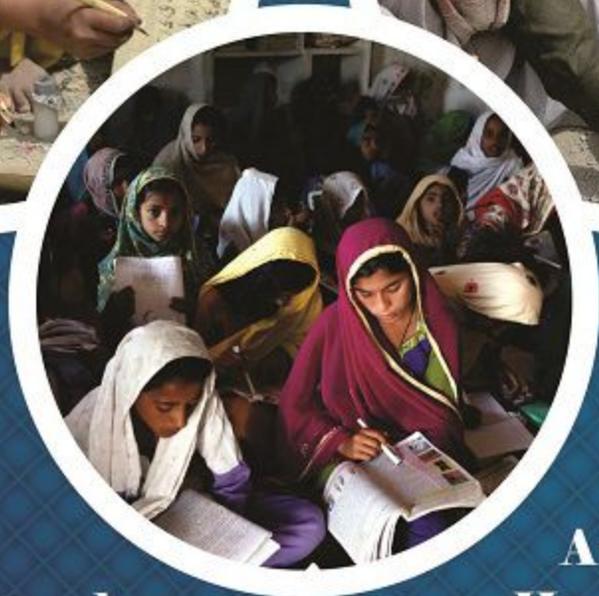
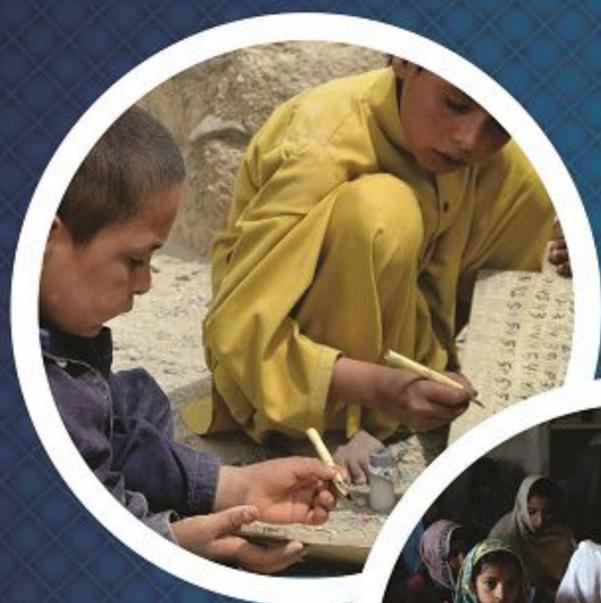


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# **Effectiveness of Prime Minister's Education Reform Program: A Case Study from Pakistan**



**Shaheen Masud**

**Assisted by  
Humeira Awan**



**Institute of Strategic Studies Islamabad (ISSI)**

# **THE INSTITUTE OF STRATEGIC STUDIES ISLAMABAD, PAKISTAN**

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# **Effectiveness of Prime Minister's Education Reform Program: A Case Study from Pakistan**

**Shaheen Masud\***

Assisted by  
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**September 2017**

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## **Rationale of the Study**

Education is the main driver of development for any country, and the Government of Pakistan (GoP) is striving for developing a widely accessible and egalitarian system in Pakistan in tandem with its constitutional obligations, national and international commitments. There have been a number of commissions, policies and plans, but even after a lapse of seventy years, the education system in Pakistan suffers from serious ailments. In a nutshell, these problems are: multiple education systems, lack of adequate budget, poor physical facilities, outdated curricula, lack of teacher quality, low enrollment, high scale dropouts, political interference, poor management and supervision, absence of monitoring and evaluation of teaching and learning and lack of political will. The education system has thus failed to take the nation out of increasing economic and political quagmire. This research will dilate on the education policies and plans, national and international commitments of the Government of Pakistan along with the present status of education.

Cognizant of the dynamic force of education as a milestone to national development, Prime Minister Nawaz Sharif's Educational Reform Program [PMERP] has been launched for Islamabad Capital Territory [ICT] as a pilot project to address the widely known deficiencies in the education system. Its aim is to translate the Prime Minister's Vision for improving and reforming the overall education system of public schools in ICT in order to put Pakistan on a fast track of development. This study will examine the long term effects of PMERP, if any, on the education landscape and explore its efficacy and effectiveness to serve as a catalyst for future nationwide educational reforms, and if successful, replicating it in other provinces and areas of Pakistan.

## **Objectives of the Study**

The main objectives of the study are:

- i. ***To examine the nature and scope of the interventions by PMERP in ICT.***

This study will take stock of multifaceted interventions of PMERP including physical, revamping

of ICT institutions and academic initiatives undertaken along with structural and institutional reforms. The first phase of program targeting 22 ICT schools has been completed in 2015-16. The second phase targeting 200 schools will be completed in June 2016-17. Thereafter, the program would be extended to the remaining 200 schools. Thus covering 422 schools of ICT. These long awaited interventions stemmed from the desperate need for reform in ICT education sector in congruence with national and international commitments. The driving force behind PMERP is Article 25(A) of the Constitution of Pakistan which mandates to provide free and compulsory education to all children between ages 5-16.

ii. ***To establish difference between experimental and control groups, if any, with respect to:***

a. *Enrollment*

PMERP has taken a number of initiatives to increase enrollment in ICT schools, with major focus on provision of missing facilities to schools, renovation, uplift and rehabilitation of physical infrastructure i.e. construction of additional rooms, boundary walls, renovation of toilet blocks, classrooms, halls, entrances, flooring along with provision of furniture, computer labs, equipment, transport facility, establishment of Montessori for ECE as per need assessment carried out by FDE. Furthermore, introduction of biometric system for the first time in ICT schools aims at promoting punctuality and combating absenteeism. This study will attempt to ascertain the effect of enabling environment created by PMERP in the schools to increase enrollment and motivate parents, teachers and students.

b. *Learning Achievements*

This study endeavors to explore the status of students learning abilities after PMERP's cardinal intervention to improve teachers' professional development through

trainings on specially designed modules, innovative teaching methodologies, and interactive learning, as well as:

- a. *Ownership by students and teachers.*
- b. *Motivation for learning and teaching.*

Ownership is defined as a complex, multifaceted process that captures the relationships that students build between themselves and the school in which he/she studies. Ownership has a direct correlation with improved school facilities, qualitative teaching along with motivation of students and teachers. The study aims at finding out the satisfactory level of students and teachers after PMERP's interventions leading to ownership of the program.

## **Literature Review**

A growing body of research has found that a school's physical environment and facilities can have a profound impact on both teacher and student's outcomes i.e. with respect to teachers, proper school facilities effects teacher recruitment, retention and commitment. For students, physical facilities impacts on students learning, growth, social emotional and ethical development, as well as behavior and performance.<sup>1</sup> Furthermore, provision of facilities increases class attendance, level of confidence and motivation. Children too, need safe, healthy and stimulating environment as they spend 6 to 8 hours at the school premises. Hence, favorable school environment provides necessary stimulus for learning experience.<sup>2</sup>

A study in India articulated that "*Destiny of India is being shaped in the classroom,*" and the significant role that a school environment plays on students learning, growth, social, emotional and ethical development has far reaching impact for nation

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<sup>1</sup> McGuffey, Carroll. "Facilities." *Improving educational standards and productivity: The research basis for policy* (1982): 237-288.

<sup>2</sup> Lowe, Jerry Milton. *The interface between educational facilities and learning climate in three elementary schools.* 1990.

building.<sup>3</sup> A research study in Nigeria reveals that school environment effects psychological well-being of the pupil, as well as motivation\absenteeism\dropout rate and behavioral problems.<sup>4</sup> The findings of this study reveal that availability of adequate physical facilities in the primary schools greatly affected the satisfaction of the pupils in rural and urban location. Therefore, both the state government and education stakeholders are obligated to provide a congenial environment for proper satisfaction of students and teachers.<sup>5</sup>

A perusal of a research study in Malaysia based on analysis of data obtained from 377 secondary schools shows that school environment plays 40% role in students academic performance. It also concludes that schools provided with modern equipment, computers, internet facility, laboratories and libraries make learning easier and faster. In addition, schools which have trained teachers have a greater impact on children's academic performance.<sup>6</sup>

A research study in Iran on effect of school design on student performance also shows that schools physical environment and design has a profound effect on student motivation and learning.<sup>7</sup> Another study contends that the internal features learning spaces can

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<sup>3</sup> India. Education Commission, and D. S. Kothari. *Report of the Education Commission, 1964-66: Education and National Development*. Government of India Press, 1966.

<sup>4</sup> Ainley, John, and Phil McKenzie. "The influence of school factors." (1999).

<sup>5</sup> Aina, Stephen Ileoye. "Effects of school facilities on pupil's satisfaction with schooling in Ondo State, Nigeria." *Journal of Emerging Trends in Educational Research and Policy Studies* 6, no. 2 (2015): 146-149.

<sup>6</sup> Usaini, Mudassir Ibrahim, Norsuhaily Binti Abubakar, and Ado Abdu Bichi. "Influence of School Environment on Academic Performance of Secondary School Students In Kuala Terengganu, Malaysia." *The American Journal of Innovative Research and Applied Sciences* 1, no. 6 (2015): 203.

