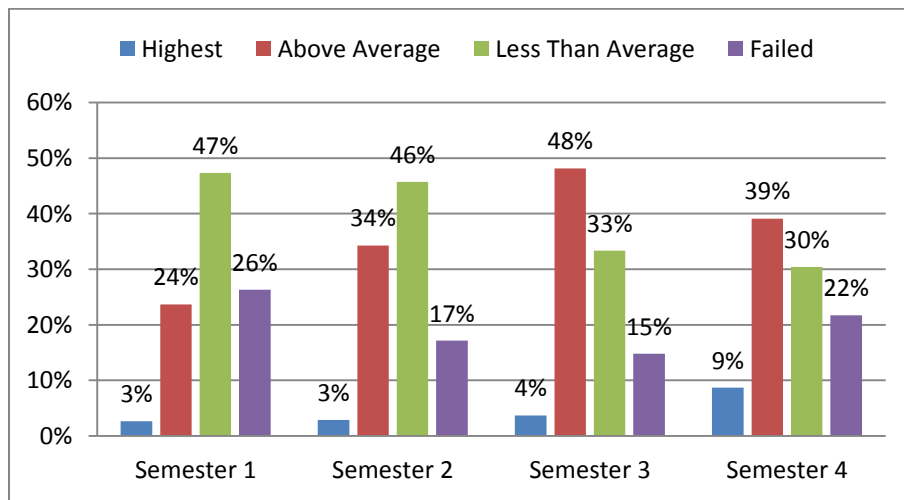
**Figure 4 - TTC In-service Program Effectiveness (Questionnaires)**

According to the teachers who completed the questionnaires, TTC in-service program helps teachers improve their content knowledge of the subjects they teach at schools to a great extent. According to teachers, based on the interviews, TTC curriculum and courses contain various topics that help practicing teachers improve their knowledge of the content of courses/subjects they teach in schools. However, they also pointed out that a significant amount of content focuses on topics are never discussed in school – for example in the whole primary (grades 1 to 6) and secondary (grades 7 to 9) levels.

One teacher in his interview stated, “TTC in-service is aimed to upgrade primary school teachers’ qualification and to help them improve their knowledge and skills related to primary level curriculum. On the contrary, the in-service program goes far beyond the primary level and encompasses topics that are even above grade 12. Some examples include courses on algebra,

mathematics, languages, physics, chemistry, biology, etc.” What I could infer from the results shown in the above graph, the interviews and classroom observations is that TTC in-service curriculum significantly improves teachers’ knowledge of subject matter in all disciplines. However, the courses contain topics that are irrelevant to school curriculum and teachers’ day-to-day needs to a considerable extent. The relationship of the in-service program with schools’ and teachers’ day-to-day professional needs is rated extremely low by teachers – as shown in the above graph. Perhaps this is one of the reasons that teachers rated in-service program somewhere between the average level as compared with the TLCs and short-term TPD trainings.

An analysis of student performance from an urban school gives us some more useful information regarding the impact of teaching quality (i.e. teachers graduated from in-service program) on student outcome. The following graph displays student performance along four semesters (2 academic years – 2010 and 2011).



**Figure 5 – TTC In-service Program: Student Performance (Student Document Review)**

In the above graph, we see a trend in students’ outcome along four semesters. Student performance improved slowly in the first three semesters, but in the last semester it slightly drops

down. The following table looks at another aspect of the above issue, from the same group of students.

**Table 6 – TTC In-service Program: Student Drop-out**

<b>Grade 4</b>		<b>Grade 5</b>	
Total # of Students in Mid-term Exam	Total # of Students in Final Exam	Total # of Students in Mid-term Exam	Total # of Students in Final Exam
38	35	27	23

Although student drop out could be due to various factors (such as safety, security, health, livelihood, and local cultural sensitivities – especially about girls’ education), teaching quality, classroom and school environment, culture, and how all these respond to individual student’s needs are among the major factors. Teacher who taught this group of students along four semesters explained this issue of slight decrease in students’ performance by connecting it to drop off issue. She explicated, “Although we had drop outs in the last four semesters, [during] this semester a few of the most intelligent female students dropped off school. Previously, students who did not do well would leave the school.” She added that during the last semester, on one hand, some of the female students were disallowed by their families (not to attend school) and, on the other, a few students moved from the town elsewhere.

In general, based on the findings, TTC in-service program fairly helps teachers improve their performance in the classrooms. It substantially improves teachers’ knowledge of the subject matter. It fairly improves teaching techniques and pedagogic skills of teachers; related to specific subjects they teach at their schools every day.

The in-service teacher training programs is designed as a one-time treatment for practicing teachers. It lacks follow-up activities, observations and or assessments. There’s a lack of relationship between the school curricula, particularly primary level curriculum, and TTC curriculum in the structure, design and delivery of the in-service program. The in-service teacher

education is assumed to be responsive to all professional needs of teachers by training them courses along four semesters. Teachers are not provided with opportunity to design their own program of study, choose their courses and seek for help to improve their performance in their day-to-day work. The program underlying assumption does not affirm the fact that different teachers have different needs and, thus, seek for different treatments (knowledge and/or skills).

The in-service program strongly assumes that, within two years of studies at TTC, teaching quality of all teachers that attend this program highly improves and their lifelong professional needs are addressed. Despite these assumptions, the content of the in-service program curriculum contain general education more than specific disciplines. The practicum aspect of the curriculum provides little opportunity for teachers to practice, observe and apply the knowledge and skills they learn from the program in real classrooms.

The teaching methods in the TTC, based on my interviews with TTC lecturers and the director, are based on the curricula and syllabi provided by the Teacher Education Department. Lecturers' teaching style mostly center around the content rather than to connect each and every topic with teachers' daily work in schools. The program lacks evaluation, observation and feedback beyond the content of courses. "The current system of teacher education does not focus on grade-specific skills and little attention is paid to practical teaching skills. Therefore, even those teachers who have completed 14 years of education or a university degree may still lack the skills and attitudes required to be effective teachers" (Ministry of Education, 2007, p. 33).

Among various factors, the TTC certificate is the biggest incentive for teachers to join and to complete the 2-year in-service program. According to the MOE policy, grade 14 (obtaining at least 2-year TTC diploma after 12 year school studies) is the minimum requirement for teaching qualification. Teachers that are TTC certified are considered qualified. Attributing

TTC certificate to quality of teaching (or being qualified teacher) is the strongest influence teachers enter and complete this program as it not only upgrades teachers' qualification but also it promises increase in their salary. This brings us to the notion of accountability of both the in-service program (as an institution/program that certify teachers for having highest teaching qualities), education department and schools for ensuring quality of teachers' performance after receiving their TTC certificates. There's no institution that follows up on teachers – ensuring quality of performance – after completing course, passing finals, and receiving their certificates.

The literature supports that for teacher change (improvement), the TPD system is required to pay close attention to the types of learning materials teachers use for learning purpose, the coherence and relevance of learning materials and activities to teachers' daily work (classroom activities and school curriculum), and the pedagogical practices and processes teachers engage in when learning. Teachers improve their learning most when and if activities encourage them to participate in practical aspects of learning process (Putnam & Borko, 2000), the learning materials and activities are integrated into their day-to-day work (Hawley & Valli, 1999), and the pedagogy the learning process is active and involves teachers in the process as well as require them to reflect how they should use the knowledge and skills when teaching pupils (Borko & Putnam, 1997). The literature highlights that it's less likely for teachers to change practice as a consequence of learning activities that happen through merely memorization of new knowledge (Garet et al., 2001; Wayne et al., 2008).

The next section gives another perspective on helping teachers improve; a different model for helping teachers to become better practitioners. In the next section I look at the impact of short-term TPD trainings on teachers' performance.

## 5.2 Short-term Teacher Professional Development Training

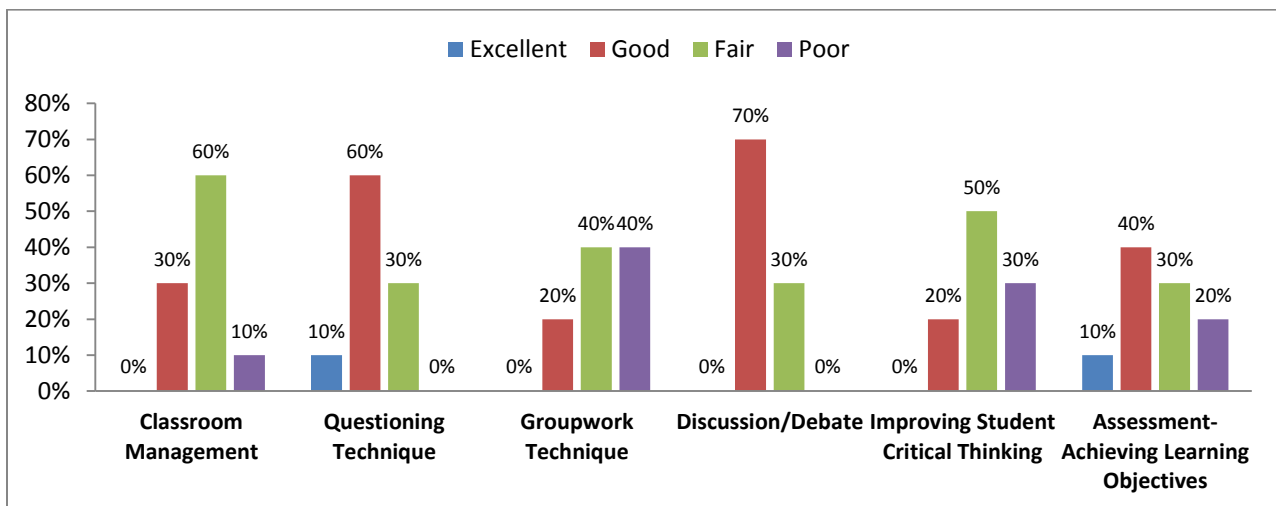
Ad-hoc teacher professional development (TPD) training has been widely used as a core approach to address teachers' immediate needs in the country since 2002. These TPD trainings have been conducted as short-term (with different time lengths, but generally less than a month long) workshops. The Ministry of Education initiated the Teacher Education Program (TEP) in early 2000 which intended to address immediate needs of thousands of teachers; i.e. newly hired, with traditional styles and or under-qualified teachers. The main supporters of this initiative (TEP) included USAID, DANIDA, World Bank, UNICEF, and Aga Khan Foundation (Ministry of Education, 2007). For instance, in 11 provinces, during 2007 and 2008, 1,640 teacher trainers and 50,000 teachers were trained on subject knowledge and pedagogy through two two-week long workshops through the "District Teacher Training Teams (DT3)" (Ministry of Education, 2011, p. 21). DT3 was a component of the Building Education Support Systems for Teachers (BESST) project that aimed to deliver the TEP policy.

Alongside the MOE, national and international non-governmental organizations (I/NGOs) made concerted efforts to respond to teachers professional needs through designing and implementing numerous short-term TPD projects. A few of the international organizations include Aga Khan Foundations (AKF), Norwegian Rescue Committee (NRC), Save the Children US, Creative Associates International Inc. (CAII), and many others. In Baghlan province where I conducted this research, similar to the rest of the country, teachers received various short-term trainings including the TEP INSET-I (In-service Education for Teachers I) and INSET-II (In-service Education for Teachers II).<sup>1</sup> Among many, AKF's Regional Education Program activities

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<sup>1</sup> INSET-I and INSET-II were two major components of the TEP program for improving teachers' quality of performance (Ministry of Education, 2007). INSET-I mainly aimed to address general pedagogic needs of teachers while INSET-II tended to improve teachers' knowledge and skills for specific disciplines. Each of the both training modules was delivered within two weeks. All teachers across the country received these trainings within the years

are accounted as most influential and effective teacher support activities. AKF education program started school and teacher support activities in this province since 2003 and thereafter implemented many short and long-term projects. Among all, the early grades teacher support project was considered the most beneficial. This project contained three modules for three different disciplines; focusing on early grade teachers (grades 1 through 3). However, in most cases, the training participants constituted of the whole primary level teachers (grades 1 through 6). This project contained three major components that focused on teaching techniques and providing teaching aids for language, science and mathematics. Below, includes the analysis of observations, interviews, questionnaires and document review of teachers that participated in these short-term TPD trainings.



**Figure 6 - Short-term TPD Training: Teaching/Learning Activities and Assessment (Observation Forms)**

The results of the observation forms, displayed in the above graph, give us some interesting information about teachers' performance in classrooms. Classroom management and organization, discussion and questioning techniques of the teachers observed were among the highest rated qualities of teaching/learning activities used by teachers. Group-work and

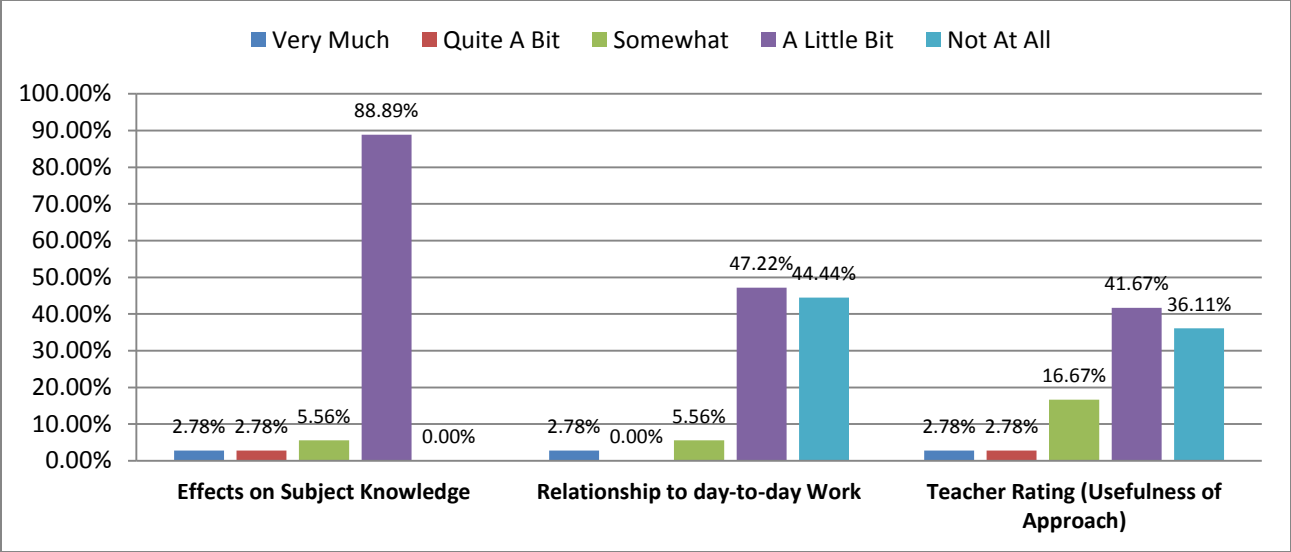
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2008 to 2011. Although the content focus of the materials aimed the primary level teachers, teachers from secondary and high levels received the trainings as well.

assessment techniques were among the lowest rated activities teachers used. Overall, the quality of teaching and learning activities used by teachers show the effects of short-term courses (such as INSET-I and II, AKF's interventions, etc.) on improving teachers' performance.

