TEACHER EDUCATION POLICIES AND PROGRAMS IN PAKISTAN: THE GROWTH OF MARKET APPROACHES AND THEIR IMPACT ON THE IMPLEMENTATION AND THE EFFECTIVENESS OF TRADITIONAL TEACHER EDUCATION PROGRAMS

By

Fida Hussain Chang

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

Curriculum, Instruction, and Teacher Education - Doctor of Philosophy

2014

ABSTRACT

TEACHER EDUCATION POLICIES AND PROGRAMS IN PAKISTAN: THE GROWTH OF MARKET APPROACHES AND THEIR IMPACT ON THE IMPLEMENTATION AND THE EFFECTIVENESS OF TRADITIONAL TEACHER EDUCATION PROGRAMS

By

Fida Hussain Chang

Two significant effects of globalization around the world are the decentralization and liberalization of systems, including education services. In 2000, the Pakistani Government brought major higher education liberalization and expansion reforms by encouraging market approaches based on self-financed programs. These approaches have been particularly important in the area of teacher education and development. The Pakistani Government data reports (AEPAM Islamabad) on education show vast growth in market-model off-campus (open and distance) post-baccalaureate teacher education programs in the last fifteen years. Many academics and scholars have criticized traditional off-campus programs for their low quality; new policy reforms in 2009, with the support of USAID, initiated the four-year honors program, with the intention of phasing out all traditional programs by 2018. However, the new policy still allows traditional off-campus market-model programs to be offered. This important policy reform juncture warrants empirical research on the effectiveness of traditional programs to inform current and future policies. Thus, this study focused on assessing the worth of traditional and off-campus programs, and the effects of market approaches, on the implementation of traditional post-baccalaureate teacher education programs offered by public institutions in a southern province of Pakistan.

This study included seven regular and three off-campus programs in eight public teacher education institutions. Following a mixed-methods approach, the researcher collected data from survey questionnaires administered to students and faculty, interviews of senior faculty and department chairs, and document analysis of program and policy documents. The analysis of the data yielded descriptive quantitative indicators of program implementation, and thematic qualitative descriptions of the effects of market approaches on teacher education.

Findings show a disproportionately high enrollment in market-model off-campus teacher education programs in relation to a significantly small demand for new teachers in the system. Program implementation indicators of quality are low for both regular and off-campus programs. Participants' composite average scores in six categories of opportunities to learn to teach indicate low levels of program performance in these areas. In addition, faculty viewed the market takeover of teacher education as detrimental to teacher education program quality, including a watering down of program requirements and a decrease in the credibility of teacher education certificates in the school system. In short, they concluded that teacher education is now viewed as a commodity, and it is indeed a profitable business for many opportunistic entities.

Policy recommendations include a call for regulating teacher education markets, collecting and publishing evidence, strengthening professionalism, and conducting further research on policy effects for sustainable teacher education reforms in Pakistan.

This work is dedicated to my family – my father, my mother, my sisters, my brothers, and my lovely children (Kainat, Aqsa, Sana, Mohsin, and Danish) – and all the peace-loving human beings around the world.

ACKNOWLEDGEMENTS

I am extremely thankful to my children, to my parents, and to my extended family, who have been supporting me unconditionally throughout my program. My special thanks to my brothers and sisters and my parents, who have patiently looked after my children. And thanks to my children for keeping my spirits high by skyping almost every day, and to my dad for calling several times a week.

I am also thankful to my friends back in Pakistan, who have passionately given a helping hand, whenever needed, from connecting with research participants to helping in arranging many logistics. Thanks to my friends here is the US, and in other parts of the world, for their moral and social support.

Finally, I extend many thanks to colleagues and supporting staff in the Teacher Education Department, in the College of Education, on the MSU campus, and in the communities in the East Lansing and Lansing area who have been great sources of learning.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

The Pakistani education system in general reflects an ever-changing history, especially since Pakistan is still very young as a nation state. Most of these changes can be tied to policy changes by central government because they were mostly the result of changes of government in Islamabad (Ali, 2012; Bengali, 1999). Although the field of teacher education, as inherited from colonial India, remained static until 1990, it has gone through many changes in the last two decades, as is the case with education in general. It is generally understood that the quality of school education, for the most part, depends on the background of teachers and the school environment. One important component of teachers' learning to teach comes from their teacher education experiences in teacher education institutions (Darling-Hammond & Bartaz, 2007). Therefore, it is important to study how teacher education programs are being implemented, and how, in particular, implementation has been affected by current teacher education policies. Effective implementation of teacher education programs is an important issue in Pakistan in conversations among teacher educators and policy makers, as well as among researchers of teacher education (Pre-STEP/USAID, 2010).

Continuing education reforms and different parallel systems of education in Pakistan reflect the influences of foreign donors and reform organizations; these influences have increased substantially over the last two decades because of globalization. The increased influence of globalization has created a global policy and reform field (Rizvi and Lingard, 2010), in which best education practices and policy reforms are identified in global space, mostly in developed countries, and such practices are transmitted to developing countries through foreign and international donor organizations (Altbach, 2008). In this respect, most of the education reforms

have been foreign funded and tied to the geo-strategic interests of donors in Pakistan (Ahsan, 2005). A significant effect of globalization is demonstrated in the rapid growth of the private sector, which has resulted from privatization and decentralization policies. Figure 1 illustrates the rapid growth of private schools in the last couple of decades in Pakistan. This rapid growth and the strong establishment of the private sector have resulted in market model approaches to education as private institutions function based on output-based paying of services and on the number of students enrolled (Williams, 2007). The marketization of education services has stimulated significant concern among education scholars and policy researchers about the purposes, access, effectiveness, and quality of education.