<sup>7</sup> Mohsin.et;al, (2015), The effect of school design on student performance,Vol,9N0 1,2016.

help students focus their attention on studying or prevent them from giving full attention to learning.<sup>8</sup>

According to Goods Dictionary of Education, teacher education encompasses all the formal and non-formal activities and experiences that help to qualify a teacher to discharge his/her responsibilities. Training on the other hand implies acquisition of skills through up-gradation of knowledge and increased competencies complemented by enrichment of new ideas, concepts, refreshment of techniques, and learning experiences to increase professional effectiveness.<sup>9</sup> Teacher education can be considered as the triangular combination of teaching skills content knowledge, pedagogical and professional skills, and classroom management and communication skills.<sup>10</sup>

A study from Sri Lanka which has a literacy rate of 90% with per capita income of only \$584 indicates that wide ranging teacher training reforms were undertaken in 1989 with new approaches to teacher training in education.<sup>11</sup> Study from Indonesia shows that teachers' participation in professional development activities add a positive impact on students' learning performance.<sup>12</sup> The relevant activity included improving qualification, refreshing content knowledge and understanding of subjects in addition to enhancing learning skills and practicing on ways and means to teach students

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<sup>8</sup> Yeung, Alexander S., Rhonda G. Craven, and Gurvinder Kaur. "Teachers' self-concept and valuing of learning: relations with teaching approaches and beliefs about students." *Asia-Pacific Journal of Teacher Education* 42, no. 3 (2014): 305-320.

<sup>9</sup> Schofield, Hilary L. "Teacher effects on cognitive and affective pupil outcomes in elementary school mathematics." *Journal of Educational Psychology* 73, no. 4 (1981): 462.

<sup>10</sup> Moreno, Roxana, and Ludmila Ortegano-Layne. "Do classroom exemplars promote the application of principles in teacher education? A comparison of videos, animations, and narratives." *Educational Technology Research and Development* 56, no. 4 (2008): 449-465.

<sup>11</sup> Dharmadasa, Kiri H. "Sri Lankan Teachers' Development." (1996).

<sup>12</sup> Cohen, David K., and Heather C. Hill. *Instructional policy and classroom performance: The mathematics reform in California.* (1998).

with different backgrounds, developing practical competencies and skills learning new methodologies and innovations.<sup>13</sup>

A study from Malaysia also highlights the importance of professional development of teachers for enhancing education quality with focus on pre-service and in-service courses for which Malaysian government allocates a sizable portion of its budget.<sup>14</sup> In today's technological age, policy makers in many countries are trying to integrate technology into their education system. Numerous research studies have documented the advantages of using technology in education.<sup>15</sup> Technology is considered as a catalyst for promoting and encouraging the development of higher order thinking skills. A case study from Turkey discussed that it had two inbuilt technological courses essential for each elementary teacher. However, majority of elementary school teachers in Turkey are still using traditional methods in classrooms, which is teachers-centered and didactic.<sup>16</sup>

Montessori education aims at developing the potential of children by treating each child as a unique individual. Montessori students develop order coordination, concentration, independent thinking and collaborative working. A study on social and academic impact of Montessori education on experimental and controlled groups indicates that on several dimensions, at the end of kindergarten Montessori children perform better on standardized tests of reading, showed more advanced social cognition and wrote more creative essays.<sup>17</sup>

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<sup>13</sup> Perraton, Hilary. "1 The context." *Distance education for teacher training* (2002): 1.

<sup>14</sup> Mokshein, Siti Eshah, Hussein Haji Ahmad, and A. Vongalis-Macrow. "Secondary Teacher Policy Research in Asia: Towards providing quality secondary education: Training and retaining quality teachers in Malaysia." (2009): 1-28.

<sup>15</sup> Osman, L. M., and A. L. Muir. "Computer skills and attitudes to computer-aided learning among medical students." *Medical education* 28, no. 5 (1994): 381-385.

<sup>16</sup> Kurt, Serhat. "Technology use in elementary education in Turkey: A case study." *New Horizons in Education* 58, no. 1 (2010): 65-76.

<sup>17</sup> Lillard, Angeline, and Nicole Else-Quest. "The early years: Evaluating Montessori education." *Science* 313, no. 5795 (2006): 1893-1894.

A further study from Nigeria on systems reform illustrated the difference between a change and a reform, and how reforms impact on the entire education system with long term multiplier effect on the entire spectrum of education. Any reform, to be successful, should impact on wide range of education stakeholders i.e. institutions, grassroot organizations, teachers, parent-teacher associations, government agencies, professional bodies and the education ministry. In Nigeria, reforms encompassed structure and systemic changes, but lack of implementation was a severe constraint.<sup>18</sup>

A study in South Eastern Europe illustrated that centralized systems had a strong potential to maintain status quo for the fear of losing control, and resistant to change as in Serbia, Romania and Bulgaria. The major deficiencies of centralized governance and management systems in education are weak involvement of key stakeholders at the grass- root level in decision making. This study shows that the developing nations are skeptical to decentralize powers vertically or horizontally.<sup>19</sup>

## **Methodology**

This study aimed at focusing on the effectiveness of interventions made under PMERP with respect to access, ownership, quality of education i.e. students learning achievements and motivational level of students and teachers. For this purpose, two groups namely experimental and controlled group were formulated. Experimental group comprised of 12 institutions in which PMERP intervention were made and another 12 institutions in the same vicinity, wherein PMERP interventions have yet to be under taken [See Appendix 1]. Both groups were compared with respect to:

- i. Enrollment.
- ii. Ownership.

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<sup>18</sup> Obanya, Pai. “Reforming educational reforms.” *Education reforms in Nigeria. Ilorin: University of Ilorin* (2008).

<sup>19</sup> Rado, Peter. “*Governing decentralized education systems: Systemic change in South Eastern Europe.*” (2010).

- iii. Students learning achievements.
- iv. Motivational level of students and teachers.

To obtain data on above mentioned indicators, tools were developed and got validated by the experts in the field. Furthermore, structured interviews of head teachers and teachers were also conducted to ascertain the data about enrollment, ownership, access to quality education. Teachers' professional development, punctuality/discipline and motivational level were also analyzed. Data were analyzed through statistical software. Accordingly, findings were formulated and conclusions were drawn and recommendations were made.

## I. INTRODUCTION

In today's era of technological advancement, development of nations is linked to the education of its citizens and availability of trained human resource. Hence, education is an instrument of socio-economic human development and pivotal to scientific and technological promotion. Education plays a vital role in human capital formation and is a necessary tool for combating unemployment and providing equitable sustainable growth.

The 1973 Constitution of Pakistan commits the state to eradication of illiteracy and provision of free education up to secondary level under the section on "Principles of Policy". This determination was reflected in the following words; "the state shall remove illiteracy and provide free compulsory secondary education within minimum possible period."<sup>20</sup> Furthermore, the Government of Pakistan (GOP) is bound to ensure full participation of women in all spheres of national life.<sup>21</sup>

In April 2010, Article 25A was incorporated in the Constitution which recognizes free access to school education as a fundamental constitutional and enforceable right of all children of age 5-16. It delineates, "state shall provide free and compulsory education to all children of age 5-16 years in such a manner as may be determined by law."<sup>22</sup> After the 18<sup>th</sup> constitutional amendment, education was devolved to the provinces and it became the responsibility of the Parliament and Provincial Assemblies to legislate for the provision of free and compulsory education in their respective jurisdiction.<sup>23</sup>

Since the inception of Pakistan, every successive government has come out with some blueprint to provide access to universal and free education to the masses in order to combat illiteracy. Each

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<sup>20</sup> Constitution of Pakistan, Article- 37 B, National Assembly of Pakistan (1973).

<sup>21</sup> Constitution of Pakistan, Article- 34, National Assembly of Pakistan ,(1973).

<sup>22</sup> Constitution of Pakistan, Article 25-A, National Assembly of Pakistan (1973).

<sup>23</sup> The Constitution of Pakistan, Article 25-A, National Assembly of Pakistan,(2010)

policy has been ambitious in its claim and critical of past failures. However, a common feature of all the policies, programs, and plans is that all of them have been unsuccessful in changing Pakistan's education landscape and meeting educational challenges. This chapter gives background of key previous policies and plans of GOP, in order to correlate and correspond to the new initiative of Prime Minister's Education Reform Program in Islamabad Capital Territory

### **National Education Policies (1998 - 2010)**

Salient features of the above mentioned policy is given below:

- Increasing enrollment and enhancing education budget.
- Removal of urban-rural and gender imbalances in education sector.
- Focusing on out-of-school children.
- Addressing the issue of adult literacy through educational programs.
- Encouraging private sector participation and community involvement.
- Improving access to higher education.

However, this policy could not be fully implemented because of military intervention and consequent change of government.<sup>24</sup>

### **National Educational Policy (NEP) 2009**

This landmark, comprehensive document was prepared in consultation with federating units, members of civil society, universities, specialists, academia, private sector, non-governmental organizations, and international development partners. NEP 2009 addresses key areas and recommends key policy actions after taking stock of major deficiencies in education system. The policy identifies two fundamental causes responsible for the weak performance of the education sector, i.e. the commitment gap [system, values, priorities and resources] and the implementation

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<sup>24</sup> Government of Pakistan, Ministry of Education, National Education Policy (1998-2010)

gap [ensuring good governance]. It also outlines the strategies to fill in the above mentioned gaps.

The following key policy actions were identified and recommended:

- Achieving universal and free primary education by 2015 and up to class 10 by 2025.
- Enhancing education budget to 7% of the GDP by 2015.
- Building management and planning capacities with strengthened implementation capacities.
- Promoting access and quality of early childhood education (ECE).
- Achieving 86% adult literacy rate by 2015 through up scaling of ongoing adult related educational programs and non formal basic education in the country.
- Raising the quality of education through improved teacher quality, institutionalized pre-service and in-service training for continuous professional developments.
- Progress in career to be linked to professional development.
- Bachelors degree with a B.ED as a prerequisite for teaching at the elementary level and a Masters degree for secondary and higher secondary level.
- Reforms in the area of curriculum, text books, assessment approaches, teaching learning resources.
- Focus on Technical Education and Vocational Training (TEVT) with development of TEVT curriculum.
- Raising enrollment in higher education sector from 4.7% to 10% by 2015 and 15% by 2020.
- Focus on Islamic teaching in the curriculum and teaching of Islamiyat as a compulsory core subject from early childhood to higher secondary level.
- Initiation of non-formal education stream for child laborers and other such groups including older people.
- National standards for educational inputs, processes, and outputs shall be determined.
- Promoting equity in education by narrowing Provincial and Area disparities, rural-urban divide, and provision of

increased opportunities for marginalized groups particularly girls.