Most of the teachers interviewed explained that some of the AKF training workshops contributed to their change in behavior and the use of various teaching and learning activities. Interestingly, most of the interviewees didn't endorse the INSET-I and INSET-II training workshops as effective interventions; i.e. trainings that were conducted by the MOE through TEP program. One of the interviewees stated, "the INSET-I discussed general pedagogic topics and included more than what teachers could internalize within twelve half-days [(6 full days)]."

The other key issue that the interviewees pointed out is the quality of trainings conducted, in terms training venue, training materials, training aids, trainers' quality, and so on. Another interviewee expressed his impression as such, "I have a BA in education. I have been teaching different grades for over 15 years. The TEP program hired newly school graduate youths that had no teaching or training experience and paid them to train us. Most of their trainers didn't have a clue of the content or about the topics they were training." Most of the teachers I interviewed explained that these short-term trainings most often, especially in the case of TEP workshops, contain numerous topics and concepts but are delivered within a very short amount of time; for example a few days, a week or two-week long only. The following graph confirms these teachers' concerns with regard to the role of short-term trainings in improving teachers' subject matter.

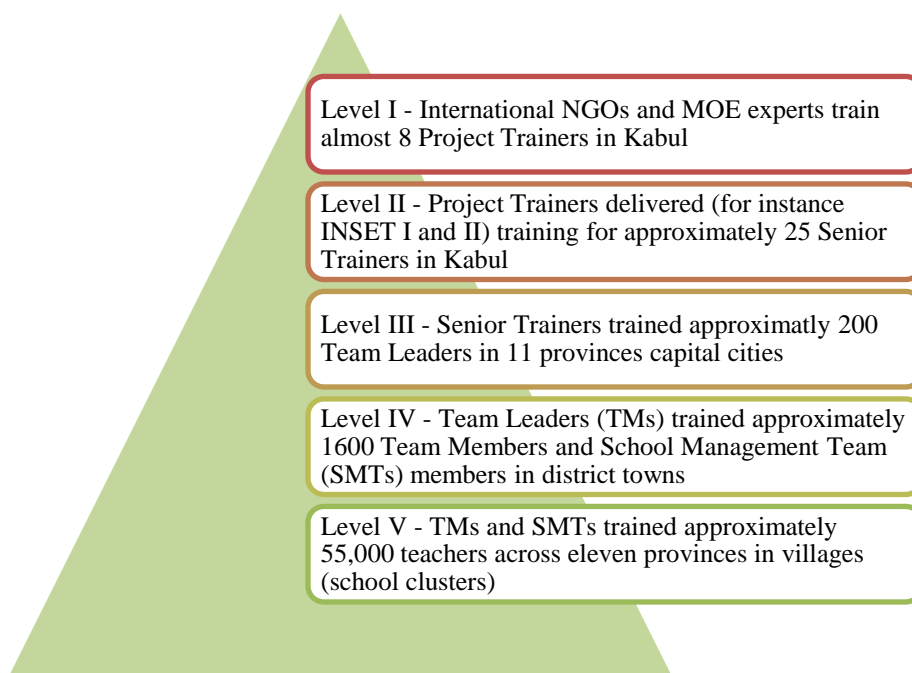


**Figure 7 – Short-term TPD Training Effectiveness (Questionnaires)**

The results indicate that these short-term trainings do not expand teachers’ subject knowledge as much as TTC in-service program does. As stated above, in interviews, teachers pointed out time constrain as an important factor that cause TPD trainings fail expanding their subject knowledge. A few other teachers raised the issue of low quality of training materials in their interviews. One of the interviewees stated, “The training materials for trainings are produced by international experts that work in NGOs and speak and write in foreign languages. Most of the translators lack qualification and background in education and, therefore, fail to translate the materials using appropriate educational medium/terminology.” Another interviewee added, “The international experts who produce training materials for TPD trainings lack knowledge of the context, education system and most importantly the curriculum we use in the school. They borrow their knowledge of their own context, put it in training materials and deliver them to us. Often, I have found training materials irrelevant and inapplicable in the context our education system.”

In the interview I had with a MOE (TEP) trainer and an AKF education program trainer, they both mentioned another important issue, and, that was the cascade model (also confirmed by

the Ministry of Education, 2007, p. 35) of all TPD training projects. For instance, a TEP trainer explained the training model used by MOE partners in BESST in 11 provinces as following.



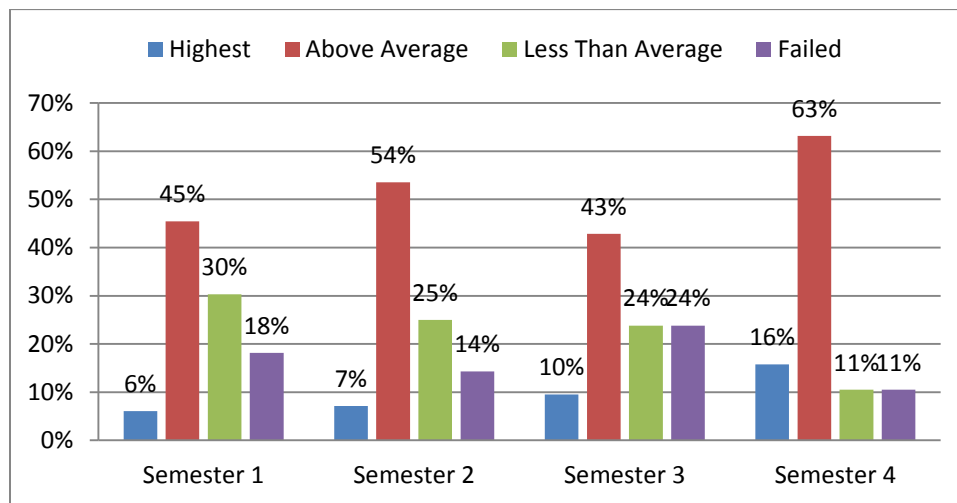
**Figure 8 - Cascade model used by MOE TEP - BESST Project Phase I**

**Adapted from Ministry of Education. (2008a). In-school teacher support activities (ITSA) Manual. Building Education Support Systems for Teachers, Afghanistan.**

We clearly see the flow of training across 5 layers of the cascade. Obviously, there's a significant decrease in quality of training in each layer and, thus, by the time the training reaches teachers (the target beneficiaries) the quality drops to its lowest level. The TEP trainer in his interview also pointed out that the time gap between each levels of the model also affected the quality tremendously, "It took participants and trainers days and sometime weeks to return to the field, after taking each training, prepare for delivering the training for their target participants [i.e. next layer of the cascade model], and deliver the training to them." He added that, along this process there was no support and or supervision of how the trainings were delivered in the field.

Figure 7 also shows that most of the teachers find these short-term trainings not adequately relevant to their day-to-day classroom and individual needs. A teacher in her interview stated, “We are never asked about what we need but every once in a while the principal tells us to participate in a training workshop that is delivered by some NGOs.” This brings us to the notion of learning about the needs of teachers before planning a treatment for them; something that is widely ignored by all parties involved in teacher education in the country.

However, as seen figure 7, it is inferred that short-term trainings are beneficial for improving some aspects teachers’ quality; for instance teaching and learning techniques if not subject matter. The question is do short-term trainings impact student outcome? The following figure gives us an example of students’ performance; those that are taught by a teacher who participated in short-term TPD trainings. It’s important to add that the document review of this group of students belong to a semi-urban area school.



**Figure 9 - Short-term TPD Training: Student Performance (Student Document Review)**

Students’ performance, as shown in the above figure, considerably increased over the four semesters – except for the third semester which shows higher rate of failing students compared with the first and second semesters. Increase in the number of students who achieve

the highest grade (i.e. perfect score) is not something very common in Afghanistan. To learn about why student learning outcome dropped down in the third semester, I interviewed the teachers. His response was, “There were a few times last year that kidnapping threats spread out in the local community – not only posing to students and teachers but also those that work in governmental institutions as a whole. A large number of families, those that worked in I/NGOs and or governmental institutions, moved to the provincial capital city [(Pul-e-Khumri)].” I inferred from her statement that those students who left school were among the high performance pupils. The following table gives us a snapshot of the drop-out rate of this group of students along the last four semesters. I also inferred from these results that student drop-out or retention can not be easily used as indicators of successful teacher training but rather reflects the micro political climate of the context students learn.

**Table 7 - Short-term TPD Training: Student Drop-out**

<b>Grade 4</b>		<b>Grade 5</b>	
Total # of Students in Mid-term Exam	Total # of Students in Final Exam	Total # of Students in Mid-term Exam	Total # of Students in Final Exam
33	28	21	19

It’s quite shocking to see a considerably high drop-out rate in this example group of students, an instance of a school located in a semi-urban area. Based on my observation of the local community and what I found out from interviewing the school principal and teachers, the local community is eager to send their kids to school. However, in very close neighborhood Taliban factions and insurgents are extremely active and they mostly pose threats to local community for sending their kids to school and or working for or on behalf of the government and I/NGOs. Frequent movement of families to and from the community is known as another critical factor affecting students drop out and transfer from the school.

From the above analysis and results, I infer that short-term trainings are useful in improving teachers' subject-specific teaching skills. An example of such trainings is the AKF early grades TPD project that focused on educating teachers on how to teach basic mathematics, language and science using different techniques (e.g. games, group-work, skits/role-plays, and so forth). Another focus of this project was, according to the teachers interviewed, the use of local materials as teaching aids. One of the teachers explained, "We didn't know how to use local materials for various topics in the class. The AKF trainings taught us, for example, how to use games for teaching alphabets, words, etc. They also thought us how to use, for instance, beans, peas, and so on to teach mathematics." Not all short-term trainings are beneficial as the AKF's. Even the TEP program, according to some teachers, helped them learn about student psychology, general pedagogy, and subject-matter.

Teachers generally need technical and professional support in various areas and in different points of time. Teachers benefit from TPD trainings if they are asked about what they need before designing and delivering trainings. From the interviews with teachers, I learned that most of the project-based TPD training interventions are designed and delivered without conducting robust needs assessments – i.e. without knowing what teachers need. These projects (short-term courses) also do not pay attention to individual teacher's problems; that is not taking into account that different teachers, in different school and classroom settings, need different help and supports. The short-term trainings lack follow-up activities. Some teachers criticized this model stating that project trainers come and train us something (e.g. TEP INSET-I and INSET-II) and then they never show up to see whether or not we apply the knowledge and skills we learned from those trainings.

We can learn from this critique that such trainings lack sustainability – unless there’s a mechanism established in place to follow up on activities and the use of knowledge and skills teachers learn in practice. Teachers need continuous support and help (such as refresher trainings) on particular concepts, activities and practices. Teachers improve more effectively if they have access to support inside their schools or local communities in the long run. Ad-hoc and short-term trainings without follow up activities hardly address the long-term needs of teachers at schools. Effective teacher professional development requires continuous and accessible supports and resources for teachers. In the next section, I analyze the findings on the In-school Teacher Support Activities (ITSA) through the MOE (TEP/BESST Project) formed teacher learning circles (TLCs). I use the results to see whether teachers can become better practitioners through working with one another collaboratively; reflecting on their own practices and needs and helping one another to become better practitioners.

### **5.3 Teacher Learning Circles**

Within 2008 and 2011, Teacher Learning Circles (TLCs) were formed through the national Teacher Education Program (TEP) in all schools throughout the country; as a component of the Building Education Support Systems for Teachers (BESST) project.<sup>2</sup> By definition, TLCs are small groups of teachers getting together to reflect on and share their ideas, experiences and skills, generally supporting one another to become more effective teachers.

TLCs were formed based on the assumption that teachers would work together collaboratively

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<sup>2</sup> TLC was a component of the ITSA (In-school Teacher Support Activities) designed and implemented through BESST project (TEP). ITSA constituted of three core components: 1) TLC – groups of teachers in schools that work together collaboratively to help one another become better practitioners. 2) Formative Classroom Observation and Feedback – to train teachers to observe one another’s classrooms and provide feedback using formative approach (to help one another) rather than summative (judging). 3) School Improvement Program – councils formed of school administration and community elders and members (students’ parents) to work together collaboratively to develop their local school, using available local resources, and address the physical needs of school.

and build the capacity of those teachers who need help in specific areas (teaching methods or subject matter). It was also assumed that TLCs could lead to great improvements in teaching quality and student learning (Building Education Support Systems for Teachers, 2008, 9). The underpinning assumption for this TPD model was, as Opfer et al. (2011) assert, teacher change and improvement occurs as a consequence of interaction among teachers; that is intersection of their knowledge, skills, and experiences that form teachers' orientation to learning.

According to the In-school Teacher Support Activities manual (Building Education Support Systems for Teachers, 2008), TLCs (i.e. teachers) must meet on a regular basis (such as weekly) to work together on issues they experience in their classrooms and help one another to address those issues. The notion of collaborative learning has been a very new concept for teachers. Gone through numerous turbulences and conflicts, ethnic and political disputes, I initially assumed that there are certainly many teachers that might find themselves uncomfortable working with their colleagues. I also believed that gender issue could be another challenge affecting the TLC activities. Along my data collection, these issues imply the necessity of paying close attention to emotional reactions of target groups; something that, as Reger asserts, much of the academia does not take into account when conducting social research (2001).

My first visit was in an urban high school. It's noteworthy that I didn't take notes during my first visit as I intended to establish relationship with teachers, personally and professionally, so that they were comfortable when and if I return. As Emerson et al. (1995) assert, the reason I did not take notes during my first observation was because I had to establish close tie with participants, involve in their activities, and assure them that I am concerned about their professional live and want to do my best for their improvement. In my second visit (observation), when I had to take notes – while paying attention to every detail – I had to frequently remind

participants of my research purpose and the informed consent conditions (confidentiality and anonymity of each of them) that we all agreed upon. My experience affirms Guillemin and Gillam's argument that emphasize the notion of "ethical dilemmas and concerns [as] part of the everyday practice of doing research – all kinds of research" (2004, p. 262). This means, I had to take notes when they were comfortable with it and when they were discussing my research related issues.

The TLC meeting took place in the Teachers Office, in the middle of the principal and head-teacher's offices. There were teaching aids and materials, furniture and enough space for all 12 teachers to sit and work on activities inside the room. The TLC meeting was supposed to start at 11:30 AM and continue until 12:30 PM (an hour-long session). I was surprised seeing teachers coming 20 to 30 minutes later than the time the meeting started. The last teacher arrived at around 12:01 pm and till this time the whole group of teachers divided in three groups talking about their personal life issues- nothing professional such as school, classroom, teaching and or student related. I was very interested to learn why some of the teachers are coming very late and the rest have to wait half of their time for one or two latecomers. I was also interested to learn why the group does not have an agenda for their meeting. Based on my observations, I was surprised by noticing lack of administration support and supervision of the TLC activities by school management and leadership.

Until 12:05pm, teachers continued talking about the policy reform regarding teacher salary, a policy that was recently formulated and applied by the MOE. This was something completely unrelated to professional development purpose of the TLC meeting. At 12:05 three teachers disrupted the whole group conversation. These teachers brought up the issue of students' test results from the last mid-term exams. They made their point that a lot of the

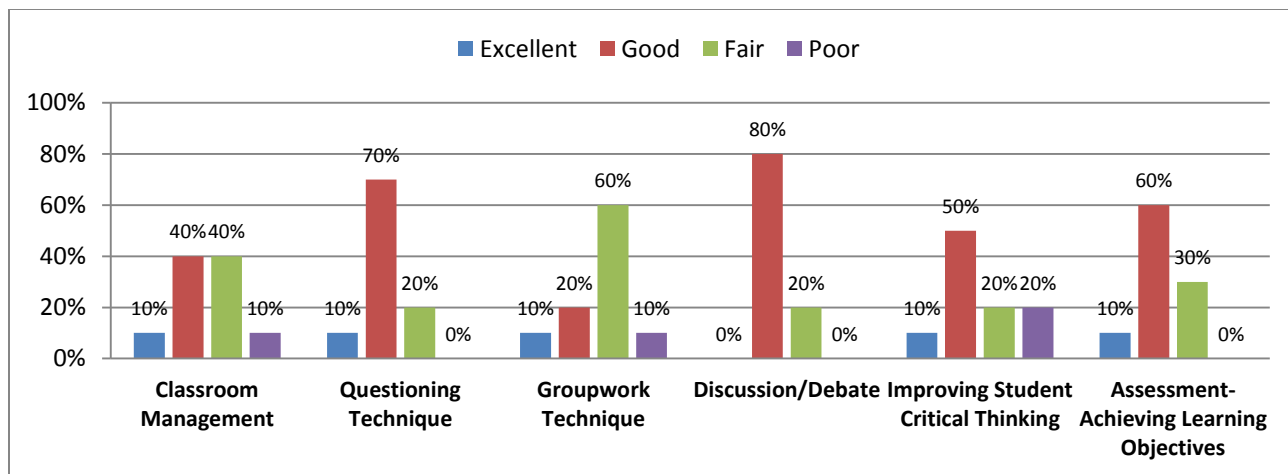
students, according to the school records, did not perform well in the mid-term exams. Their concern was to discuss issues related to why students did not do well, whether it was because of the tools (test papers, questions, rubrics, methods, etc.) teachers used or teaching quality during the last semester. They also mentioned that some of the students who received higher grades came from rich and politically powerful communities, as well as relatives of teachers and school staff. By hearing this, I became happy that, after all, the groups start discussing something relevant to TPD. What happened immediately after was the opposite of what I was expecting.

This group of 12 teachers, based on what I observed that day, was formed of three interest groups – each taking opposite stances against the other two on almost each issue related to their performance. There were two groups of male teachers and one group of female teachers. From the two male teacher groups, one was formed of 3 young teachers that were recently graduated from TTC and University and joined the school as teachers. The other male teacher group was formed of 5 teachers and all had over 5 years of teaching experience in this school. The female teacher group (4 teachers) was mixed of newly hired and experienced teachers. Initially, I assumed that each group takes defensive position because of the above factors (i.e. qualification, experience, and perhaps gender). What I observed after challenged my assumption. From the quarrel they had and the accusation they made to one another, I found out that there are various other reasons behind forming these interest groups. After the TLC meeting, I interviewed some of the teachers from the group. They stated that these teachers formed their own groups based on their ethnical ties, political background, where they are from (e.g. which province or which part of the country), even how religious they are, relationship with powerful groups and individuals in the province (such as warlords, education director, provincial governor, school principal, etc.) and many more factors that they shared among themselves.

The TLC meeting finished at around 12:45 pm; however, some of the teachers left the room earlier - showing their anger and resentment to the other two groups. Till the end of the meeting, the whole discussion looked like a blame-game among teachers and sometimes criticizing the administration and students for their failure with no rationale and evidence. During this observation, many questions raised and amused my mind; such as:

- Do teachers spend TLC time on such issues every time they meet? Is it a routine practice of TLC activity in this school?
- How about other schools, especially those not as diverse as this school? Do TLCs function the same way in those too or they work differently – focusing on professional development activities?
- Who makes sure that TLCs perform according to their terms of references created by the Ministry of Education?
- What are the implications of such TLC performance in the long run?
- What lessons can we learn from this?

My later observations challenged my above assumption about how TLCs function in other schools and whether or not it's an effective approach for improving teacher performance in the long-term. These questions and concerns constituted a major part of my interviews and observations that I later conducted with teachers and head-teachers in other schools. My pursuant observations in other schools helped me learn that there are many schools in which TLCs function effectively. The following figure displays the result of classroom observations of teachers that participated in their school TLCs regularly.

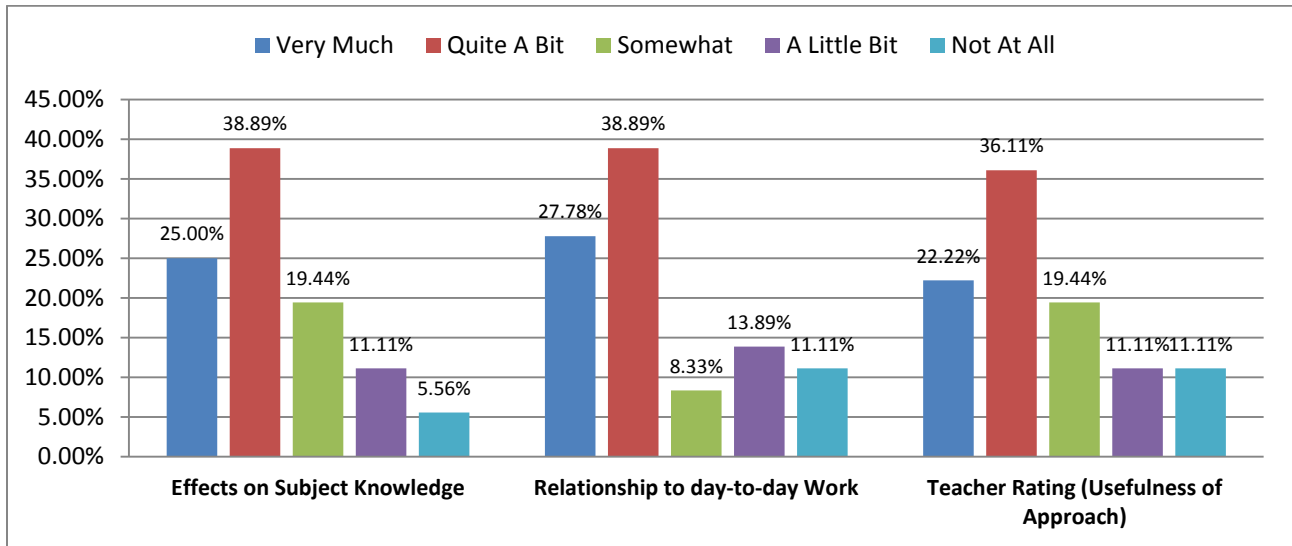


**Figure 10 –Teaching/Learning Activities and Assessment (Observation Forms)**

The above figure shows that a very few teachers performed poorly managing and organizing their classrooms. Almost all teachers performed outstandingly with using active teaching learning techniques in their classrooms. To find out how teachers who participate in TLCs perform better than teachers who participated in short-term trainings and TTC in-service program, I interviewed a few of these teachers. Almost all these teachers strongly supported the collaborative work among teachers with different levels of experience, qualifications and background. One of the teachers stated, “It’s an incredible opportunity for me as a teacher to work with my colleagues. Some of my colleagues hold BA degrees and some are TTC graduates and some other participated in various short-term TPD trainings. I have tremendously benefited from each and every one of them; each one shares some important experience, knowledge and skills with the whole group that can help us improve our teaching practice in classrooms.”

Another teacher mentioned, “We work as a team. We all know one another’s needs as we use formative classroom observation and feedback approach as a way to collect and provide information on what specific aspects of our practice need further improvement. We then discuss in TLC meetings, conduct activities and sometimes our experienced colleagues conduct

workshops and train us how improve those areas.” The following figure displays teachers’ perception regarding the effectiveness of the TLC model – using the results of the questionnaires completed by teachers.



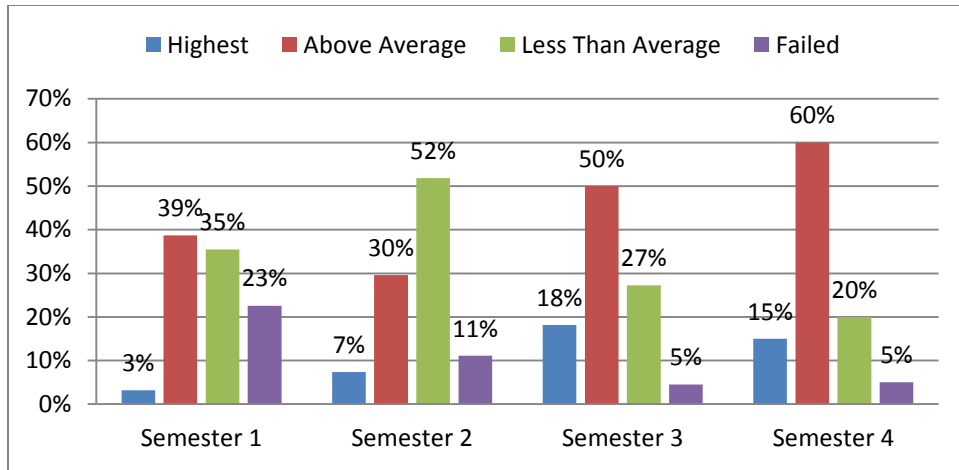
**Figure 11 - TLC Effectiveness – (Questionnaires)**

As indicated in the above graph, majority of teachers consider TLC model as an effective approach for their professional growth. However, a considerable number of teachers find TLCs ineffective or not as effective as TTC in-service program and short-term TPD trainings. One of the teachers articulated, “Our school TLC stopped functioning right after a month it was formed two years [(2010)] ago. Teachers neither had time to meet nor they were interested in working in TLCs. The principal and head-teacher did not encourage or push teachers to hold TLC meetings either.” This implies the importance of support and supervision provided by school administration for making sure that TLCs function, teachers meet and use TLC time for supporting one another.

Some teachers pointed out the notion of consistent evaluation of TLCs either by school administration or education offices. They also mentioned a few other issues that affect quality

performance of TLCs; such as including TLCs in school structure and TLC meetings part of teachers' routine responsibilities. In her interview, a teacher stated, "Participating in TLC meetings is a waste of time. Teachers use this time for their personal chitchats rather than working on their professional development. Even the school administration or education system doesn't supervise TLC activities or assess how it works. It's something extra and we don't have time for extra work; work that neither adds our salary nor it improves our quality." Also, technical support was another issue raised by some of the teachers that declared TLCs not an effective TPD model. One of these teachers explained the issue as, "Most of the teachers in our school only completed 12<sup>th</sup> grade of high school. We can meet and discuss our problems forever but it's not easy for us to find solutions and or help one another. We need support from outside of school; particularly the in-service faculty members of TTCs that are expert in this area." This raises an important issue and that is how to support TLCs (teachers) through connecting TLCs with TTC in-service program.

Despite all issues involved, in a large number of schools TLCs function and they do incredibly well – based on my observations and the results of the questionnaires completed by teachers. The following figure displays the impact of teachers' change, as a result of participating in their in-school TLC activities, and their students. The data displayed in the below graph was collected from a rural school.



**Figure 12 – TLC: Student Performance (Student Document Review)**

Student performance increased significantly during the four semesters; as indicated in the above graph. The results show a pattern of increase in higher performance and decrease in lower performance of students along four semesters. Although a considerable number of students dropped off the school, as shown in the below table, students’ achievements and outcomes consistently improved.

**Table 8 – TLC: Student Drop-out (Student Document Review)**

Grade 4		Grade 5	
Total # of Students in Mid-term Exam	Total # of Students in Final Exam	Total # of Students in Mid-term Exam	Total # of Students in Final Exam
31	27	22	20

Presumably, TLCs are defined, as Hord (1997) states, a group of teachers and school staff who are committed in working together, in a collegial environment, to improve student learning. Their activities within TLCs include, but are not limited to, sharing a vision, working and learning collaboratively, conducting formative classroom observations, providing each other with formative feedback and participating in decision-making processes. The whole purpose of this model, as defined by MOE (Building Education Support Systems for Teachers, 2008, p. 9) is to

encourage teachers work together and help one another become better practitioners. The above analysis confirms that there are various dynamics involved in and affect TLC activities and their achievements in different settings.

A large part of the findings highlight that, same as 2-year in-service program and most of the short-term trainings, TLCs also are created based on a non-contextualized, top-down and simplistic assumption. The findings also question the MOE policy that enforced and implemented this model of TPD across the country. The results affirm the fact that the policy (TLC model) was created based on a forward-mapping approach and without paying attention to grassroots, contextual problems and conditions, and structural issues that strongly affect TLC activities in the long run. A key finding encourages us to look at the larger picture, school as an organization (system), in which TLCs function. From a systems view perspective, school conditions, vision, structure, rules and culture significantly impact teachers' performance, motivation and orientation towards improving their knowledge and skills – in this case their participation in TLC activities. In other words, school norms, structure and practices, both enable and constrain teachers. In the context of Afghanistan, teachers always encounter obstacles and difficulties in applying new practices in their classrooms and, in this case, working together in a diverse group. Most often, these difficulties are because of their schools' unsupportive conditions, lack of quality leadership, little or no collegial activities, and absence of commitment to professional learning. Pedder (2006) argued that to ensure conditions that provides sustainable teacher professional development, schools need to develop processes and practices of learning organizations. In the next section, I compare the above three models to see which of these TPD models works best in the context of Afghanistan.