The platform of Interprovincial Education Ministers Conference [IPEMC] was instituted to follow up the implementation of the NEP (2009) and provide strategic guidance to federal and provincial representatives.<sup>25</sup>

The 18<sup>th</sup> amendment to the constitution [2010] abolished the concurrent list and transferred the residuary powers to the provinces. At the Federal level, Ministry of Federal Education and Professional Training was created in 2011. The mandate of the Ministry is to prepare policy directions, planning, and coordination. It focuses on providing quality professionals and equipping them through standardized trainings in order to meet national and international demand for skilled work force.

The IPEMC forum institutionalized through NEP 2009 is still active and functional. Its limited role continues without infringement on the respective roles of Federal and Provincial Governments as envisaged in the Constitution. However, the government is cognizant of the fact that devolution warrants review of NEP 2009, which is a living document. Hence, a decision has been taken in June 2015 by IPEMC to update NEP 2009. The review will focus on Article 25A and Pakistan's commitment to UN Sustainable Development Goals (SDGs). For this purpose, Ministry of Federal Education and Professional Training has hired a consultant and initiated a process of broad based consultations. However, until the revision is finalized and approved, NEP 2009 will continue to be implemented as the core National Education Policy document.<sup>26</sup>

## **Pakistan Vision 2020-25**

Vision 2020-2025 was developed under the auspices of Ministry of Planning, Development and Reform in August 2014 by GoP after extensive consultations and inputs of all the relevant stakeholders

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<sup>25</sup> National Education Policy, Ministry of Education, Islamabad (2009).

<sup>26</sup> Consultation meeting on National Education Policy 2016. Report-ICT, (2015).

including development partners, to produce a common national vision for Pakistan. The ambitious aim of Pakistan Vision 2020-25 is to put Pakistan on fast track of development with the ultimate goal of transforming it to become one of the top ten economies of the world by 2047. It has seven pillars and 25 goals.

This research will focus on the pillars encompassing education and women empowerment, which has a direct bearing on the status of education in Pakistan. Pillar-I of the Vision 2020-2025 deals with the development of human and social capital. The policy recognizes the fact that Pakistan lags far behind other developing nations and countries of South East Asia & South Asia in areas like education, health, human and social development, and addresses the inadequacies and gaps accordingly. In order to address the formidable challenges in the education sector, Vision 2020-25 focuses on the following:

1. Increasing public expenditure on education from current 2.2, to 4% of GDP by 2018.
2. Increasing primary enrolment rate to 100%, and literacy rate to 90% by 2025.
3. Increasing Higher Education Coverage from 7% to 12% and number of PHD's from 7000 to 15000 by 2020-25.
4. Improving Primary and Secondary Gender parity index to one and female work force participation rate from 24% to 45% by 2020-25.

The main vehicle for realization of the Vision would be through strategies and programs defined in Five Years and Annual development plans.<sup>27</sup>

Cognizant of the fact that Pakistan lagged behind in achieving the Millennium Development Goals (MDG), Vision 2020-25 encompasses a number of focus areas of SDGs and the resolve to attain them before their target date of the 2030. The following table reinforces this contention.

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<sup>27</sup> One Nation-One Vision, Planning Commission, Ministry of Planning & Development, Pakistan Vision (2020-25.)

<b>Table 1</b>		
	<b>Pillar's of Vision 2020-25</b>	<b>Linkage with SDGs</b>
1	People First: Developing social and human capital and empowering women	SDGs (poverty), 3, (health) 4 (education), and 5 (gender)
2	Developing a competitive knowledge economy through value addition	SDG 9 (innovation), and 4 (education)
3	Sustained indigenous, and inclusive growth	SDG,s 8, 10, 12, 14, 15
4	Democratic governance: Institutional reform and modernization of the public sector	The language is similar to that of SDG 16

**Source:** *Pakistan 2020-25, One Nation One Vision, Planning Commission, Ministry of Planning Development and Reform, GoP.*

## **Pakistan's International Commitments**

Pakistan is signatory to a number of International Conventions and Covenants. This research focuses on Pakistan's international commitments directly related to education, or having a bearing on education scenario in Pakistan. A brief resume of such international commitments is essential for tracking Pakistan's progress in vital field of education in relation to its international commitments and the present status of education in Pakistan.

### **Universal Declaration of Human Rights**

Pakistan endorsed the Universal Declaration of Human Rights in 1948 which highlights the following:

- Right of everyone to free and compulsory elementary education.
- Large scale access to technical and professional education.
- Opportunities to higher education on the basis of merit.<sup>28</sup>

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<sup>28</sup> Universal Declaration of Human Rights, United Nations, Article-26, 1948.

## **Pakistan Commitment to Education for All Framework (EFA), (2000-2015): Meeting Our Collective Commitment**

In April 2000, Pakistan along with other 164 countries signed DAKAR Framework for Action EFA and committed to achieving six (EFA) Goals by 2015. Thereafter, Pakistan took the initiative in developing National Plan of Action for EFA during 2002, followed by preparation of provincial and district EFA plans. The present position as regards to follow up on EFA is as under:

<b>Goal No.</b>	<b>Pakistan's Present Status</b>
GOAL 1: Expanding and improving Comprehensive Early Childhood Education (ECE), especially for the most vulnerable disadvantaged children.	<ul style="list-style-type: none"> <li>• Pakistan has made progress in participation in ECE activities after making it a part of formal system of education.</li> <li>• Standards, curriculum and teacher training packages for Pre-Primary ECE National Curriculum has been approved</li> <li>• National average for ECE pre-primary GER was 66% in 2012-13.</li> <li>• In public sector schools, pre-Primary is part of Primary and pre-Primary "Katchi Class" does not have a separate class room nor qualified teachers. In private sector, good quality ECE facilities are available.<sup>29</sup></li> </ul>
GOAL 2: Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to, and complete, free and compulsory primary education of good quality.	<ul style="list-style-type: none"> <li>• Pakistan lags behind in achieving its target of Universal Primary Education.</li> <li>• Gross Primary Enrolment Rate in 2014-15 is 94% for males and 81% for females.</li> <li>• Net Enrolment Rate is 60% for male and 53% for females.</li> <li>• Literacy rate of the population (10 year and above) is 60% with 70% literacy rate for male and 49% for</li> </ul>

<sup>29</sup> Pakistan Education for All, *Ministry of Federal Education and Professional Training, Review Report, 2015.*

	<p>females.</p> <ul style="list-style-type: none"> <li>44% of children between age 5 to 16 are out of school.<sup>30</sup></li> </ul> <p>Only two third of the enrolled children survive up to grade 5.<sup>31</sup></p>
<p>GOAL 3: Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate and life skills programs.</p>	<ul style="list-style-type: none"> <li>Due to limited budgetary allocation for youth education, youth literacy has increased at a slow pace.</li> <li>Youth literacy rate pertaining to youth aged 15-24 has increased from 63% in 2001-02 to 71.6% by 2012-13</li> <li>Lesser opportunities for girls for improving youth literacy especially in rural areas. The largest gap exists in Baluchistan and Khyber Pakhtun khwa [KPK] due to socio-cultural constraints.<sup>32</sup></li> </ul>
<p>GOAL 4: Achieving a 50% improvement in levels of adult literacy by 2015; especially for women, and equitable access to Basic And Continuing Education for all adults.</p>	<ul style="list-style-type: none"> <li>As a result of low budgetary allocation, absence of strong coordination and management mechanism and effective strategies for reaching the vulnerable population, adult literacy progressed at 1% per annum. The average adult literacy rate in Pakistan is only 56% out of estimated of 52 million illiterates of which 62% are females.<sup>33</sup></li> </ul>
<p>GOAL 5: Eliminate gender disparities in primary and secondary education by 2015 and achieve gender equality in education by 2015 with a focus on ensuring girls full and equal access to and achievement in basic education of good quality.</p>	<ul style="list-style-type: none"> <li>Eliminating gender disparities and achieving gender equality in education by 2015 is an elusive dream.</li> <li>According to Human Development Index, 2014 Pakistan ranks 126<sup>th</sup> out of 149</li> </ul>

<sup>30</sup> Pakistan Social and Living Standards Measurements(PSLM), Pakistan Bureau of Statistics, (2015)

<sup>31</sup> Pakistan Education Statistics, Ministry of Federal Education and Professional Training, (2015-16)

<sup>32</sup> Pakistan Education For All Review Report,( 2015), op.cit.