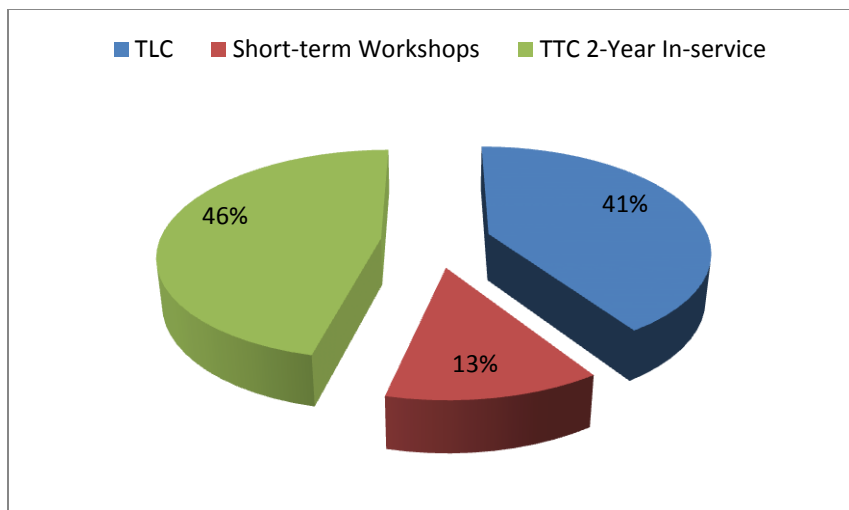
## 5.4 Which Approach Better Works

Teacher professional development (TPD) is considered as a major factor for supporting school achievements, teaching quality and students' learning outcome. Meanwhile, there are plenty researches that indicate ineffectiveness of TPD in affecting school (particularly teachers' and students') performance (Sykes, 1996; Hanushek, 2005). A few researchers (Borko, 2004; Clarke & Hollingsworth, 2002; Timperley & Alton-Lee, 2008) argue that often researchers use simplistic conceptualizations of TPD and fail to take into account how learning is embedded in work settings and lives. According to Clarke and Hollingsworth (2002) and Borko (2004) the literature on TPD does not necessarily describe how teachers learn from PD (professional development) opportunities and what conditions best support this learning.

In the context of Afghanistan, all studies and evaluations conducted so far measured or explored the effectiveness of TPD interventions for *accountability* purpose. Both the Ministry of Education (MOE) and its partner national and international nongovernmental organizations (I/NGOs) tended to respond to concerns regarding quantity, addressing previously set project/program objectives and report on whether or not teachers are satisfied with the TPD opportunities provided for them.

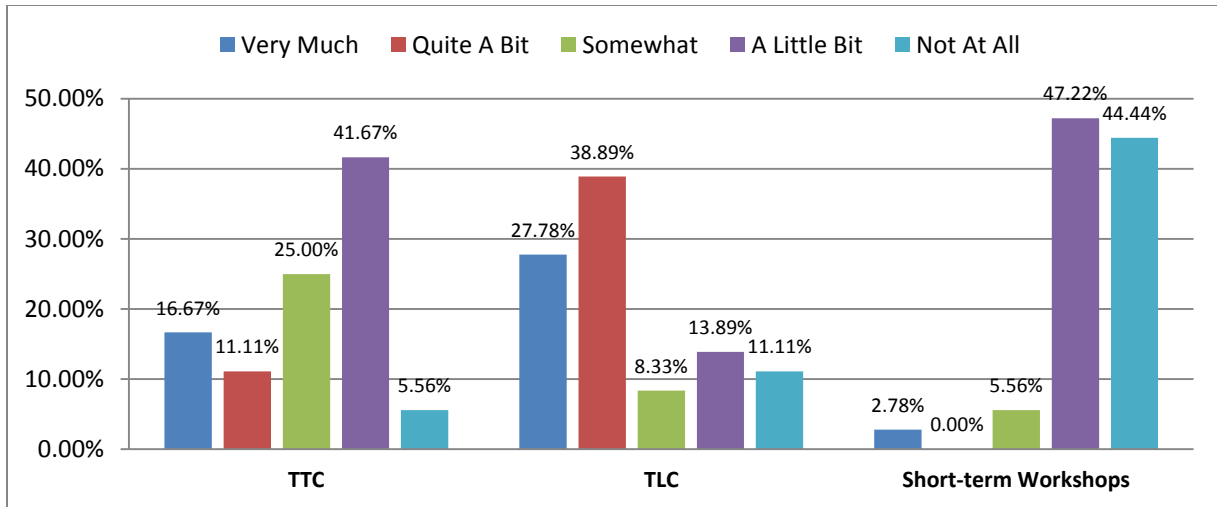
This research, using the mixed-methods approaches explores and compares the quality of three widely used TPD models in the country. It intends to find out which of the three approaches best serves in improving teachers' quality and addresses their individual professional needs and last but not least how it impacts student learning outcome. On the contrary to all studies conducted by the MOE and I/NGOs, this case study aims to *learn* and provides in-depth knowledge of the setting in which teachers work as well as their individual concerns and expectations towards their professional learning. The findings of this research imply that for

sustainable development, it's crucial for policymakers to give voice to teachers and take into account their concerns, needs and expectations. Teachers know best of their own needs and can certainly identify most appropriate ways to address their needs. In this research, I asked teachers to explain their preference regarding the most effective support model for their professional growth. Below figure shows the result of their responses.



**Figure 13 - Teachers Preference (Questionnaires)**

Teachers' replies to this question (preferred TPD model) stand for the preferred among very flawed alternatives; one that is the most satisfactory and helpful for them. Teachers view TTC in-service program the most beneficial TPD model as compared with the other two models (TLC and short-term trainings). Their second preference is TLC. However, there are many challenges and issues involved each of these models that were shared by teachers during interviews, through questionnaires and what were identified through observations. For instance, the following figure provides a clearer picture of results of questionnaires; comparing the relationship of each model with teachers' day-to-day work.



**Figure 14 - Relationship to Day-to-Day Classroom Needs (Questionnaires)**

In this graph we see that TLC is rated as the most responsive approach to teachers' daily work. Most of the teachers that I interviewed explained that TLCs are the best opportunities for them to discuss their problems they face in their classrooms every day. A key reason for considering TLC closest to their daily classroom teaching and work than the other two is because it's always available (it exists inside school), provides immediate support and responds to their needs quicker than the others. Another reason is the collaborative work and collegial environment in TLCs in which all teachers work together, share their problems and support one another to become more effective teachers. In other words, it's far more accessible, comfortable and responsive than the other two which come in particular packages and in the form of one-size-fits-all. To further unpack each model in terms of its impact on teachers' knowledge of the subject matter, teaching and learning activities and assessment quality, the following figure and table indicate each model separately.

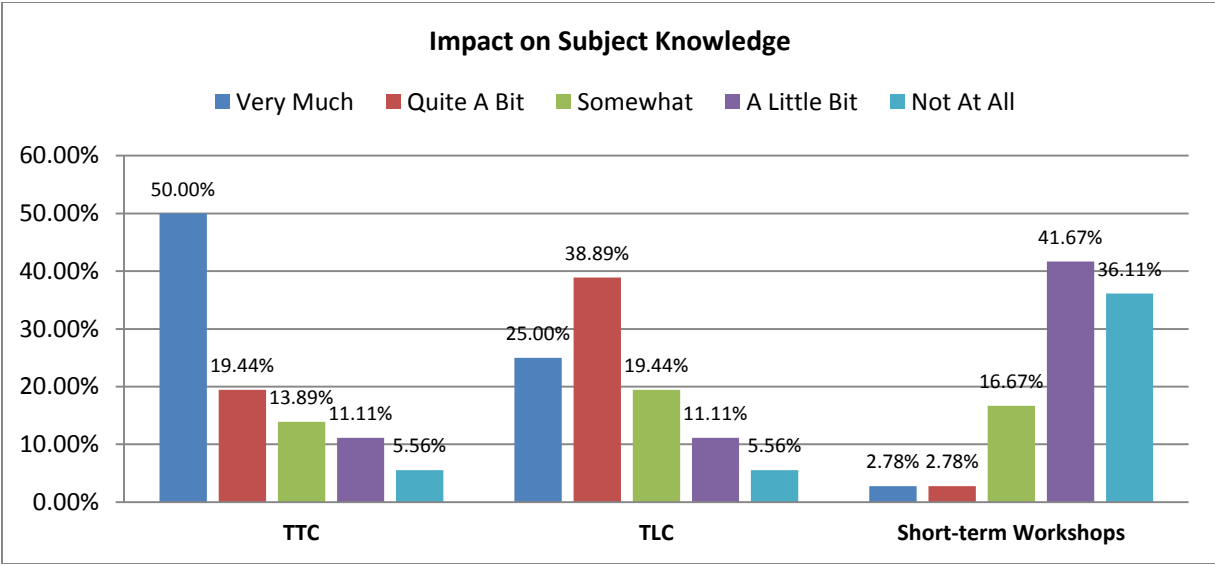


Figure 15 - Impact on Subject Knowledge (Questionnaires)

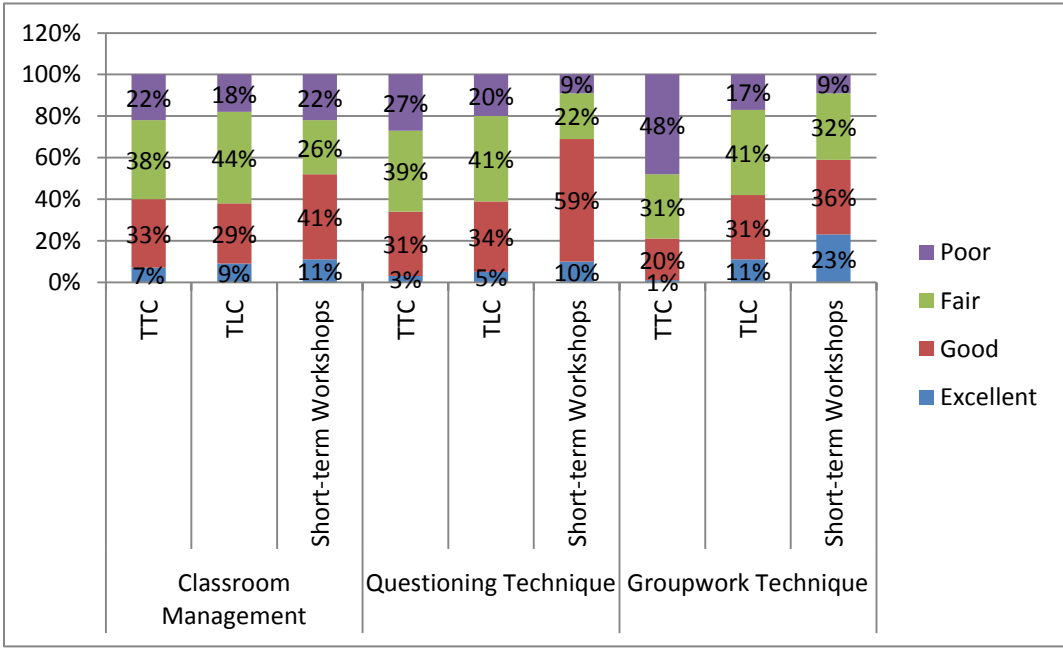
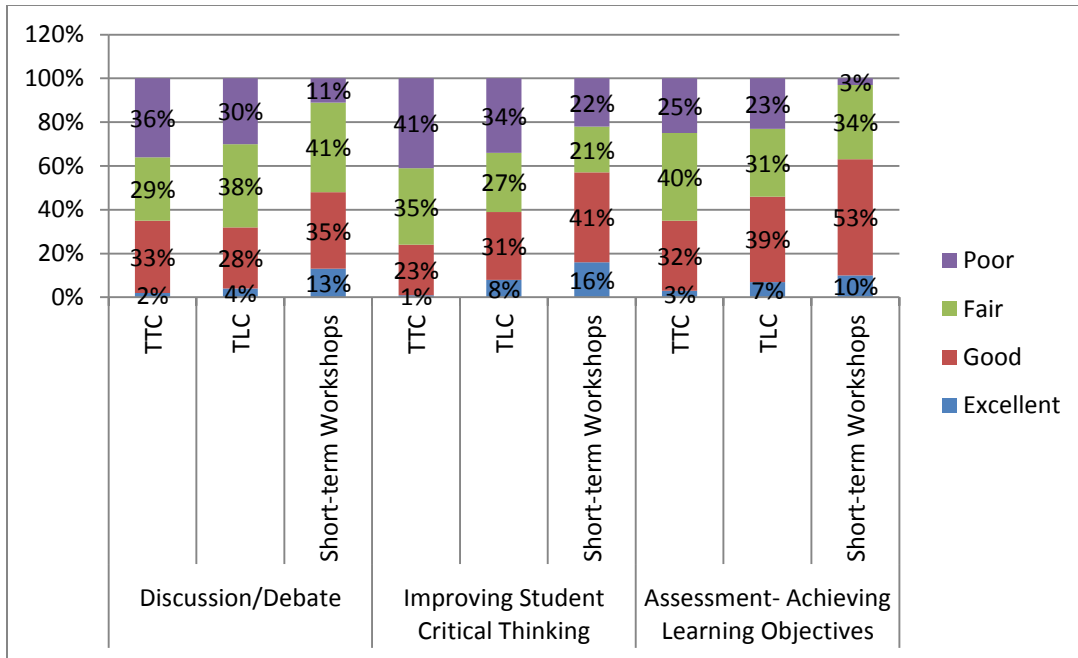
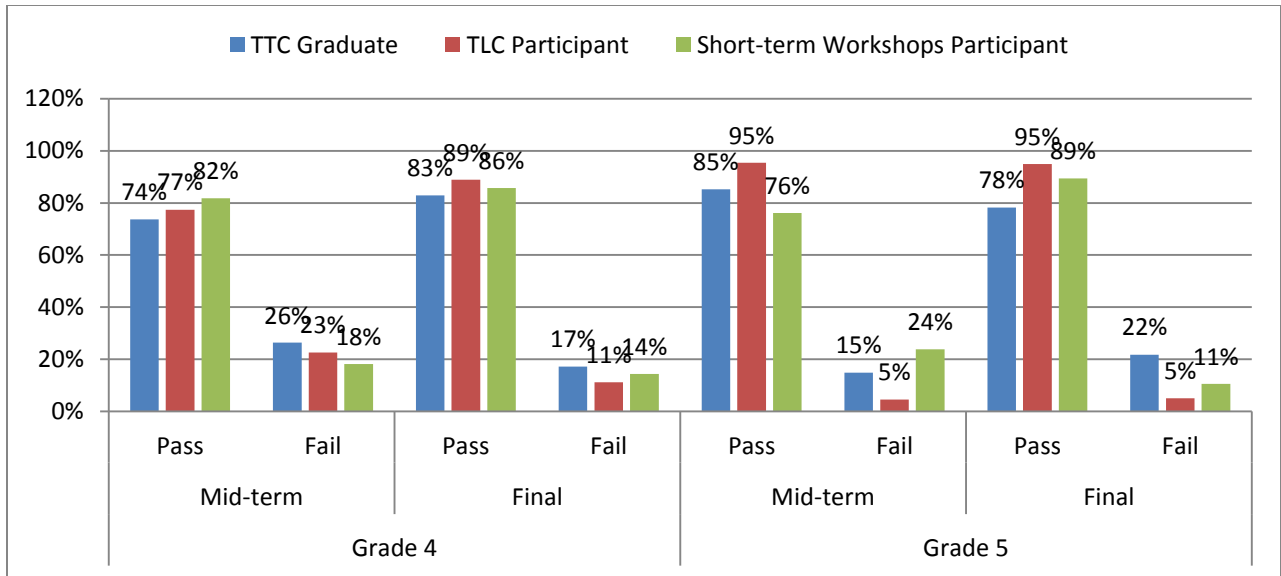


Figure 16 - Impact on Pedagogic Skills - Part I (Questionnaires)



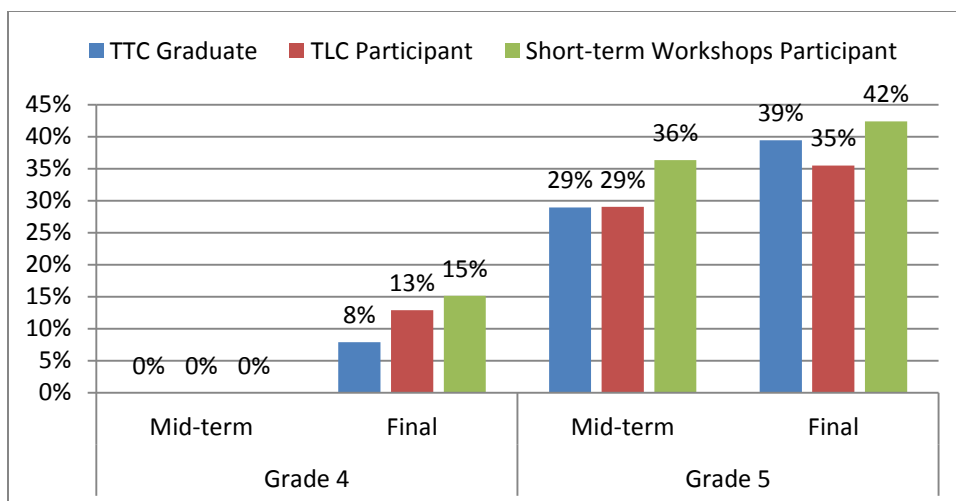
**Figure 17 - Impact on Pedagogic Skills - Part II (Questionnaires)**

As shown in the above figure 15, TTC in-service program is considered as most helpful approach for expanding teachers’ subject knowledge, while, as shown in the graphs 16 and 17, short-term trainings improve teachers’ teaching and learning activities and assessment skills more than the other two TPD models. Meanwhile, we find TLC in an average rate in both expanding subject knowledge and improving teaching and learning and assessment skills. As for each model’s impact on students’ performance, the following figure describes each one’s separately using the data collected from document review of three different groups of students – from three teachers representing the three TPD models.



**Figure 18 - Student Performance (Pass and Fail) along 4 Semesters (Student Document Review)**

According to the results shown in this graph, there is a consistent increase in the number of students, of TLC participant teacher, who perform outstanding and achieve higher grades (pass in) tests along four semesters. TTC graduate teacher's students, with a little difference, follow the same pattern; that is they improve their learning outcome. However, the short-term training participant teacher's students have their fluctuation in having better outcome along four semesters.



**Figure 19 - Student Drop-out within 4 Semesters (Student Document Review)**

Although student drop out could be due to various factors, teacher performance and attitude could be factor. The above figure shows students drop-out rate for each of the three TPD approaches – teachers that participated in each of the three TPD opportunities. Having said that, there is not standardized tests, evaluation and or any mechanism established in the education system to enable researchers use students’ outcome or retention as indicators for teacher evaluation. In other words, this is a limitation for all researchers in the context of Afghanistan.

Through these analyses, I inferred that each of the three TPD models somehow contributes to teacher improvement. Each has its advantages and challenges. For instance, TTC in-service program expands teachers’ subject knowledge extensively while short-term trainings, if well-designed and efficiently delivered for targeted groups of teachers, greatly improve teaching and learning, assessment, and classroom management skills of teachers. Meanwhile, TLCs serve as the most efficient opportunity for teachers to address their day-to-day classroom needs inside their school setting, in continuously manner.

We also learned that there are many challenges involved with each of the above approaches such as TTC in-service program lacks close connection with teachers’ day-to-day

work, individual needs, and meeting their different school and contextual requirements. TTC in-service program also lacks follow-up on teacher activities, as well as adequate practicum assigned for in-service TTC students in the curriculum. Short-term trainings are mostly designed and applied based on a top-down approach without conducting needs assessments to learn about teachers' needs beforehand. They also lack quality implementation, follow-up and are provided as packages (on-size-fits-all) for all teachers without taking into account their individual needs. TLCs, on the other hand, suffer from lack of supervision ensured by school administration and or local education administration officials in timely manner. They are also not evaluated to see how they work and whether or not they need support to better perform. TLCs are not embedded in teachers' job and schools' structure and, thus, teachers have no incentive, impetus and sense of responsibility to participate in TLC activities. In fact, the whole education system lacks proper evaluation system for teacher performance (Ministry of Education, 2008).

The findings indicate that each of these TPD models have their advantages. It shows that the TTC provides general education for under-qualified practicing teacher. TTC (2-year in-service program) improves teachers' subject knowledge (research question 1: *Which of these three professional development approaches and their materials result in actual beneficial, or intended, changes in teacher subject knowledge?*).

Short-term trainings, if they are designed for specific groups of teachers and for addressing their specific problems, improve teachers' pedagogical skills (research question 2: *To what extent do any of these TPD models improve teachers' pedagogical practice?*).

There are many factors that influence student performance. Teacher quality is among the most critical factors that shape student outcome. It is noteworthy that Afghanistan MOE lacks standardized testing (except for the Kankor exam); on the other hand, there is no mechanisms

established in place to relate student outcome with teacher performance. In this research, I used student test results in the last four semesters (document review) and interviewing teachers and head-teachers to find out about the students' performance as a result of teacher participation in TPD. Although being a limitation, it is by far I could manage during the time-length of my research project. The results showed that teachers that participated in TLCs actively and reviewed, discussed and work together with their colleagues had higher performing students than the TTC and short-term trainings (research question 3: *How can we determine that teachers' participation in any of these three professional development opportunities results in improved student learning?*).

The results also implied that there are various aspects of each of these three TPD models that are beneficial for supporting teachers. If these aspects are combined together, teachers will have ongoing effective support inside their schools. These include TTC in-service programs general education (most importantly, subject matter), short-term training pedagogical skills, and TLC collaborative work environment (ongoing school-based TPD) through which teachers can address their day-to-day classroom needs (research question 4: *After comparing the three TPD models, what parts of each can be adapted and or combined to create a feasible and sustainable professional development model in the context of Afghanistan?*).

In the following section, based on the findings of this research, I recommend some specific strategies that the teacher education policymakers in the MOE (TED) and its national and international partners can ponder on to develop a TPD model that efficiently address individual teacher's professional, day-to-day, needs in the long run.

## CHAPTER 6: RECOMMENDATIONS AND CONCLUSION

### 6.1 RECOMMENDATIONS

Today, regardless of teachers' experience and educational levels, TPD programs are considered as necessary for all teachers. Vescio et al. (2007) articulate that clearly focused and continuous professional development significantly impact teacher performance and student outcome. From a practical perspective, TPD is viewed as an integral part of teachers' work (Mouzakis et al., 2012). In the case of Afghanistan, the need for improving teacher quality has been a dilemma for the MoE as teachers have different levels of qualification and needs. As the Ministry of Education state in the national strategic plan, "There are multiple factors contributing to low quality in the system. Critical ones include the lack of teachers with thorough content-based knowledge; poor teaching methods; the lack of safe, conducive learning spaces; and the lack of quality teaching and learning materials (including textbooks)" (2007, p. 13 & 31).

Since 2001, the demand for effective and qualified teachers in the country has consistently increased due to population growth, high (average 50) student-teacher ratio (Ministry of Education, 2011, p. 35), student enrolment (Islamic Republic of Afghanistan, 2005, p. 13) as well as teacher attrition rates. Teachers in rural and semi-urban areas do not have access to TTCs since all these institutions are based in either provincial or district capital cities.

Teachers, as practitioners, work with people (students, colleagues, school staff, and communities) in complex environments, have different professional needs and require continuous support to address their individual routine problems. Each teacher could have a particular set of needs that would be different than his or her colleagues' needs. TTC in-service program and ad-hoc short-term trainings come in specific packages in the form of one-size-fits-all. They lack follow-up activities, support (beyond training) and evaluation that targets

individual teachers. On the other hand, the TLC model is not embedded in the structure of school and teacher education system. They (TLCs) are not provided with efficient support, supervision and evaluation either. In many school settings there are various dynamics that prevent TLCs from working productively for teacher improvement purposes. In this section, I recommend a TPD model that connects all three TPD approaches and, thus, borrows various beneficial aspects of each of the three models discussed in this paper. I call it blended learning and professional development (BLPD) model that emphasizes on-going school-based TPD; a model that ensures contextualized and continuous teacher support most likely to respond to individual teachers' professional needs.

Researches on teacher professional development in other countries, in contexts similar to Afghanistan, support the school-based on-going professional development, such as African countries, Primary Education Improvement Project in Botswana, BRAC's experience in Bangladesh, etc. (Craig, 1998). As Smith asserts, "... all teachers need different types of knowledge at different times, via different approaches and activities, and about different contents" (Smith, 2010, p. 71). The blended learning and professional development (BLPD) model proposed in this paper suggests a decentralized approach that aims to encourage teachers to take the lead of their own professional development. This model advocates a coherent approach by connecting TTC in-service program to TLCs while supported by short-term TPD trainings sporadically. The BLPD model emphasizes the notion of participatory conceptualization of TPD by engaging teachers in assessing their professional needs – through reflection – and by giving them voice and agency. This model asserts that all TPD and teacher education policies to be formulated through engaging teachers in the whole process – using backwards mapping (bottom-up) approach rather than forward mapping (top-down).

The BLPD approach is essentially an alternative for the currently used traditional approaches. It combines (connects and or embeds) the three approaches together: short-term training interventions provided by the MOE and its national and international partners, TLCs and the TTC in-service program. The systems view, constructivism and complexity framework is used as a theoretical rationale for recommending the BLTP model. This framework accentuates active and engaging learning environment, while paying attention to explicit and implicit dynamics that influence this process as well as taking into account the complexity of the change process in social settings. It critiques linear change approach undertaken by the in-service program and project-based short-term TPD interventions. It also, critiques TLCs regarded as an independent approach formed in schools without paying attention to social and technical dynamics that influence its quality and effectiveness in various settings. According to the BLPD framework, learning is an active and continuous process in which learners construct new ideas or concepts based upon their current or past knowledge and experiences. It also emphasizes embedding professional developing in teachers' job and school structure. As Smith and Gillespie (2007) state, a job-embedded teacher professional learning locates training within the school, program, or local context. BLPD's focus is on developing teacher knowledge in the content area, active teaching and learning skills, educative assessment techniques, analyzing and developing student thinking (critical thinking) and engagement in learning processes, and identifying how all these could be applied to changes in instructional practices tailored to the local educational context. In practice, the BLPD model would have the following major implications.

1. To embed TLC in school routine activities and structure; part of teachers and school administration roles and responsibilities.

2. TLCs should be supported (technically) and evaluated by the TTC in-service program, on a regularly basis, rather than by the provincial or district education offices. TLCs should be embedded in the TED structure and connected with the in-service program.
3. Based on findings of teachers' self-assessment and reflection and the TTC in-service program's regular evaluation, short-term trainings to be provided to address particular needs of teachers. However, it should be made sure that these short-term training are designed for specific groups of teachers – not for all teachers. As required different short-term trainings should be provided for different groups of teachers addressing their individual/group needs.

Such a site-based TPD often focuses on the specific, situational problems that emerge from instructional processes and what teachers encounter as they try to improve student learning and or implement new techniques. There are various benefits MOE could expect from this model. Some include contextualized teacher change approach, addressing systemic dynamics that influence teacher change, ongoing teacher support, individualized perspective for teacher quality development, coherency of teacher education and teacher support among all teacher support mechanisms within MOE (TED) structure, responsiveness to all teacher needs, feasibility and cost-effectiveness. It creates increased opportunities for teachers to interact, reflect and work collaboratively. This approach increases teachers engagement in learning, help them take the lead of their own professional development, ensures an on-going learning opportunity and enhances teachers' access to learning opportunities within and outside their schools. It also provides greater flexibility of resources (such as time), expands subject knowledge, enriches pedagogic knowledge and skills, improves teacher daily work performance, and increases student outcome.

To ensure effectiveness of this model, it is recommended to provide short-term trainings with focus on specific needs (groups) of teachers. Sequence and, along with it, feedback is essential for quality TPD. Accountability is another important aspect to provide continuous and successful support for teachers. For the short-term trainings, the provider (MOE or International/National organizations) can include assignment for teachers which should require teachers to practice the knowledge or skills they learn from training in their classroom, presentation of challenges and experiences to their colleagues in the TLC and conduct formative peer-observation. The BLPD model considers teachers accountable for student progress and their performance. Teachers can discuss student problems and performance in TLCs. For instance, teachers can discuss students' performance in a specific test, focusing on *why some students were confused and, thus, couldn't answer specific questions correctly*- conducting *error analysis*. Such error analysis activities tend to require special attention. A key requirement for doing error analysis is having real work of students on the table to explore and discuss. However, it doesn't have to be standardized test results. For more specific instance, the team can review five content themes by asking each other- when looking at students' work:

1. Why students made errors? – *make hypotheses*.
2. How to find out what hypothesis is true? – *select the best or most likely hypothesis*.
3. What different strategies to use to address the problem? – *design a reteach based on hypothesis*.
4. How to include the reteach plan in classroom sessions? – *select a strategy to implement immediately (including any logical issues involving switching students, etc.)*.
5. How can the TLC (team) help? How can others benefit from the knowledge? – *set up a follow-up or check-in time*.