<sup>33</sup> Economic Survey of Pakistan, (2014-15)

	<p>countries in gender inequality index.<sup>34</sup></p> <ul style="list-style-type: none"> <li>• Female Literacy Rate stands at 48% in comparison to male literacy rate 71%.</li> <li>• Net Enrollment Rate (NER primary) for female is 64% as compared to NER Primary male i.e. 72%.<sup>35</sup></li> </ul>
<p>GOAL 6: Improve all aspects of the quality of education and ensure excellence so that recognized and measureable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.</p>	<ul style="list-style-type: none"> <li>• National Education Assessment Report 2014 assessed students of grade 4 and grade 8 in 6 subjects three each from both the classes, over a sample of 11200 students from 448 schools through national achievements test conducted by National Education Assessment System [NEAS].</li> <li>• Scores were measured over a scale of 0-1000 with standard deviation of 100 and mean score of 500.</li> <li>• Grade 4 students were assessed in English reading, English writing and Science. While assessment of grade 8 was made in Urdu reading, Urdu writing and Mathematics.</li> <li>• Alarmingly the scale mean score in these subjects remained below average.</li> <li>• In Urdu reading, students below the set mean of 500 were 49%, in Urdu writing 90% students were below the mean, in Maths 74% students obtain scaled mean score. In subject of Urdu writing results were alarming as the score remained much below the set scale.</li> <li>• In English reading, students below mean were 56% and English writing 87% students could not reach the mean score. In the</li> </ul>

<sup>34</sup> UNDP Human Development Report, (2014)

<sup>35</sup> Annual Status of Education Report, (2014).

	subject of science about 85% of students could not cross the proficiency limit. <sup>36</sup>
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## Millennium Development Goals [MDGs]

Pakistan is signatory to Millennium Development Goals (2000-15). It had adopted 16 targets and 141 indicators against which the progress pertaining to achieving the 8 goals of the MDGs is measured. Goal 2 relates to, “*achieving universal primary education*” and Goal 3 “*promoting gender equality and empowering women.*”<sup>37</sup>

Pakistan is severely lagging behind in Goal 2 which aims at Universal Primary Education. In addition, it has not been able to achieve the targets set for 2015, particularly the completion / survival rate seems to have declined in recent years which depicts that more than quarter of the students enrolled in Primary Schools do not complete their education. Following table elucidates the present position:

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<sup>36</sup> National Assessment Report, Ministry of Federal Education and Professional Training, (2014).

<sup>37</sup> UNDP Pakistan Report on MDGs, (2000).

<b>Table 3</b>		
<b>MDGs</b>	<b>Pakistan Present Position</b>	
MDG-2: Achieving Universal Primary Education	<b>Pakistan's progress towards MDG 2 by 2013-14</b>	
	<b>Indicator</b>	<b>MDG Target 2015</b>
	<b>Net Primary Enrolment Rate (5-9 Years)</b>	100%
	<b>Survival Rate to Grade-V</b>	100%
		<b>Pakistan</b>
		Total : 57% Male : 60% , Female : 53%
		Total : 54% Male : 56% , Female : 52%
		Total : 58% Male : 70% , Female : 47%
<i>Source: Highlights of Pakistan Economic Survey, Ministry of Finance , 2014-15 &amp; Pakistan Education Atlas , Ministry of Federal Education and Professional Training,2014.</i>		

In the attainment of promoting gender equality and empowering women Pakistan is mostly off track as evident from the Table below:

<b>Table 4 :</b>		
<b>MDGs</b>	<b>Pakistan's progress towards MDG -3 by 2013-14</b>	
MDG-3: Promoting Gender Equality and Empowering Women	<b>Indicator</b>	<b>MDG Target 2015</b>
	<b>Net Primary Enrolment Rate (5-9 Years)</b>	1.00
	<b>Survival Rate to Grade-V</b>	0.94
	<b>Literacy Rate (10 years and above)</b>	1.00
	<b>Seats held by Women in National Parliament</b>	-
		<b>Pakistan</b>
		0.88
		0.84
		0.63
		21%
<i>Source: ASER, Pakistan, 2014</i>		

## Sustainable Development Goals [SDGs]

Pakistan, which remained off track in achieving the Millennium Development Goals (MDGs) of universal primary education and gender equality (MDG 2 and 3), has endorsed the more ambitious SDGs, on September 25<sup>th</sup> 2015. The 2030 Agenda for Sustainable Development with 17 goals and 169 targets, commits the stakeholders to work together to promote sustained and inclusive economic growth, human and social development, health and education, poverty alleviation, environmental protection etc.

These ambitious goals require unflinching commitment to provide adequate resources from National Exchequer for decade and a half. The objectives underpins good governance and integrate three dimensions of sustainable development, economic development, human resource development and environmental sustainability.<sup>38</sup> This study will focus on Goal 4 and Goal 5 of SDGs. The present situation pertaining to Goal 4 is depicted in the following table:

<b>Goal No.</b>	<b>Pakistan Present Status</b>
Goal 4: Providing Equitable and Inclusive Quality Education and Life-long Learning Opportunities.	<ul style="list-style-type: none"> <li>• In this regard, Pakistan Education Scenario presents a gloomy picture.</li> <li>• ASER Report Survey conducted in 146 rural districts of Pakistan reveal that 45% enrolled in class 5 were still not able to read a class 2 level story in their local language.</li> <li>• Around 51% of class 5 children could not read sentences in English (Class 2 level).</li> <li>• 50% could not solve 2 digit division sums .</li> </ul> <p><b>Source:</b> <i>Annual Status of Education Report, ASER Pakistan, 2015.</i><sup>39</sup> <i>In order to achieve education related SDGs, enhanced funding to education sector would be a pre requisite.</i></p>
Goal-5: Attaining Gender Equality, by empowering women	<ul style="list-style-type: none"> <li>• 88 girls for every 100 boys go to primary schools in Pakistan.</li> <li>• There is a large gender gap in literacy rates for</li> </ul>

<sup>38</sup> United Nations Educational Scientific and Cultural Organization Report on SDGs, (2017)

<sup>39</sup> Annual Status of Education Report, *ASER Pakistan*, (2015)

and girls.	<p>adults aged 15 and above with a literacy rate of 45% for females, as compared to 57% for males [ASER Report, 2015]</p> <ul style="list-style-type: none"> <li>• Only 25% of the mothers have least primary schooling in comparison to 50% fathers.</li> <li>• 43% of the 81% children aged between 6-16 years enrolled in schools are girls.</li> </ul> <p>(PSLM 2014-15 &amp; ESER Report, 2015).</p>
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As is evident from above, achieving targets outlined against each SDGs is a daunting task which can only be achieved through realigning the policies, recalibrating Education Sector Plans, recalculating the Finances and Responsive Monitoring and Evaluation .

## II. PRIME MINISTER'S EDUCATION REFORM PROGRAM (PMERP)

Prime Minister's Education Reform Program [PMERP] 2015-18 has been launched for Islamabad Capital Territory (ICT) extending over 3 phases to be completed by 2018. The aim of the program is to translate Prime Minister's Vision/Directive on revamping public sector institutes in ICT by improving the overall quality, standards of teaching and learning along with providing access and creating a conducive learning environment for the students.<sup>40</sup>

Pertinently, this vision complements the focus on qualitative improvement and quantitative expansion of all sectors of education as highlighted in Medium Term Development Framework [MTDF] Five year plan, and NEP 2009. The project is being implemented by an independent PMU under Capital Administration and Development Division [CADD] to implement its multidimensional activities. ICT is divided into two sectors: Urban and Rural viz Tarnol, Nilore, Barakhou, Sihala. The total number of public sector institutions in ICT are 422, out of which two 278 are in rural areas, and 144 in urban sector. These include primary, elementary, secondary, higher secondary, colleges, model schools and federal government degree colleges. Total enrollments in these institutions is 2,00,3291 and gender wise breakup is 1,05,47146 girls and 94,85144 boys.<sup>41</sup>

Under the first phase, the program was been completed in 22 ICT institutions i.e four from Barakou, six from Nilore, three from Sihala, two from Tarnol, and seven from Urban ICT. The first phase of the program has been completed, at the cost of 150 million with additional 35 million for PMU. Second phase of the program [2016-2017] envisages the identical interventions in 200 ICT educational institutions for which an allocation of rupees 2.7 billion has been approved.<sup>42</sup> The third phase of the program will target another 200

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<sup>40</sup> PM Directive & Approval Vide, UO No. F.1-2/JSE ,(2016)

<sup>41</sup> Education Management Information System-FDE, (2015)

<sup>42</sup> Renovation/rehabilitation of physical infrastructure of 200 Educational Institutions under Prime Minister's Education Sector Reforms Program in ICT, Planning Commission Performa [PC-1], (2016)

educational institutions of ICT with the same components, for which funds have yet to be worked out and allocated.

### **Components of PMERP**

#### ***1. Renovation/Upgradation of physical infrastructure of 422 educational institutions (including missing facilities) and provision of 200 buses.***

The qualitative improvement and quantitative expansion of all sectors of education is the focus of Midterm Development Framework and NEP 2009. After devolution of education to provinces, CADD has been made responsible for handling all matters pertaining to education in Federal Area of ICT. The above intervention aims at construction of additional 201 classrooms along with furniture, computer machinery, and equipment, It also focuses on rehabilitation of physical infrastructure i.e raising of boundary walls, special repairs/renovation of toilet blocks, classrooms/halls, entrance, flooring, with razor wire, boring-work and miscellaneous items in 422 educational institutions of Federal Area.

It may be highlighted that the Federal Directorate of Education is mandated to impart education to children in ICT. It has 422 educational institutions ranging from primary to post-graduate level located in urban, as well as far flung areas of Islamabad. However, the school buildings were ramshackled, boundary walls and toilets were dilapidated, and most of the schools were without science and computer labs. Schools also lacked required equipment, furniture and fixtures. Responding to the long outstanding requirement of the general public of ICT and in consonance with National Education Policies, the launching of the program was an absolute necessity.

Initially, the program envisages rehabilitation of physical infrastructure in 200 education institutions out of 422 at cost of Rs.2742.001 Million in the financial yea 2016-17. The cost for remaining 200 institutions will be reflected in the fiscal year 2017-18. In phase-1 the work has been completed in 22 institutions (See Appendix-II).

Most of the neglected schools in ICT, established in early eighties or late nineties, were in a deplorable condition with a pressing need for renovation, repairs and upgradation of

infrastructure, with expected increase in enrollment in the coming years PMERPs interventions were indispensable.