In short, BLPD model emphasizes teachers' direct accountability and active participation in all PD activities. This model (BLPD) addresses all four research questions. It responds to teacher subject knowledge and pedagogical practices by linking TTC in-service program with TLC and providing teachers with short-term trainings. It links TPD with student performance by making teachers accountable for their students' outcome. As it happens inside school and in an ongoing basis, as well as teachers participate actively and with direct accountability, the BLPD model will most likely be the most effective approach to improve teacher quality in the context of Afghanistan. This model also supports the theoretical framework that I used in this research; that is TPD happens in dynamic settings and that there are various dynamics which influence teacher performance, teacher change and their impact on student outcome. Only a PD model that takes into account all aspects of teaching and learning environment, organizational role and responsibility, contextualized change approach, active participation, accountability, feedback loop, continuous assessment, linking teaching with student performance, etc. will work best. The BLPD model looks at the whole system (context) in which teachers, as a small unit within the system, work and live.

## 6.2 IMPLICATIONS

Education, including teacher education, is a strongly centralized system in the country. For almost all activities, MOE – and the TED – dominates the scene. Bringing change and reforming the system is greatly sensitive and challenging. Structurally, there are power and control issues on one hand and lack of resources and capacities to manage reforms effectively on the other. As for addressing the challenges involved in the TPD approaches individually, the MOE has always been under influence of its national and international partners as well as internal bureaucracy and, thus, failed to address those concerns and challenges efficiently so far. Teacher education policies are all formulated based on forward-mapping approach and based on minimal data collected from the field.

The utmost issue regarding teacher support, upgrading and quality improvement in the country seems to be the MOE's situational reaction to teachers' needs. The number of TTCs in provincial and district levels increased tremendously and, according to the MOE strategic plan, the MOE plans to further increase the number of TTCs in the next few years. The underlying assumption is that a large number of teachers lack the required minimum grade fourteen qualifications. This is a huge investment for a low-resource country like Afghanistan. However, there's no clear answer for this simple question: what the MOE will do with these TTCs after this large number of teachers are upgraded? Most importantly, there's no robust data showing the effectiveness of TTC in-service program on teachers' quality and students' achievements.

Millions of dollars are invested to improve teachers' performance through short-term trainings. These project-based interventions lack coherence and coordination on one hand and, similar to the TTC in-service program, there's no research findings that support effectiveness of these short-term interventions on the other. It's noteworthy that almost all these TPD projects are

designed based on conceptualized and assumed solution for teachers' needs and are applied without following up on the activities, measuring the outcome and examining the impacts. Unlike the TTC in-service program and short-term trainings that come in pre-determined packages, based on a one-size-fits-all assumption, TLC initially seemed promising. However, TLCs were not embedded in the school and or TED structure and teachers were not provided with motivation, incentive and support to participate in these school-based professional development opportunities. TLCs are neither supervised nor evaluated. As a result, in a lot of schools TLCs stopped functioning.

To address all these challenges as well as those that are identified in the findings section of this paper, MOE is required to bring about reforms in the structure, process and policymaking approach of teacher education in the country. In the recommendations section, I suggested an example alternative for addressing these challenges. However, the BLPD model is not implemented yet. Therefore, it is essential to pilot this model before applying it across the country. There are certainly administration, management, financial, resources, capacity, structural and policy implications involved in applying the BLPD approach. Other implications include promoting collective learning, collaborative work, collegiality, deprivatization of practice (Stoll, 2010)<sup>3</sup>, interdependence, reflective dialog and reflective professional inquiry among teachers. I do not intend to go into a detailed analysis and description of these implications as they are beyond the scope and purpose of this research paper.

I conducted this research in one province, targeted a few sample school teachers in three districts. Thus, it's not representative of all teachers and schools across the country. This study is intended for *learning* and explores effectiveness of three widely used teacher support models.

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<sup>3</sup> Opening up one's practice to the scrutiny of others.

Considering these limitations, a key implication is conducting further studies on this topic in different parts of the country to verify the findings of this research.

It is noteworthy that, due to lack of data insufficiency, I could not fully address the third research question (student performance as a result of teacher participation in PD activities) other than measuring their test results. It is very hard to correlate student outcome with teacher performance in the context of Afghanistan. Being conflict environment, it adds to complexity of conducting such researches in the country for any researchers. This is because the education system lacks standardized testing – except of Kankor exam - and mechanisms that assess teacher performance with relation to student achievements. I could only use the student test results along four semesters (two academic years) and anecdotal data from interviews with teachers.

### **6.3 CONCLUSION**

This research highlights that professional development opportunities are important for improving teacher quality and can impact student performance. It also highlights some of the benefits as well as challenges and issues that hinder each of the three TPD approaches discussed in this research paper to help teachers become better practitioners. The findings of this research critique the top-down, non-contextualized and one-size-fits-all approach of the 2-year in-service program and the short-term trainings. It also critiques the inefficiency of TLCs as not being supervised, evaluated, supported and embedded in the structure of school and teacher education system. However, I could infer from the findings that TPD is most effective if it is continuous (long-term), school-based, collaborative among teachers, focused on teachers' daily work (classroom problems and students' performance) and is linked to school curricula (what teachers teach every day in classrooms) (Owston et al., 2008; Cohen and Hill, 2001; Garet et al., 2001).

As learned in the literature review too, creating and applying TPD policies require systems view. Policymakers are needed to look at larger picture and take into account all units and pieces of the system that interact with and are connected and or embedded into one another. We are unable to impact teacher performance unless we pay attention to student outcome, available resources, school administration, organizational structure, culture, and politics, local environment, individual teachers' needs, curriculum, policies and all other dynamics that influence this process. We cannot conceptualize teacher change as an event it rather needs to be considered as complex system (Clarke & Collins, 2007; Opfer & Pedder, 2011). Hence, teacher change entails considering various dynamics that interact in various ways. These dynamics interact and combine differently for different people at different times and contexts. Simplistic

conceptualization and generalization of teacher change leads us to misunderstanding the nature of teacher learning and, thus, waste of resources and suffer from the problems continuously.

The findings of this research also highlight that, as Garet et al. (2001) asserted, teachers need continuous support and, most importantly, time to absorb, reflect, discuss, receive formative feedback, for instance, from colleagues and practice the new knowledge and skills. It's also highlight that TPD activities are effective when and if they are closely relevant to teachers' individual classroom needs and school curriculum, accessible for teachers at any point of time when they require (preferably school-based), continuous and intensive rather than being outside of school, brief, irrelevant, and sporadic. It's also pointed out that traditional approaches (2-year in-service and ad-hoc trainings) are less likely to lead to improving teacher effectiveness (Smith & Gillespie, 2007; Hawley & Valli, 1999). Thus, teacher professional development that involves teachers taking the lead of their own change – through working with their colleagues in TLCs (job-embedded approach - Smith & Gillespie, 2007; or communities of practice - Stoll, 2010) supported with short-term trainings with significant length of time (Guskey, 2000) and in-service teacher education technical resources (including trainer-mentors) will work most effectively.

A key recommendation of this research is the BLPD model for supporting teachers in the long run. The BLPD combines the three approaches (TLC, TTC in-service program and short-term trainings) together in a coherently manner to address individual teacher's problems. I believe that determining systems, structures, sets of activities and so on depend on understanding the various ways that these components interact with one another, context and characteristics of individual teachers. Thus, the primary implication of findings of this research and the proposed BLPD model require more research to be able to verify its accuracy and feasibility.

## REFERENCES

- Amagoh, Francis. (2008). *Perspectives on Organizational Change: Systems and Complexity Theories*. The Innovation Journal: The Public Sector Innovation Journal. Volume 13 (3). Article 3
- Anderson, J. R., Greeno, J. G., Reder, L. M., & Simon, H. E. (2000). Perspectives on learning, thinking and activity. *Educational Researcher*, 29(4), 11–13.
- Argyris, Chris. (1993). *On Organizational Change*. Blackwell Business
- Ball, D. L. (1988). *Knowledge and reasoning in mathematical pedagogy: Examining what prospective teachers bring to teacher education* (Unpublished doctoral dissertation). Michigan State University, East Lansing.
- Benathy, Bela H. (1985). *A Systems View of Institutionalizing Change in Education*. Symposium on Future Educational Delivery Systems: Technology in Education.
- Banathy, Bela H. (1992). *A Systems View of Education: Concepts and Principles of Effective Practices*. Education Technology Publication. Englewood Cliffs. New Jersey. 07632
- Bennell, Paul, & Akyeampong, Kwame. (2007). *Teacher Motivation in Sub-Saharan Africa and South Asia*. Department for International Development (DFID).
- Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher*, 33(8), 3–15.
- Borko, H., & Putnam, R. (1997). Learning to teach. In D. C. Berliner & R. C. Calfee (Eds.), *Handbook of educational psychology* (pp. 673–708). New York, NY: Macmillan.
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational Researcher*, 18(1), 32-41.
- Clarke, A., & Collins, S. (2007). Complexity science and student teacher supervision. *Teaching and Teacher Education*, 23, 160–172.
- Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education*, 18, 947–967.

- Cohen, D., & Hill, H. (2001). *Learning Policy. When State Education Reform Works*. New Haven, CT: Yale University Press.
- Craig, Helen J. (1998). *Teacher Development: Making an Impact*. USAID and World Bank
- Creswell, John W. & Clark, Vicki L. Plano. (2011). *DESIGNING AND CONDUCTING MIXED METHODS RESEARCH*. SAGE. Los Angeles, London, New Delhi, Singapore, Washington DC. 2<sup>nd</sup> Edition
- Curry, M. (2008). Critical friends group: The possibilities and limitations embedded in teacher professional communities aimed at instructional improvement and school reform. *Teachers College Record*, 110(4), (Retrieved March 1, 2008, from <http://www.tcrecord.org/content.asp?contentid=14625>).
- Darling-Hammond, L., & McLaughlin, M. W. (1995). *Policies that support professional development in an era of reform*. *Phi Delta Kappan*, 76(8), 597–604.
- Desimone, Laura M. Smith, Thomas M. & Ueno, Koji. (2006). *Are Teachers Who Need Sustained, Content-Focused Professional Development Getting It? An Administrator's Dilemma*. *Educational Administration Quarterly* Vol. 42, No. 2. 179-215
- Dunne, F., Nave, B., & Lewis, A. (2000). Critical friends: Teachers helping to improve student learning. *Phi Delta Kappa International Research Bulletin*, 28, 9-12.
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (1995). *Writing ethnographic fieldnotes*. Chicago: University of Chicago Press.
- Fink, L. Dee. (2005). *Integrated Course Design*. IDEA PAPER #42, University of Oklahoma. Retrieved on March 30, 2013 from: [http://www.theideacenter.org/sites/default/files/Idea\\_Paper\\_42.pdf](http://www.theideacenter.org/sites/default/files/Idea_Paper_42.pdf)
- Firestone, William A. Mangin, Melinda M. Martinez, M. Cecilia & Polovsky, Terrie. (2005). *Leading Coherent Professional Development: A Comparison of Three Districts*. *Educational Administration Quarterly*, 41(3), 413-448.
- Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915-945

- Greeno, J. G., Collins, A. M., & Resnick, L. (1996). Cognition and learning. In D. C. Berliner & R. C. Calfee (Eds.), *Handbook of educational psychology* (pp. 15–46). New York, NY: Simon & Schuster Macmillan.
- Guillemin, M., & Gillam, L. (2004). Ethics, reflexivity, and "ethically important moments" in research. *Qualitative Inquiry*, *10*(2), 261-280.
- Guskey, T. R. (2000). *Evaluating professional development*. Thousand Oaks, CA: Corwin Press.
- Guskey, T. R. (2002). Professional development and teacher change. *Teachers and Teaching*, *8*, 381–391.
- Hanushek, E. A. (2005). *Economic outcomes and school quality: Education policy series*. Paris, France: International Institute for Educational Planning and International Academy of Education.
- Hawley, W. D., & Valli, L. (1999). *The essentials of effective professional development: A new consensus*. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the learning profession: Handbook of policy and practice* (pp. 127–150). San Francisco: Jossey-Bass.
- Hollingsworth, Hilary. (1996). *Change Trajectories in Teacher Professional Growth*. University of Melbourne
- Hollingsworth, H. (1999). *Teacher professional growth: A study of primary teachers involved in mathematics professional development* (Unpublished doctoral thesis). Deakin University, Burwood, Australia.
- Hord, Shirley M. (1997). Professional learning communities: What are they and why are they important? *Southwest Educational Development Laboratory*, *6*(8).
- Hord, S. M. (1997 b). *Professional Learning Communities: Communities of Continuous Inquiry and Improvement*. Southwest Educational Development Laboratory, Texas, USA.
- Hirsh, S. (2009). A new definition. *Journal of Staff Development*, *30*(4), 10–16.