## ***2. Continuous Professional Development (CPD)***

One of the major challenges in the education sector is providing quality education in schools for its growing population and diversifying needs. Unfortunately, within the education sector the core element of teacher education and staff development has been a grossly neglected area. The most important part of teacher training program is effective teaching practices for using interactive learning methodologies to equip them with skilled knowledge to impart effectively to the students. Unfortunately, in ICT, teaching practices have not produced any effective learning as they were based on conventional teaching methods. The teachers are not using interactive practices. Moreover, they are not fully sensitized to the evaluation techniques, which are essential to be used during teaching practices.<sup>43</sup>

Presently, FDE's training programs are donor driven with no formal Training Need Assessment [TNA]. Moreover, there is no training follow up or training evaluation mechanism in place. A formal CPD model is lacking in the system. PMERP goal is to revamp the current training program by institutionalizing CPD and introducing smart school program to update skills and knowledge of teachers, to enable them to create student centered learning environment and to link it with appraisal and promotion system. At the completion of phase-1 & II (2016-17), 2100 teachers would have undergone quality and innovative trainings to promote interactive learning in the classes.<sup>44</sup> The focus of PMERP on CPD warrants discussion in detail, which will give an insight into the difference between the previous training programs with smart and intensive teachers training programs initiated by PMU for in-service teachers. These include:

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<sup>43</sup> Gujjar, Aijaz Ahmed, Bushra Naoreen, Saifullah Saifi, and Muhammad Jamil Bajwa. "Teaching practice: Problems and issues in Pakistan." *International Online Journal of Educational Sciences* 2, no. 2 (2010): 339-361.

<sup>44</sup> In-House Continuous Professional Development (CPD), Concept Paper, (2015)

➤ *Inception Training Course*

Encompasses the following:

- Focus on teaching strategies / techniques along with designing of different activities.
- Strategies involving group discussion / quizzes and presentations.
- Development and utilization of low cost and no cost teaching and learning resources / materials.
- Effective management of class rooms along with multiple usage of learning spaces.
- Identification and management of slow and active learners and techniques to manage students behavior issues.

➤ *Foundation Training*

The main thrust of the training is as under:

- Time tested methodologies, type of resources, time management, interactive learning and use of ICT.
- Effective teaching strategies, i.e discussion, questioning, brain storming, role playing, group work, projects, case studies, cognitive mapping and simulation.
- Lesson Planning, Assessment Methods based on ability, skill, performance and potential.
- Challenges faced by teachers / students and their solutions.
- Identification of formative and summative Assessments.

➤ *Training Workshops on English Language Development [ELD]*

The main objectives of the training workshops are as follows:

- Developing different strategies and techniques to improve English language, reading and speaking skills.

- Using English as a medium to effectively communicate with others with focus on role playing, group work, debate, short assignment etc. The purpose is to familiarize the teachers about the new concepts and sharpen their skills.

➤ *Information Communication Technology (ICT)*

The significance on ICT in education training is pivotal. ICT is a general term that describes any technology that helps to manage and communicate information in view of the fast and emerging technological changes. Hence, ICT use is a cross cutting theme in all the above trainings with focus on the following:

- Identifying the advantages of use of ICT in teaching and learning.
- Familiarizing the teachers about the ICT tools in the use of modern teaching techniques.

**3. *Restructuring of Federal Directorate of Education for Improved Governance and Strengthening Islamabad Capital Territory (ICT) Schools/ Colleges at the Field Level***

Structural and institutional changes at FDE are the sine quo non to the effectiveness, sustainability and success of the program. Project Management Unit (PMU) has planned to outsource the work to a selected firm after observing Government rules/regulations to re-visit the organizational structure of FDE. The firm will be tasked to:

- Review/evaluate the existing operating structure and strength, with focus on performance driven culture, clear reporting line, empowered decision making and clearly defined responsibility and accountability matrices.
- Man power/rationalization/right sizing with job description and key performance indicators (KPI) for each position.
- Strengthening of Area Education Officers (AEO) teachers and school heads.

- Developing of guidelines / framework for allocation of workload to teaching staff in schools.
- Strengthening of School Management Committees (SMCs) along with uniform guidelines and constitution.
- Study of Financial and legal aspects of restructuring along with seeking approvals from the relevant forums.

Federal Directorate of Education (FDE) established in 1967, is the official administrative and professional custodian of 422 Institutions from Prep to Post Graduate Level in the Islamabad Capital Territory (ICT). It's functions *interalia* include effective monitoring of the institutions provision of infrastructural activities, in service training for teachers and managers of all levels. In addition, FDE is responsible for ensuring merit oriented policy at schools and college levels, including implementation of the policies/guidelines of CADD / Line Ministry.

Unfortunately, the performance of FDE has been uninspiring and lackadaisical, without significant output at the Federal level. This is depicted by ramshackled buildings and infrastructure of ICT schools. Moreover the training programs held by FDE were donor driven marked by absence of CPD. Hence, structural changes at the FDE are the key to success of PMERP.

#### **4. *Enhanced Role of Area Education Offices [AEO]***

Presently, AEO is overall incharge for assigned cluster of schools in all aspects in ICT rural and urban areas. The program endeavors to enhance and strengthen the role of AEO in planning, management, co-ordination, school development, continuous professional development, monitoring, administration, accounts and reporting to different channels in the FDE & CADD. The guidelines for this much needed reform have been developed by the Project Management Unit (PMU) of PMERP, which are under submission to the Government for approval.

## ***5. Allocation of Workload for Teaching Staff in Schools***

Unfortunately, FDE had not developed any guidelines/framework for allocating work load to teaching staff in the schools. Whimsical allocation of workload to teachers was prevalent in schools. There was no standardized system in the schools, nor was there any uniformity in time allocation and weightage to different subjects at different grades. Under the PMERP, detailed guidelines have been developed based on subject wise allocation, work load, staffing, class size, student strength and student teacher ratio. These guidelines are being implemented/approved in letter and spirit.

## ***6. School Management Committees [SMCs]***

SMCs have been given immense importance in the Free and Compulsory Act 2012 which ordains that every school shall constitute a school management committee for a period not less than two academic years. It's composition includes a chairperson (Head of Institute, President and Finance Secretary to be elected by parents/guardians, General Secretary to be nominated to be teaching faculty, and three executive members to be elected by parents/guardians.

Multi-dimensional functions of school management committee includes participation in the process of annual infrastructure development planning, mobilization of financial resources, monitoring of grant/aids, identification of out of schools children and drop outs with in the neighborhoods and endeavors to bring them back to school. Other functions also include supervision of all development activities and trainings, public private partnership, audit and reporting to AEO's on a prescribed format. Despite the powers given to SMC's, there were no rules to elaborate and streamline their functions. The PMU of PMERP has developed a constitution and rules for SMCs which are under submission for approval of the government.

## ***7. Introduction of Montessori Classes***

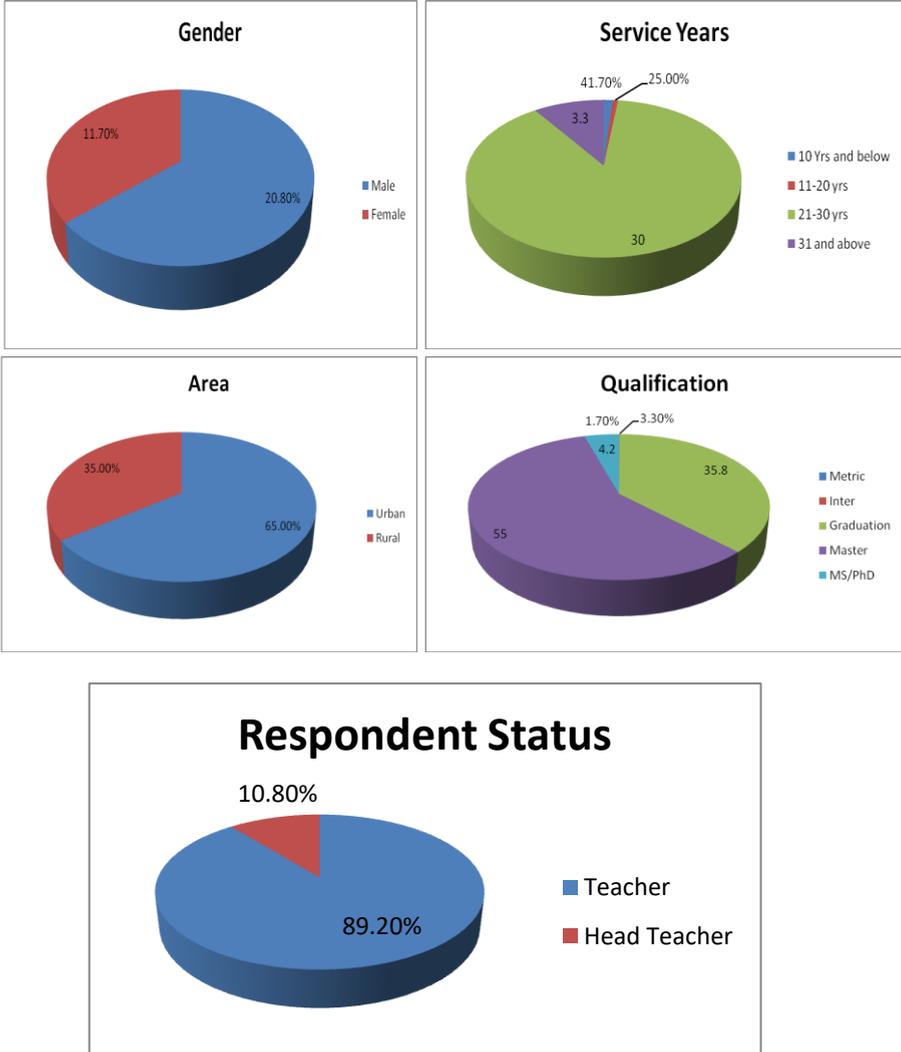
Introduction of Montessori classes have been launched in twelve schools of ICT as a pilot program in collaboration with the private sector, to promote early childhood education and liaison with the private sector and NGOs.