- Human Rights Watch. (2006). *Lessons in Terror: Attacks on Education in Afghanistan*. Vol 18(6). Retrieved on March 21, 2013, from:  
<http://www.hrw.org/reports/2006/afghanistan0706/6.htm>
- Ingersoll, Richard & Kralik, Jeffrey M. (2004). *The Impact of Mentoring on Teacher Retention: What the Research Says*. Education Commission of the States
- Islamic Republic of Afghanistan. (2005). Country Report. *Millennium Development Goals*.
- Jalongo, M.R. (1991). *Creating learning communities: The role of the teacher in the twenty-first century*. Bloomington, IN: National Educational Service.
- Johnson, Daniel R. (2011). A Quantitative Study of Teacher Perceptions of Professional Learning Communities Context, Process, and Content. Seton Hall University, Dissertations, Paper 15.
- Lave, J., & Wenger E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
- Little, J. W. (2003). Inside teacher Community: Representations of classroom practice. *Teachers College Record*, 205(6), 913-945.
- Louis, KS. & Kruse, S.D. (1995). *Professionalism and community: Perspectives on reforming urban schools*. Thousand Oaks, California: Corwin Press.
- Malen, Betty & Knapp, Michael. (1997). *Rethinking the multiple perspectives approach to education policy analysis: Implications for policy and practice connections*. University of Washington, Seattle. Vol. (12). No. (5)
- McLoughlin, M., & Talbert, J. (2001). *Professional communities and the work of high school teaching*. Chicago: University of Chicago Press.
- McNamara, Carter . (2006). *Field Guide to Consulting and Organizational Development: A Collaborative and Systems Approach to Performance, Change and Learning*. Authenticity Consulting

- Menon, Geeta. (2008). *Active-Learning Pedagogies: Policy, Professional Development and Classroom Practices*. A case study of two post-conflict contexts: Afghanistan and Somaliland - Case Study 1: Afghanistan. CARE International
- Ministry of Education. (2006). *National Education Strategic Plan*. Islamic Republic of Afghanistan
- Ministry of Education. (2007). National Education Strategic Plan for Afghanistan: 1385-1389. Islamic Republic of Afghanistan. Retrieved on March 30, 2013 from: [http://www.iiep.unesco.org/fileadmin/user\\_upload/News\\_And\\_Events/pdf/2010/Afghanistan\\_NESP.pdf](http://www.iiep.unesco.org/fileadmin/user_upload/News_And_Events/pdf/2010/Afghanistan_NESP.pdf)
- Ministry of Education. (2008a). In-school teacher support activities (ITSA) Manual. Building Education Support Systems for Teachers, Afghanistan.
- Ministry of Education. (2008b). National Report on the Situation of Adult Learning and Education: Afghanistan. Islamic Republic of Afghanistan. Retrieved on March 30, 2013 from: [http://www.unesco.org/fileadmin/MULTIMEDIA/INSTITUTES/UII/confintea/pdf/National\\_Reports/Asia%20-%20Pacific/Afghanistan.pdf](http://www.unesco.org/fileadmin/MULTIMEDIA/INSTITUTES/UII/confintea/pdf/National_Reports/Asia%20-%20Pacific/Afghanistan.pdf)
- Ministry of Education. (2010). Our Key Challenges. Retrieved on March 30, 2013 from: <http://moe.gov.af/en/page/2020>
- Ministry of Education. (2011). *Annual Progress Report*. General Planning and Evaluation Department. EMIS Directorate
- Ministry of Education. (2011). National Education Interim Plan: 2011-13. Islamic Republic of Afghanistan. Retrieved on March 30, 2013 from: [http://planipolis.iiep.unesco.org/upload/Afghanistan/Afghanistan\\_NEIP.pdf](http://planipolis.iiep.unesco.org/upload/Afghanistan/Afghanistan_NEIP.pdf)
- Mouzakis, Charalambos, Tsaknakis, Haralampos & Tziortzioti, Chrysanthi. (2012). *Theoretical Rationale for Designing a Blended Learning Teachers' Professional Development Program*. University of Crete, Greece, (14). Retrieved on March 16, 2013, from: <http://www.irma-international.org/viewtitle/65204/>
- National Staff Development Council. (2010). NSDC's definition of professional development [Website]. Retrieved March 17, 2010, from <http://nsdc.org/standfor/definition.cfm>
- Opfer, V. Darleen, & Pedder, David. (2011). Conceptualizing Teacher Professional Learning. *Review of Educational Research*, 81(3), 376-407.

- Owston, Ron, Wideman, Herb, Murphy, Janet, & Lupshenyuk, Denys. (2008). *Blended Teacher Professional Development: A Synthesis of Three Programs Evaluations*. Institute for Research on Learning Technology. Toronto, Canada: York University.
- Pedder, D. (2006). Organizational conditions that foster successful classroom promotion of learning how to learn. *Research Papers in Education*, 21, 171–200.
- Putnam, R. Y., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teaching? *Educational Researcher*, 29(1), 4–15.
- Raths, J. (2001). Teachers’ beliefs and teaching beliefs. *Early Childhood Research & Practice*, 3(1). Retrieved from <http://ecrp.uiuc.edu/v3n1/raths.html>
- Reeler, Doug. (2007). A Theory of Social Change and Implications for Practice, Planning, Monitoring and Evaluation. Community Development Resource Association (CDRA).
- Reger, Jo. (2001). Emotions, Objectivity and Voice: An Analysis of a “Failed” Participant Observation. *Oakland University, USA*, 24(5), 605-616.
- Richardson, V. (2003). Preservice teachers’ beliefs. In J. Raths, & A. C. McAninch (Eds.), *Teacher beliefs and classroom performance: The impact of teacher education, volume 6: Advances in teacher education* (pp. 1–22). Greenwich, CT: Information Age.
- Rossmann, Gretchen B., & Rallis, Sharon F. (2012). *Learning in the Field: An Introduction to Qualitative Research* (3rd ed.). Los Angeles, London, New Delhi, Singapore, Washington DC: Sage.
- Shah, Sayed Muhammad. (2010). *IS CAPACITY BEING BUILT? A Study of Policymaking Process in the Primary and Secondary Education Subsector*. Afghanistan Research and Evaluation Unit (AREU)
- Sirima, Lornah C. Nakera & Poipoi, Moses Wesang’ula. (2010). *Perceived factors influencing public secondary school teachers’ job satisfaction in Busia district, Kenya*. Masinde Muliro University of Science and Technology, Kakamega, Kenya.
- Sigsgaard, Morten. (2009). *Education and Fragility in Afghanistan: A Situational Analysis*

- Smith, Cristine. (2010). *The Great Dilemma of Improving Teacher Quality in Adult Learning and Literacy*. University of Massachusetts. *Adult Basic Education and Literacy Journal*, 4(2)
- Smith, Cristine & Gillespie, Marilyn. (2007). Research on Professional Development and Teacher Change: *Implications for Adult Basic Education*
- Smith, Cristine., Hofer, Judy., Gillespie, Marilyn., Solomon, Marla., & Karen, Rowe. (2003). How Teachers Change: *A Study of Professional Development in Adult Education*. NCSALL Reports #25. Harvard Graduate School of Education
- Spink, Jeaniene., Karyar, Nazar Mohd., & Atmar, Zuhail. (2004). *SITUATIONAL ANALYSIS - Teacher Education and Professional Development in Afghanistan*. Afghanistan Teacher Education Project (ATEP). Afghanistan Research and Evaluation Unit (AREU)
- Spuhler, Lee & Zetler, Alan. (1995). Montana Beginning Teacher Support Program: Final Report. Montana State Board of Education, Helena.
- Stoll, L. (2010). Professional Learning Community. University of London, London, UK
- Sykes, G. (1996). Reform of and as professional development. *Phi Delta Kappan*, 77, 465–489.
- Tatto, Maria Teresa., Nielsen, Dean & Cummings, William. (1991). Comparing the Effects and Costs of Different Approaches for Educating Primary School Teachers: The Case of Sri Lanka. *Bridges Research Report Series*, (10).
- Teddlie, C., & Yu, F. (2007). Mixed Methods Sampling : A Typology With Examples. *Journal of Mixed Methods Research*, 1(1), 77-100, SAGE Publishers.
- Timperley, H., & Alton-Lee, A. (2008). Reframing teacher professional learning: An alternative policy approach to strengthening valued outcomes for diverse learners. *Review of Research in Education*, 32, 328–369.
- UNESCO Institute for Statistics. (2006). *Teachers and educational quality: Monitoring global needs for 2015*. Montreal: Author.

- USAID. (xxxx). *First Principle: Designing Effective Education Programs for In-service Teacher Professional Development*. EQUIP1, USAID. Retrieved on March 17, 2013, from: [http://www.equip123.net/docs/E1-FP\\_In-Svc\\_TPD\\_Compndium.pdf](http://www.equip123.net/docs/E1-FP_In-Svc_TPD_Compndium.pdf)
- Vescio, Vicki, Ross, Dorene & Adams, Alyson. (2007). *A review of research on the impact of professional learning communities on teaching practice and student learning*. School of Teaching and Learning, University of Florida, USA
- Wignall, R. (1992). *Building a collaborative school culture: A case study of one woman in the principalship*. Paper presented at the European Conference on Educational Research, Enschede, The Netherlands.
- Wayne, A. J., Yoon, K. S., Zhu, P., Cronen, S., & Garet, M. S. (2008). Experimenting with teacher professional development: Motives and methods. *Educational Researcher*, 37(8), 469–479.
- Wheatley, K. F. (2002). The potential benefits of teacher efficacy doubts for educational reform. *Teaching and Teacher Education*, 18, 5–22.
- Wenger, E. (2006) *Communities of practice, a brief introduction*, Retrieved on May 07, 2012 from: <http://www.ewenger.com/theory/index.htm>

APPENDICES



A. Informed Consent

Date: May 2012

My name is Noorullah Noori. I am a researcher from the Education Policy, Leadership and Administration program at the University of Massachusetts, Amherst, U.S.A. My research focuses on Teacher Professional Development: A Comparative Research on Effectiveness of Teacher Support Approaches in Afghanistan.

I am interested to use questionnaires as well as interview teachers who are currently teaching and those who left teaching profession. I will conduct the study with those that are willing to participate in a semi-structured interview. The interview should last approximately an hour. This study will conduct in 30 primary and 30 secondary schools in Baghlan province, Afghanistan.

- The information shared during these sessions will be kept confidential.
• Every effort will be made to maintain the anonymity of the participants. The school where you work will not be identified by name; details that might make it easy to identify it will be changed. In addition I will use pseudonyms to refer to all participants, and characteristics that could be used to identify you will be altered.
• The interviews will be audio-taped; I will transcribe the interviews and you will be given an opportunity to review the transcripts.
• Summary of the results of the study will be available upon request. Your participation in this project is completely voluntary, and you are free to discontinue or refuse participation at any time. You have the right to review the materials connected with your interview.

If you have any questions about my research or your participation in it, you are encouraged to contact me: nnoori@educ.umass.edu, USA Cell-phone 01-413-362-4329; Afghanistan Cell phone: 0093 700 709 123.

Thank you for your time and your willingness to participate.

Noorullah Noori

You have been given two copies of this informed consent. If you agree to participate, both should be signed. You may keep one copy for your records; I will keep the other copy on file. Your signature indicates that you:

- Have read and understand the information provided.
• Willingly agree to participate in the study.
• Understand that you may withdraw from participation in the study at any time.

Name: \_\_\_\_\_

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Signature: \_\_\_\_\_

## B. Teacher Observation Form

The purpose of this observation is to assess the impact either one of the three teacher professional development systems in Baghlan province, Afghanistan. These three models are: 2 year in-service teacher education program, teacher learning circle (an ongoing school-based teacher professional development model) and short-term project-based teacher training programs. This observation focuses on only six key areas which include: I) Demographic Information, II) Preparation, III) Classroom Environment and Management, IV) Teaching/Learning Activities, and V) Measuring Student Learning, and VI) Teaching Materials and Aids.

### SECTION I: Demographic Information

School/Institution: ..... Department: ..... Subject: .....

Grade: ..... District: ..... Province: ..... Date: / /

Sex: Female  Male

Experience: 2 years or less  4 years or less, but more than 2  8 years or less, but more than 4  more than 8

Qualifications: Grade 12  2 Year Diploma (TTC)  4 Year BA  Master Degree

In which of the following professional development activities have you participated:

Teacher Learning Circles

Short-term Courses

TTC (2 Year) In-service Program

### SECTION II – Preparation

#### 1. The teacher has a lesson plan?

Yes  No

**If yes, how does the plan describe lesson objective/s, activities and evaluation methods and techniques.**

Unclear  Somewhat Clear  Quite Clear  Very Clear

### SECTION III – Classroom Environment and Management

#### 1. How is the classroom environment prepared for the lesson? i.e. space, light, heat, ventilation, and facilities.

Poor  Fair  Good  Excellent

#### 2. How would you rate teacher's classroom management?

Poor  Fair  Good  Excellent

### SECTION IV – Teaching/Learning Activities

#### 1. Did the teacher provide instructions before each activity?

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

- 2. Learning outcomes emphasized before, during and at the end of activities?**  
 Not at all  A little bit  Somewhat  Quite a Bit  Very Much
- 3. How did the teaching/learning activities help achieving the lesson objectives?**  
 Not at all  A little bit  Somewhat  Quite a Bit  Very Much
- 4. Did the teacher use questioning technique?**  
 Yes  No   
**If yes, how would you rate it?**  
 Poor  Fair  Good  Excellent
- 5. Did the teacher use groupwork technique?**  
 Yes  No   
**If yes, how would you rate it?**  
 Poor  Fair  Good  Excellent
- 6. Did the teacher use skits technique?**  
 Yes  No   
**If yes, how would you rate it?**  
 Poor  Fair  Good  Excellent
- 7. Did the teacher use discussion/debate technique?**  
 Yes  No   
**If yes, how would you rate it?**  
 Poor  Fair  Good  Excellent
- 8. Did the teacher encourage students' creativity and critical thinking skills?**  
 Yes  No   
**If yes, how would you rate it?**  
 Poor  Fair  Good  Excellent
- 9. Overall, how would you rate the teaching/learning activities used during the session?**  
 Poor  Fair  Good  Excellent

## SECTION V – Measuring Student Learning

- 1. How would you rate teacher's pre-session evaluation? i.e. if used intuitive exercise.**  
 Poor  Fair  Good  Excellent
- 2. Through evaluation during and at the end of the session, did teacher ensure activities and students achieve lesson objectives?**  
 Not at all  A little bit  Somewhat  Quite a Bit  Very Much
- 3. Overall, how would you rate student evaluation techniques and quality used in the session?**  
 Useless  A Little Useful  Somewhat Useful  Quite Useful  Very Useful
- 4. How did the teacher conclude his/her lesson? i.e. previous lesson reviewed and connected with current, key concepts/points of the current lesson explained.**  
 Poor  Fair  Good  Excellent

## SECTION VI – Teaching Materials and Aids

**1. How did the teacher ensure that all students have their textbooks, notebooks, pens, etc.?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**2. How about other facilities prepared for the session? i.e. board, chalk, posters, etc.?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**3. Did the teacher use teaching aids during his/her lesson?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

### C. Questionnaire for Short-term Training Workshops

The purpose of this questionnaire is to assess the impact of the short-term, ad-hoc, teacher training interventions (i.e. project training workshops) in Baghlan province, Afghanistan. We would like to know your opinion about the changes in your teaching practice as a result of attending short-term teacher professional development training workshops (e.g. AKF education program, BESST, etc.).