### **Quantifiable Output of the Project**

- Increase in enrolment in the institutions, due to student's access.
- Decrease in drop outs as a result of secure physical environment.
- Increase in pass percentage and GPA.
- Quality infrastructure and State of the art physical educational infrastructure.
- Provision of 200 buses for pick & drop to facilitate the students especially in the rural areas to access the schools.

### III. FINDINGS AND ANALYSIS

#### Demographic Data of Institutions with PMERP's Interventions



**Table 6: Result of Data Obtained from Schools with PMERP's Interventions**

Statement	Disagree		Neutral		Agree	
	F	%	F	%	f	%
Q.1 PMERP is very important for schools up gradation and improved general environment.	3	2.5	4	3.3	113	94.2
Q.2 After the intervention through this program school's enrollment increased.	3	2.5	13	10.8	104	86.7
Q.3 The school staff is satisfied with this intervention and their output was productive.	9	7.5	20	16.7	91	75.8
Q.4 The students' motivational level for learning increased due to this program.	7	5.8	8	6.7	105	87.5
Q.5 PMERP should be introduced in all educational institutions located in ICT.	4	3.3	8	6.7	108	90
Q.6 The parents / guardians are satisfied about PMERP's interventions.	8	6.7	22	18.3	90	75
Q.7 Teachers and students relationship has a positive impact as a result of this program.	11	9.2	14	11.7	95	79.2
Q.8 Learning achievements of students increased after these interventions.	9	7.5	16	13.3	95	79.2
Q.9 Students' punctuality and regularity improved due to this program.	11	9.2	19	15.8	90	75
Q.10 This program has a very positive impact on students' moral development.	8	6.6	12	10.0	100	83.3
Q.11 Teacher training under this program is relevant and productive.	11	9.2	13	10.8	96	80
Q.12 Monitoring through Monitoring and Evaluation system has a positive impact towards making schools productive.	11	9.2	15	12.5	94	78.4

Q.13	Transport facility for students under PMERP increased students motivational level.	20	16.7	24	20	76	62.8
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### Data Analysis of Schools with PMERP’s Interventions

- i. Significantly, majority i.e 94.2% of the respondents found PMERP interventions vital for overall school up gradation and Provision of missing facilities. During the visit of the schools the empirical evidence also reinforced the opinion furnished by teachers and students. As highlighted in the literature review, researchers have found that school environment has a significant impact on students learning, growth, emotional and ethical development.
- ii. It is endorsed by 86.7% respondents that PMERP’s interventions i.e up gradation of schools and improved competencies of teachers had a profound impact on the enrollment. The data obtained from 12 schools in which PMERP’s interventions were made, confirm this finding.
- iii. 75.8% teachers expressed satisfaction with these interventions and contended that these holistic reforms had a positive impact on the learning outcomes of the students. This fortifies the need for extension of PMERP to all public educational institutions located in ICT.
- iv. It was affirmed by 87.5% of the respondents that the students’ motivational level for learning significantly increased due to PMERP. Psychologists and educators have also highlighted that the enabling environment greatly effects student motivation.<sup>45</sup>
- v. Majority of respondents [90%] were of the view that long awaited interventions under PMERP are a harbinger for fruitful changes in their institutions. As a result of which

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<sup>45</sup> Urdan, Tim, and Erin Schoenfelder. “Classroom effects on student motivation: Goal structures, social relationships, and competence beliefs.” *Journal of School Psychology* 44, no. 5 (2006): 331-349.

enrollment, access, and retention of students may register an increase in the new academic session.

- vi. The majority of parents/guardians were satisfied with PMERP's multifaceted interventions particularly with respect to general uplift of schools. The need for such holistic reforms was highlighted by the national education policy 2009, which calls for a "paradigmatic shift" in policies, which is evident through PMERP.
- vii. There was a positive impact on teacher/student relationship as a result of PMERP, due to the improved teacher competencies and provision of missing facilities. This is also supported by research on success of Punjab Education Sector Reforms with multidimensional interventions.<sup>46</sup>
- viii. The learning achievements of students registered an increase after PMERP's interventions as endorsed by 79.2% of the respondents. While 7.5% simply disagreed because of the fact that it was too early to gauge the learning achievements of students as the program has been recently piloted. Visit to the schools depicted that the achievements of the students during academic session 2015-16 and 2016-17 showed encouraging result. Likewise both primary level and Centralized Examination results revealed an increased pass percentage.
- ix. 75% of respondents were of the view that students' punctuality and regularity improved due to PMERP interventions, while 9.2% of respondents did not agree with this contention, as it was felt that majority of students came from adjacent neighborhoods which made their access to schools comparatively easy. Research also reveals that punctuality and regularity is a gateway to success, it enhances students' efficiency in pursuit of their academic career. Resultantly student is able to complete his

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<sup>46</sup> State Bank of Pakistan, Annual Report, (2006).

assignments timely and manages to do well in examinations.<sup>47</sup>

- x. 83.3% of respondents were of the view that PMERP had a positive impact on students' moral development, while 6.6% did not agree with this contention. Research has identified that since children spent most of their time in school, congenial school environment and culture has a great impact on students' moral development. Moreover, the ambiance of the school, its atmosphere and positive interaction with teachers and peers effects their moral development and productivity.<sup>48</sup> Both National Education Policy 2009 and Vision 2020-25 highlights the importance of moral development of students along with their academic performance.
- xi. Teacher training under PMERP was found to be relevant and fruitful as opined by 80% of the respondents. This could be attributed to the fact that ICT school teachers had already undergone trainings under various donor driven programs like Reading Project (USAID), CIDA Project (Canadian), JICA, etc. The training under PMERP introduced them to new teaching methodologies. Education Policy 2009 also flags the need for quality teachers training and enhanced competencies pivotal for the education system. Whereas the disagreement of 9.2% was due to the fact that most of the teachers have already been through extensive training programs, and the smart trainings under PMERPs teaching methodologies i.e role playing, essay writing etc cannot be practically applied in a class of 60-70 students, this limitation was also highlighted during visits to schools.
- xii. 78.4% of respondents agreed that monitoring and evaluation systems had a positive effect on the general performance of the schools. A further study shows that evaluation is vital for accessing the schools and the programs continuous

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<sup>47</sup> Vikash Pathak, Article on punctuality and regularity, (2013)

<sup>48</sup> Deal, Terrence E., and Kent D. Peterson. *Shaping school culture*. John Wiley & Sons, (2016).

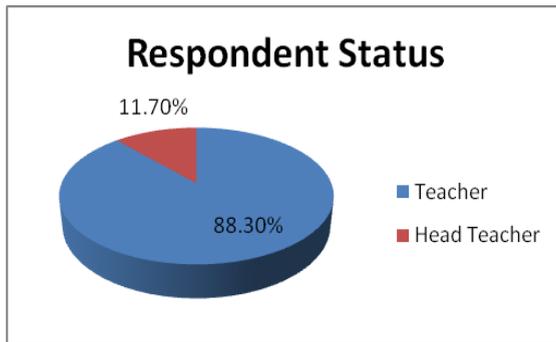
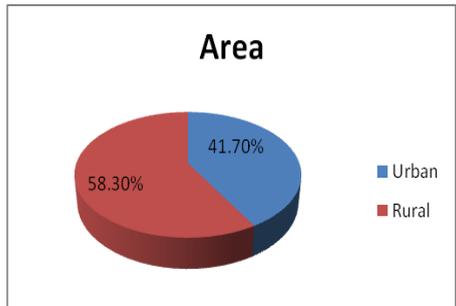
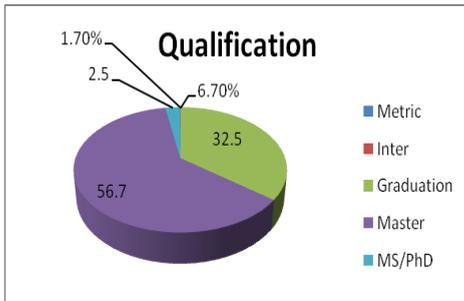
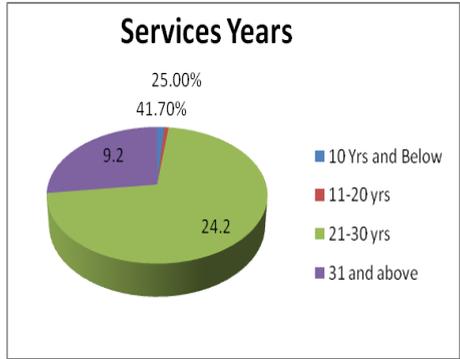
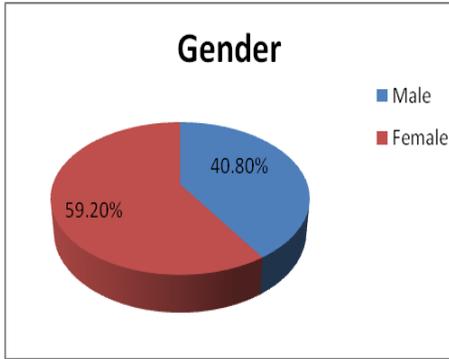
improvement and for taking corrective measure accordingly.<sup>49</sup> However, 9.2% of the respondents have disagreed with the implementation of monitoring and evaluation system in school presumably because of avoiding accountability for their assigned tasks. Pertinently, in the absence of proper monitoring and evaluation system a school cannot achieve its desired educational objectives.

- xiii. Transport facility for students under PMERP increased students motivational level and their attendance in schools, as responded by 62.8% participants. However, 16.7% respondents did not agree due to the fact that all the schools have not been provided with the transport facility under the pilot PMERP. Moreover, the schools in which this facility has been provided do not have the budget for the petrol charges, and necessary manpower i.e driver/conductor, which has resulted in grounding of these buses. This fact was endorsed during the school visits during which the school heads while appreciating the provision of buses expressed this concern, requiring immediate attention of government authorities.

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<sup>49</sup> Victorian government curriculum, 2014.

## Demographic Data of Institutions without PMERP's Interventions



**Table 7: Result of Data Obtained from Schools without PMERP's Interventions**

Statement	Disagree		Neutral		Agree	
	f	%	f	%	f	%
Q.1 Do you think your school needs computer lab?	7	5.8	8	6.7	105	87.3
Q.2 Does your school require additional rooms?	12	10	6	5	101	85
Q.3 Does your school need transport facility?	4	10.5	27	22.5	89	74.1
Q.4 Do you think you need further teachers training?	9	14.7	14	11.7	97	80.9
Q.5 Are you satisfied with current enrollment?	17	14.2	25	20.8	78	65.2
Q.6 Does your school require repair work?	3	2.5	35	29.2	82	68.3
Q.7 Are you satisfied with the quality of result in your school?	4	3.3	13	10.8	103	85.9
Q.8 Do you think, motivational level of students in your school is satisfactory?	5	11.3	28	23.3	87	72.5
Q.9 Is there a positive relationship between students and teachers in your school?	3	2.5	7	5.8	110	91.7
Q.10. Is the average attendance of your school satisfactory?	5	4.2	6	5	109	90.9

### **Data Analysis of Schools without PMERP Interventions**

The above mentioned table depicts the results of respondents' from schools where PMERP's interventions have yet to be launched. The details are as under:

- i. The response to statement 1 as mentioned in above table shows that majority 87.3% of the respondents conveyed their requirement for computer labs, while 5.8% disagreed and 6.7% respondents gave neutral response. It is a universally accepted fact that information Communication Technology [ICT] is the potent driving force behind every knowledge-driven economy of the world. There are a number of examples where ICT uses for teaching and learning are found all over the world. Different studies of ICT implementation at school level shows that thinking process of students improved considerably with help of different ICT tools used in classrooms.<sup>50</sup> The respondents who disagreed were of a certain prevalent mindset in Pakistan with lack of motivation to bring any change in teaching and learning practices. Many studies have explored the reasons for not using computers by the instructors in their lessons. It is found that teachers are reluctant to use computers because of lack of skills and teaching experience with ICT. There is lack of support for teachers in using such technology.<sup>51</sup> In the context of Pakistan unfortunately, there is no unified policy at the government level to effectively integrate technology into teaching and learning.
  
- ii. 85% respondents were of the view that they required additional rooms, to cater to the increasing enrollment. The schools with sufficient space required additional rooms for the computer labs and Montessori classes which are being setup under PMERP. Moreover, because of increased student strength and unwieldy number of students in one class, more sections needed to be created. While almost 10% were of the view that did not need any additional classrooms. This is due to the fact that some of the schools in different sectors like

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<sup>50</sup> Mioduser, David, Rafi Nachmias, Avigail Oren, and Orly Lahav. "Web-based learning environments (WBLE): Current implementation and evolving trends." *Journal of Network and Computer Applications* 22, no. 4 (1999): 233-247.

<sup>51</sup> Rosen, Larry D., and Michelle M. Weil. "Computer availability, computer experience and technophobia among public school teachers." *Computers in human behaviour* 11, no. 1 (1995): 9-31.

Nilore, Ternol, Barakhou did not have any space to expand. During the visit to schools it was explained that those with insufficient rooms and lack of space may be relocated or alternately the government may hire buildings in vicinity if more enrollment is desired in the light of article 25(A) of Constitution of Pakistan.

- iii. 74.1% respondents opined that they needed transport facility, whereas 10.5% disagreed and 22.5% remained neutral. This is due to the fact that some of the schools were situated in narrow lanes in areas where buses would not be viable. In most of the schools in areas like Jagiot and Mallot, enrolled students were from the nearby vicinity, where students could access schools easily. Moreover, some schools had no parking place for buses and after having learnt about the non-provision of POL for the transport, it was not deemed as a feasible proposition. Nevertheless, during discussion most of the heads highlighted that instead of a bus van should be provided for the staff as they had to invariably come from longer distances.
- iv. Almost 81% required teacher training in their respective subjects, whereas 14.7% were satisfied with their current status. There is a plethora of research on the importance of teachers training for teacher education and students learning e.g study from Indonesia shows that teachers' professional development adds a positive impact on students learning performance. Further, a study based on the analysis of teachers training policies in 25 countries highlights the teacher quality is most important factor in an education system.<sup>52</sup> The reason for respondents disagreeing with further teachers training is based on the fact that most of them have already undergone trainings under different donor driven programs. It also may be assumed that they desire to stick to the traditional teaching styles for which they do not find any need for further training.

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<sup>52</sup> The Organisation for Economic Cooperation and Development (OECD) Annual Report 2005.

- v. More than 65.2% of respondents were of the view that they have sufficient enrollment in their schools, whereas 35% were dissatisfied with the current trend of students' enrollment. Factors which effect student enrollment are well documented by various researchers, some of them are generic e.g, geographical setting [urban, rural], distance from home, schools physical facilities and maintenance, academic reputation including skilled teachers and their performance.<sup>53</sup> Those who primarily disagreed felt that the schools did not have capacity for further intake of students due to their size and inadequate teaching staff.
- vi. 68.3% confirmed that their school required repair work, including civil works and furniture repair. Annual Status of Education Report 2015 portrays a gloomy picture of the status of physical facilities in ICT schools. It points out that 50% of primary schools established in year 1982 are without boundary walls, with dilapidated buildings, 34% lack usable water facility and 84% are without libraries.
- vii. 86% of the respondents were found satisfied with their external and internal examination results, because of the commitment of teachers and heads, monitoring of schools, and recognition through letter of appreciation for the school by FDE. Regrettably, the achievements of the schools did not have any bearings on the promotion of teachers and heads.
- viii. More than 72.5% respondents were satisfied with the motivational level of students for learning. While 11.3% were dissatisfied with the student's motivational level. Researchers are of the view that motivation is among the most powerful determinants of students' success or failure in schools.<sup>54</sup> In this context, the overall school environment, usage of effective teaching methods with educational aids

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<sup>53</sup> Noel-Levitz, *New student enrollment and retention outcomes at four-year and two-year institutions*. Coralville, Iowa: Noel-Levitz. Retrieved from [www.noellevitz.com/BenchmarkReports](http://www.noellevitz.com/BenchmarkReports). (2012).

<sup>54</sup> Hidi, Suzanne, and Judith M. Harackiewicz. "Motivating the academically unmotivated: A critical issue for the 21st century." *Review of Educational Research* 70, No. 2 (2000): 151-179.

are instrumental in creating motivation among students for learning.<sup>55</sup> The motivation of the students can be attributed to government reforms in the education system over a number of years to achieve its national and international commitments. The raised qualification of teachers at the entry level (B.Ed for teachers of elementary schools and M.Ed for teachers of secondary schools) has improved the standard of teaching. Moreover, the CPD under a number of donor driven programs enriched their skills to deal with psychological aspect of students. PMERP in its continuous professional development programs is focusing on the need for motivational techniques for the students.

- ix. The result signifies that 91.7% of respondents were highly satisfied with the present scenario of pupil-teacher relationship. While 2.5% disagreed. It is a universally acknowledged fact that teachers play a significant role to support students' academic and social development at all levels.<sup>56</sup> Positive bonds between students and teachers support their learning and make them secure to take on academic challenges and enhances their socio-emotional development.<sup>57</sup> Students in low income, high poverty urban schools benefit more from positive teacher-student relationship because of risks associated with poverty i.e. high rates of school dropouts, lower rate of enrollment, low efficacy and low self-confidence.<sup>58</sup> Since a large number of ICT public schools are in low income areas, hence teacher-

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<sup>55</sup> Harmer, Jeremy. "Taming the big 'I': Teacher performance and student satisfaction." *ELT Journal* 49, No. 4 (1995): 337-345.

<sup>56</sup> Baker, Jean A., Sycarah Grant, and Larissa Morlock. "The teacher-student relationship as a developmental context for children with internalizing or externalizing behavior problems." *School Psychology Quarterly* 23, No. 1 (2008).

<sup>57</sup> Hamre, Bridget K., and Robert C. Pianta. "Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade." *Child Development* 72, No. 2 (2001): 625-638.

<sup>58</sup> Murray, Christopher, and Kimber Malmgren. "Implementing a teacher-student relationship program in a high-poverty urban school: Effects on social, emotional, and academic adjustment and lessons learned." *Journal of School Psychology* 43, No. 2 (2005): 137-152.

pupil relationship assumes more significance in the context of students outputs and academic achievements. Focus of government and international agencies on teachers training brought a change in the outlook of teachers and has created a positive bonding between students and teachers. Smart trainings under PMERP especially focus on such relevant themes.

- x. 90.9% respondents contended that students' attendance in their schools was satisfactory, while 4.2% did not agree with this contention. Research has proved that there is a high correlation between school attendance and academic performance, while absence from school is often the greatest cause of poor performance and achievement.<sup>59</sup> In the context of ICT, the prime reason for satisfactory attendance in schools is that students belong to the same sector and live in proximity to the schools. Moreover, Article (25 A) of the Constitution pre-requisites free and compulsory primary education which has given impetus to the lower income parents to send their children to school, as the awareness for education increases through media and NGOs. The respondents who have disagreed with the above statement were of the view that parents being illiterate and poor do not take school education seriously and pull out their children during school hours for household chores.

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<sup>59</sup> Purdie, Nola, and Sarah Buckley. *"School attendance and retention of indigenous Australian students."* (2010).