#### INSTRUCTION

Only the teachers who have attended such training programs should complete this questionnaire. This questionnaire helps you reflect on your current practice, the change in your attitude, skill and knowledge as result of attending these training programs. It also helps you reflect on their effectiveness on improving your students' learning quality and achievements. This questionnaire encourages you to compare these short-term in-service training programs with your school Teacher Learning Circle and 2 year TTC in-service program. The questionnaire is anonymous and should take no longer than 30 minutes to complete. Please provide us with your honest and candid responses. The questionnaire includes two sections: I) Demographic Information, and II) Professional Development.

#### SECTION I: Demographic Information:

School/Institution: ..... Department: ..... Subject: .....

Grade: ..... District: ..... Province: ..... Date: / /

Sex: Female  Male

Experience: 2 years or less  4 years or less, but more than 2  8 years or less, but more than 4  more than 8

Qualifications: Grade 12  2 Year Diploma (TTC)  4 Year BA  Master Degree

In which of the following professional development activities have you participated:

Participation in Short-term Courses BESST

Aga Khan Foundation

Ministry of Education

#### SECTION II – Professional Development

##### 3. Please mark all the pedagogic skills that you have learned from participating in short-term courses and that improved the quality of your teaching practice.

Lecture	<input type="checkbox"/>	Active Teaching/Learning Activities	<input type="checkbox"/>
Traditional Assessment	<input type="checkbox"/>	Educative Assessment	<input type="checkbox"/>
Lesson Planning	<input type="checkbox"/>	Class Management	<input type="checkbox"/>
Student Motivation	<input type="checkbox"/>	Improving Students Creativity	<input type="checkbox"/>
Opportunity to Learn	<input type="checkbox"/>	Students Portfolio	<input type="checkbox"/>
Student Psychology	<input type="checkbox"/>	Producing/Using Teaching Aids	<input type="checkbox"/>

**4. Please mark all the skills of your students that improved as a result of the change in your teaching practice.**

Critical thinking	<input type="checkbox"/>	Groupwork	<input type="checkbox"/>
Problem Solving	<input type="checkbox"/>	Pair-work	<input type="checkbox"/>
Analysis and Presentation	<input type="checkbox"/>	Questioning	<input type="checkbox"/>
Discussion/Debate	<input type="checkbox"/>	Skit	<input type="checkbox"/>
Writing	<input type="checkbox"/>	Game	<input type="checkbox"/>
Reading	<input type="checkbox"/>	Project Assignment	<input type="checkbox"/>

**5. How often do you use from above skills in your classroom?**

Always  Frequently  Sometimes  Rarely  Never

**6. How did the short-term courses improve your knowledge related to the subject that you teach in your classroom (subject matter/knowledge)?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**7. How would you rate the relationship and responsiveness of the curricula of the short-term courses to your day-to-day needs?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**8. How would you rate these training programs, in terms of content knowledge and pedagogic/teaching skills, addressing your day-to-day needs in you classroom?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**9. How would you rate the quality and effectiveness of these courses?**

Useless  A Little Useful  Somewhat Useful  Quite Useful  Very Useful

**10. If you were to select one of the three PD models for your own PD, which one would you choose?**

TTC  TLC  Short-term Pedagogic/Subject Matter Training Workshops

**11. How much do you use from learning objectives that transcend memorization and require analysis and application of knowledge?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**12. How much do you ensure connection between the lessons you teach (learning objectives, content and activities) with your students' day-to-day and future needs?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**13. How do you assess your students' improvement as a result of you using the knowledge and skills you learned from these short-term courses?**

Participatory  Traditional  Educative  Daily Activities

**14. Did you choose yourself to participate in these courses or your participation was mandatory?**

None  Voluntary  Mandatory  Both (Mandatory and Voluntary)

## D. Questionnaire for Teacher Learning Circles

The purpose of this questionnaire is to assess the impact of the Teacher Learning Circles, as an ongoing school-based teacher professional development model, that was implemented by Building Education Support Systems for Teachers (BESS) Program in Baghlan province, Afghanistan. We would like to know your opinion about the changes in your teaching practice as a result of attending TLC meetings at your school.

### INSTRUCTION

Only the teachers who have attended TLC meetings at their schools should complete this questionnaire. This questionnaire helps you reflect on your current practice, the change in your attitude, skill and knowledge as result of attending TLC meetings (working with your colleagues at your school). It also lets you reflect on TLC effectiveness on improving your students' learning quality. It also lets you compare the TLC, as a TPD approach, with 2 year in-service program and short-term project intervention (pedagogic or subject-specific training workshops). The questionnaire is anonymous and should take no longer than 30 minutes to complete. Please provide us with your honest and candid responses. The questionnaire includes two sections: I) Demographic Information, and II) Professional Development.

### SECTION I: Demographic Information:

School/Institution: ..... Department: ..... Subject: .....  
Grade: ..... District: ..... Province: ..... Date: / /

Sex: Female  Male

Experience: 2 years or less  4 years or less, but more than 2  8 years or less, but more than 4  more than 8

Qualifications: Grade 12  2 Year Diploma (TTC)  4 Year BA  Master Degree

### SECTION II – Professional Development

**15. Please mark all the pedagogic skills that you have learned from participating in TLC activities and that improved the quality of your teaching practice.**

Lecture	<input type="checkbox"/>	Active Teaching/Learning Activities	<input type="checkbox"/>
Traditional Assessment	<input type="checkbox"/>	Educative Assessment	<input type="checkbox"/>
Lesson Planning	<input type="checkbox"/>	Class Management	<input type="checkbox"/>
Student Motivation	<input type="checkbox"/>	Improving Students Creativity	<input type="checkbox"/>
Opportunity to Learn	<input type="checkbox"/>	Students Portfolio	<input type="checkbox"/>
Student Psychology	<input type="checkbox"/>	Producing/Using Teaching Aids	<input type="checkbox"/>

**16. Please mark all the skills of your students that improved as a result of the change in your teaching practice.**

Critical thinking	<input type="checkbox"/>	Groupwork	<input type="checkbox"/>
Problem Solving	<input type="checkbox"/>	Pair-work	<input type="checkbox"/>
Analysis and Presentation	<input type="checkbox"/>	Questioning	<input type="checkbox"/>
Discussion/Debate	<input type="checkbox"/>	Skit	<input type="checkbox"/>
Writing	<input type="checkbox"/>	Game	<input type="checkbox"/>
Reading	<input type="checkbox"/>	Project Assignment	<input type="checkbox"/>

**17. How often do you use from above skills in your classroom?**

Always  Frequently  Sometimes  Rarely  Never

**18. How did the TLC activities improve your knowledge related to the subject that you teach in your classroom (subject matter/knowledge)?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**19. How would you rate the relationship and responsiveness of the curricula of the TLC activities to your day-to-day needs?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**20. How would you rate these activities, in terms of content knowledge and pedagogic/teaching skills, addressing your day-to-day needs in you classroom?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**21. How would you rate the quality and effectiveness of these activities as compared with short-term courses and 2 year TTC in-service program?**

Useless  A Little Useful  Somewhat Useful  Quite Useful  Very Useful

**22. If you were to select one of the three PD models for your own PD, which one would you choose?**

TTC  TLC  Short-term Pedagogic/Subject Matter Training Workshops

**23. How much do you use from learning objectives that transcend memorization and require analysis and application of knowledge?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**24. How much do you ensure connection between the lessons you teach (learning objectives, content and activities) with your students' day-to-day and future needs?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**25. How do you assess your students' improvement as a result of you using the knowledge and skills you learned from these short-term courses?**

Participatory  Traditional  Educative  Daily Activities

**26. Did you choose yourself to participate in these courses or your participation was mandatory?**

None  Voluntary  Mandatory  Both (Mandatory and Voluntary)

## E. Questionnaire for 2-year Teacher Training College Graduates

The purpose of this questionnaire is to assess the impact of the 2 year Teacher Training Program in Baghlan province, Afghanistan. We would like to know your opinion about the changes in your teaching practice as a result of attending TTC program of study.

### INSTRUCTION

Only the teachers who have attended TTC in-service program should complete this questionnaire. This questionnaire helps you reflect on your current practice, the change in your attitude, skill and knowledge as result of attending 2 year in-service program and its effectiveness on improving your students' learning quality. It also lets you compare the 2 year in-service program with your school Teacher Learning Circle and short-term project intervention (pedagogic or subject-specific training workshops) as the other two professional development approaches. The questionnaire is anonymous and should take no longer than 30 minutes to complete. Please provide us with your honest and candid responses.

The questionnaire includes two sections: I) Demographic Information, and II) Professional Development.

### SECTION I: Demographic Information:

School/Institution: ..... Department: ..... Subject: .....

Grade: ..... District: ..... Province: ..... Date: / /

Sex: Female  Male

Experience: 2 years or less  4 years or less, but more than 2  8 years or less, but more than 4  more than 8

Qualifications: Grade 12  2 Year Diploma (TTC)  4 Year BA  Master Degree

### SECTION II – Professional Development

**27. Please mark all the pedagogic skills that you have learned from participating in TTC in-service courses and that improved the quality of your teaching practice.**

Lecture	<input type="checkbox"/>	Active Teaching/Learning Activities	<input type="checkbox"/>
Traditional Assessment	<input type="checkbox"/>	Educative Assessment	<input type="checkbox"/>
Lesson Planning	<input type="checkbox"/>	Class Management	<input type="checkbox"/>
Student Motivation	<input type="checkbox"/>	Improving Students Creativity	<input type="checkbox"/>
Opportunity to Learn	<input type="checkbox"/>	Students Portfolio	<input type="checkbox"/>
Student Psychology	<input type="checkbox"/>	Producing/Using Teaching Aids	<input type="checkbox"/>

**28. Please mark all the skills of your students that improved as a result of the change in your teaching practice.**

Critical thinking	<input type="checkbox"/>	Groupwork	<input type="checkbox"/>
Problem Solving	<input type="checkbox"/>	Pair-work	<input type="checkbox"/>
Analysis and Presentation	<input type="checkbox"/>	Questioning	<input type="checkbox"/>
Discussion/Debate	<input type="checkbox"/>	Skit	<input type="checkbox"/>
Writing	<input type="checkbox"/>	Game	<input type="checkbox"/>
Reading	<input type="checkbox"/>	Project Assignment	<input type="checkbox"/>

**29. How often do you use from above skills in your classroom?**

Always  Frequently  Sometimes  Rarely  Never

**30. How did the short-term courses improve your knowledge related to the subject that you teach in your classroom (subject matter/knowledge)?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**31. How would you rate the relationship and responsiveness of the curricula of the TTC in-service courses to your day-to-day needs?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**32. How would you rate these training programs, in terms of content knowledge and pedagogic/teaching skills, addressing your day-to-day needs in you classroom?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**33. How would you rate the quality and effectiveness of these courses as compared with Teacher Learning Circles and short-term training courses?**

Useless  A Little Useful  Somewhat Useful  Quite Useful  Very Useful

**34. If you were to select one of the three PD models for your own PD, which one would you choose?**

TTC  TLC  Short-term Pedagogic/Subject Matter Training Workshops

**35. How much do you use from learning objectives that transcend memorization and require analysis and application of knowledge?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**36. How much do you ensure connection between the lessons you teach (learning objectives, content and activities) with your students' day-to-day and future needs?**

Not at all  A little bit  Somewhat  Quite a Bit  Very Much

**37. How do you assess your students' improvement as a result of you using the knowledge and skills you learned from these short-term courses?**

Participatory  Traditional  Educative  Daily Activities

**38. Did you choose yourself to participate in these courses or your participation was mandatory?**

None  Voluntary  Mandatory  Both (Mandatory and Voluntary)

**F. Basic Information of Teachers Observed (Using Observation Forms) - Total 30 Participants**

TTC Graduate Participants

Location				Gender			Qualifications				
Urban	Semi-Urban	Rural	Total	Male	Female	Total	Less Than 2 Years	More Than 2 and Less Than 4 Years	More Than 4 and Less Than 8 Years	More Than 8 Years	Total
3	4	3	10	5	5	10	4	4	2	0	10

TLC Participants

Location				Gender			Qualifications				Qualifications				
Urban	Semi-Urban	Rural	Total	Male	Female	Total	High School (12 Year)	TTC (2 Year Diploma)	BA (4-Year Diploma)	Total	Less Than 2 Years	More Than 2 and Less Than 4 Years	More Than 4 and Less Than 8 Years	More Than 8 Years	Total
3	3	4	10	6	4	10	5	3	2	10	4	3	2	1	10

Short-term Training Participants

Location				Gender			Qualifications				Qualifications				
Urban	Semi-Urban	Rural	Total	Male	Female	Total	High School (12 Year)	TTC (2 Year Diploma)	BA (4-Year Diploma)	Total	Less Than 2 Years	More Than 2 and Less Than 4 Years	More Than 4 and Less Than 8 Years	More Than 8 Years	Total
5	3	2	10	7	3	10	3	4	3	10	2	4	3	1	10

### G. Basic Information of Teachers Completed Questionnaires - Total 108 Participants

#### TTC Graduate Participants

Location				Gender			Qualifications				
Urban	Semi-Urban	Rural	Total	Male	Female	Total	Less Than 2 Years	More Than 2 and Less Than 4 Years	More Than 4 and Less Than 8 Years	More Than 8 Years	Total
12	12	12	36	19	17	36	9	19	7	1	36

#### TLC Participants

Location				Gender			Qualifications				Qualifications				
Urban	Semi-Urban	Rural	Total	Male	Female	Total	High School (12 Year)	TTC (2 Year Diploma)	BA (4-Year Diploma)	Total	Less Than 2 Years	More Than 2 and Less Than 4 Years	More Than 4 and Less Than 8 Years	More Than 8 Years	Total
12	12	12	36	21	15	36	21	8	7	36	5	19	9	3	36

#### Short-term Training Participants

Location				Gender			Qualifications				Qualifications				
Urban	Semi-Urban	Rural	Total	Male	Female	Total	High School (12 Year)	TTC (2 Year Diploma)	BA (4-Year Diploma)	Total	Less Than 2 Years	More Than 2 and Less Than 4 Years	More Than 4 and Less Than 8 Years	More Than 8 Years	Total
12	12	12	36	25	11	36	19	10	7	36	7	9	14	6	36

## H. Basic Information of Schools for Student Document Review

School Type	Location	Grade	Subject	Teacher TPD Participation	Sex	Current Total Students
High School	Urban	5	Dari Language	TTC	Male	6
					Female	17
<b>Sub-total</b>						<b>23</b>
High School	Semi-urban	5	Dari Language	TLC	Male	11
					Female	9
<b>Sub-total</b>						<b>20</b>
Middle School	Rural	5	Dari Language	Short-term Workshops	Male	13
					Female	5
<b>Sub-total</b>						<b>18</b>
<b>Grand Total</b>						<b>61</b>