## **IV. CONCLUSION AND RECOMMENDATIONS**

### **Conclusion**

Cognizant of the role of education in socio-economic and human development government of Pakistan has been striving for achieving a universally accessible, egalitarian education system in pursuance its constitutional, national and international commitment. In the past, there have been number of attempts through various plans and policies which have failed to reform the ailing education sector.

This study aimed at examining the nature, scope, efficacy and effectiveness of PMERP launched in 2016, for revamping and reforming 422 public schools of ICT which PMERP focused on improved infrastructure facilities, renovation and provision of missing facilities. The main objective was to enhance enrollment, access, quality, improved standards of teaching and learning through continuous professional development, monitoring, evaluation, institutional changes and public private partnership.

The main focus of the study was to determine and gauge the success of PMERP after the completion of its first phase in 2016, within the ambit of above mentioned indicators. As elaborated in the previous chapters, PMERP is a three-phased three years project being implemented in ICT through multi-dimensional interventions. The pilot phase targeting 22 schools having been completed, in the second phase (2017-18) PMERP will be extended to 200 educational institutions at the cost of Rs.274.00M, while in the third phase (2018-19) it will reach out to 200 remaining institutions.

In pursuance of the objective of the study, two groups i.e. experimental group and controlled group were formulated. The former comprised of 12 institutions in which PMERP interventions have been completed and the later included 12 institutions in which the interventions are yet to be made. The data of both these groups were analyzed within the framework elaborated above, to determine the effectiveness and need of PMERP. The data was collected from 24 institutions through structured questionnaire and interviews of teachers and head teachers.

The analysis of the data reveals that the up-gradation of dilapidated school buildings, provision of missing facilities and quality trainings had a profound impact on access, enrollment, punctuality, and regularity of students. In addition, holistic teacher trainings under PMERP had a positive impact on learning outcomes, motivation, ethical and moral development of the students. Therefore, 90% of the respondents desired that PMERP should be extended in all educational institutions.

The interviews with the teachers and head teachers also endorsed that program like PMERP was a compelling need for educational institutions of ICT. However, during the interviews, there was a common complaint about the quality of civil works and furniture provided under PMERP. While lauding the provision of buses and computers to the schools, there was a common concern about the lack of sanctioned budget for POL, absence of drivers, non-availability of designated rooms and computer teachers, which is likely to undermine the positive impact of this important intervention.

During discussions, the respondents extolled the innovative step of the government in establishing Montessori classes in the public schools. However, the absence of Montessori trained teachers and shifting of extra load of the primary school teachers was considered as a constraining factor.

In view of the above, the government requires taking corrective measures during the implementation of the second phase of PMERP (2017-18) for its sustainability. In a nutshell, this study finds that long-awaited PMERP's interventions were absolutely essential for uplift of the neglected schools of ICT. The need for civil works, renovation, extensive repairs, additional rooms, computer labs, buses and provision of missing facilities was highlighted by respondents. In order to further raise the standards of education and enhance their professional skills, need for further training was also emphasized by majority of teachers. During the interviews, it was articulated that the quality of civil works and furniture items should be strictly monitored. Moreover, a separate budget for POL should be created before delivery of buses to the remaining schools. There was a demand for mini vans for teachers from schools with difficult

and narrow approach, since most of the teachers commute from far of locations.

Majority of the respondents expressed satisfaction at the enrollment, attendance, quality of results and motivational level of students. During discussion it emerged that trainings over a number of years has impacted on the teaching skills and learning outcomes of the students. Nevertheless, it was reiterated that PMERP's interventions will serve as a catalyst for reforming the previously neglected schools in ICT and would be a harbinger for change in the overall education sector across the country.

### **Recommendations**

1. Holistic Education Sector Reforms like PMERP can play a critical role in transforming educational landscape and outcomes of learning. PMERP is guided by a clear goal and vision, but is not being implemented through a coherent planning and monitoring process due to the involvement and sharing of responsibilities by different actors.
2. The PMU of PMERP is headed by an experienced education professional, and comprises of a small dedicated team which ostensibly is not involved in implementation. As per PC-1, PMU is responsible to monitor and ensure the quality of procurement and delivery of the physical assets to educational institutions. However, the envisaged role and initiative of the team is impeded by bureaucratic red-tapism in the CADD, status quo oriented bureaucrats opposed to structural changes, as well as other quality determinants. Lack of harmony among different elements and units implementing the same policy are irritants which may lead to eventual unsuccessful attempt to the reform. Hence, unless the reforms are complimented by structural changes and changed mindset, they are not likely to have the desired outcomes.
3. Both financial and technical resources are key factors in contributing towards the proper implementation of any policy. Unfortunately, the government spending on

education is only 2% of the GDP with an even lower rate of actual expenditure [1.5%] of GDP which impacts on the overall education sector.

4. The program lacks clarity regarding the resources to sustain these interventions, e.g. the provision of recurrent budget for maintaining the renovated structure and availability of budget line to sustain the tempo of CPD on regular basis.
5. Another key indicator of success of PMERP is decentralization of some of the key functions and responsibilities of FDE to lower level of administration i.e. AEOs and Principals. During the interviews, it was highlighted that Principals/Heads were not consulted before withdrawal/relocation of teachers from their schools and did not have any autonomy for taking administrative decisions in respect of teaching/non-teaching staff. In the past, due to centralization, education policies failed to imbibe subtleties of education initiatives at the grass-root level. It may be recapitulated that one of the objectives of PMERP is restructuring of FDE and decentralization of power. If these structural changes are implemented by the government, it is likely to ensure the success of the program. This remains a huge challenge for PMERP implementers.
6. The issue of poor and improper implementation of PMERP could lead to its prospective failure. The failures of SAP-I and II, and Sindh government's Primary Education Program may be cited as examples. Various five year plans have acknowledged that on most occasions' policies fail at the implementation level.
7. Lack of proper accountability mechanism, excessive transfers and corruption have already been documented as serious governance issue by the World Bank Report 1999. Hence, there is a need to increase accountability in the education system for the success of any program.
8. More effective public private partnership would be an added value to the program. A beginning has been made by

PMERP by opening Montessori classes where furniture and learning resources have been provided by selected private sectors schools, such partnerships needs to be scaled up.

9. The SMCs established as a result of Article (25A) of the Constitution are presently non-functional. There is a need to strengthen them to their due role in order to mainstream community participation in the education system. Most of the SMCs are unaware of their designated roles and responsibilities. PMU of PMERP along with FDE should organize workshops in the four sectors of ICT to give proper understanding to the parents/guardians about their role in order to expedite the formation of enlightened SMC's in all the schools.

<b>Appendix-I</b>	
<b>Visit of schools with PMERP's Interventions</b>	
1.	Islamabad Model School for Girls (I-VIII), Mohrian
2.	Islamabad Model School for Boys (I-V), Malot
3.	Islamabad Model School for Boys (I-X), KHANA DAK
4.	IMSG( I-VIII), SOHAN
5.	Islamabad Model School for Boys (I-V), Tarnaul
6.	Islamabad Model School for Girls, Bhadana Kalan
7.	Islamabad Model School for Girls, G-6/1-4
8.	Islamabad Model School for Girls (I-VIII), F-7/1, IBD
9.	Islamabad Model School (I-V), F-6/1, Islamabad
10.	Islamabad Model School for Girls (I-V), G-10/1, Islamabad
11.	Islamabad Model School , F-10/4, Islamabad
12.	Islamabad Model School for Boys (I-X), F-8/3, Islamabad
<b>Visit of schools without PMERP's Intervention</b>	
1	Islamabad Model School (I-V) , F-6/4, Islamabad
2	Islamabad Model School (I-V), F-6/3, Islamabad
3	Islamabad Model School (V1-X), F-6/2, Islamabad
4	Islamabad Model School for Boys , Sohan
5	Islamabad Model School for Girls (I-X), Shakrial
6	Islamabad Model School for Boys (I-X), Bhaddan Kalan
7	Islamabad Model School for Boys (I-X), Naugazi Ternole
8	Islamabad Model School for Girls (I-X), Mallot
9	Islamabad Model School for Boys (V1-X), Kurri
10	Islamabad Model School for Boys (I-V),Dhoke Syedan
11	Islamabad Model School for Girls (I-X) , Saidpur
12	Islamabad Model School for Boys (I-X), Moriah

<b>Appendix-II</b>	
1.	Islamabad Model School for Girls (I-VIII), Kot Hathial
2.	Islamabad Model School for Girls (I-VIII), Mohrian
3.	Islamabad Model School for Boys (I-V), Talhar
4.	Islamabad Model School for Boys (I-V), Malot
5.	Islamabad Model School for Boys( I-X ), JAGIOT
6.	Islamabad Model School (I-V), HERNO
7.	Islamabad Model School for Boys ( I-X), KIRPA
8.	Islamabad Model School for Girls (I-VIII), Bhimber Trar
9.	Islamabad Model School for Girls (I-X), Nara Syedan
10.	Islamabad Model School for Girls (I-X), Humak
11.	Islamabad Model School for Boys( I-X), Khana Dak
12.	Islamabad Model School for Girls (I-VIII), Sohan
13.	Islamabad Model School for Boys (I-V), Ternaol
14.	Islamabad Model School for Girls , Bhadana Kalan
15.	Islamabad Model School for Girls, G-6/1-4, Islamabad
16.	Islamabad Model School for Girls (I-VIII), F-7/1, Islamabad
17.	Islamabad Model School (I-V), F-6/1, Islamabad
18.	Islamabad Model School (I-V), G-10/1, Islamabad
19.	Islamabad Model School (I-V) , F-10/4, Islamabad
20.	Islamabad Model School for Girls (VI-X) I-10/4, Islamabad
21.	Islamabad Model School for Boys (I-X), F-8/3, Islamabad



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