Figure 1: Increase in Number of Private K-12 Schools in Pakistan by Years
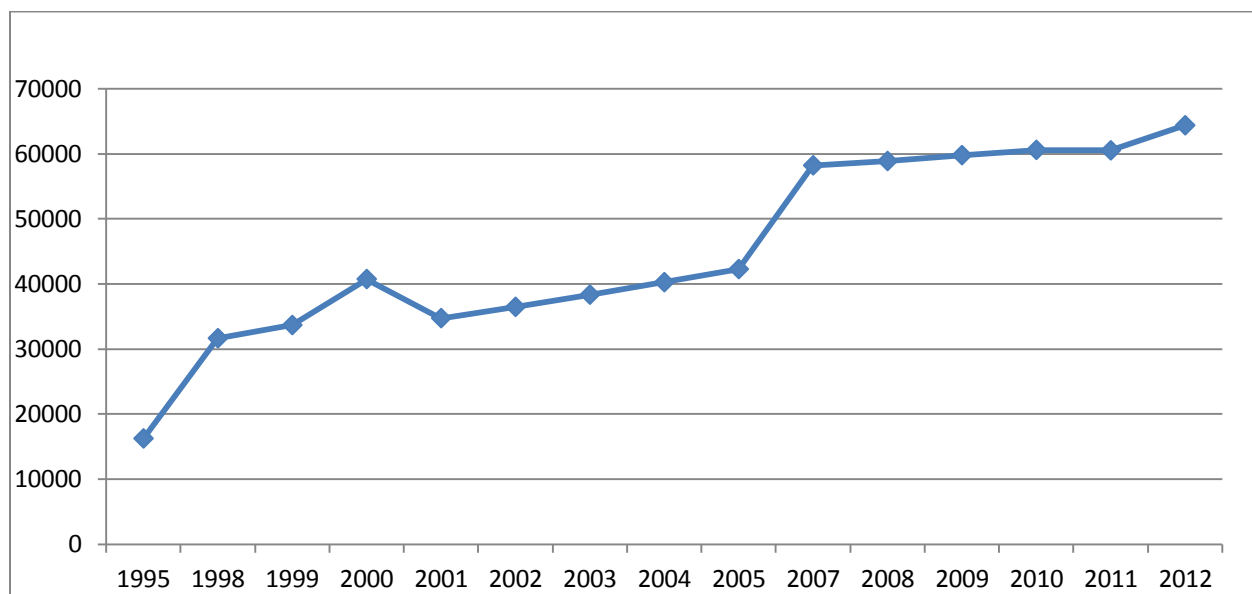
Created by Author; source: AEPAM Islamabad Reports 1995 to 2012

The policy changes influenced by globalization have also led to the development of market-model programs of teacher education in the private and public sectors of Pakistan. In order to decentralize, higher education policies in the early 2000s allowed public and private universities to develop their own programs, in terms of curriculum and mode of offering, within

a loosely defined general outline of curriculum in the education policy of 1998-2010 (Ministry of Education Pakistan, 1998). This change resulted in the rapid growth of market model off-campus teacher education programs based on institution-defined curriculum. The scholarly community (such as Farroq, Al Asmari, & Javid, 2012; Habib, 2010; Halai & Amirali, 2010) strongly criticized the rapid growth of the market-model off-campus programs, particularly in terms of how such a rapid change affected the quality and effectiveness of teacher education programs.

The purpose of this dissertation study was to contribute to these scholarly and policy-based conversations in order to inform teacher education policy makers in reforming the policy and programs. This study was framed by the following research questions.

Over-arching Research Question:

How has Pakistan's market-model policy of offering off-campus secondary teacher education programs in open and distance learning modes by public and private universities impacted the implementation and effectiveness of the long-standing traditional teacher education programs in public institutions of education?

Subsidiary research questions:

1. How is the policy described and rationalized?
2. How has the policy been understood and implemented by institutions of teacher education?
3. What are the benefits and the challenges of allowing the market to operate in the provision of teacher education?
4. What are the administrators' and teacher educators' views about the policy?

Significance of the Study

Recent education policy (National Education Policy, 2009) has recognized problematic issues with the quality of teacher education, and it has proposed phasing out the traditional teacher education programs (offered in two modes: both conventional on-campus and market model off-campus), and replacing them with more a comprehensive four-year post-K12 program (Ministry of Education Government of Pakistan, 2009a). This reform program is largely funded by USAID Mission Pakistan (Pre-STEP/USAID, 2010). The new program has been initiated in different institutions and is in the process of evolving in terms of course curriculum, practicum/internship components, and certification requirements. This policy change, however, has received mixed responses from different stakeholders. For example, many government organizations, educators, education reform organizations, and international donors support these changes, whereas some educators and education administrators oppose the new programs. The present study is significant in this policy environment because it seeks to provide empirical evidence about the effectiveness of the long-standing policy and the resulting traditional teacher education programs, particularly the market-model off-campus programs. Hence, this study could potentially suggest directions for policy revisions and/or additional policy reforms. Moreover, this study adds to the current scholarly discourse on education reform in Pakistan, and, more broadly, internationally in the context of education reforms in developing countries as a whole, which are also affected by globalization-driven policies. Further, this study will suggest more avenues of research to develop a strong pool of empirical evidence about teacher education, in order to make well-informed policy decisions in future.

Timeline of Preliminary Evidence and Problem Statement

Conventional teacher education remained static as one to two year post-academic training programs until the recent initiation of more comprehensive four-year bachelor programs in 2010. The conventional programs include the Primary Certificate of Teaching (post-secondary/higher secondary) for preparing primary teachers, the Certificate of Teaching (post-higher secondary) for preparing middle school teachers, and the Bachelor of Education (post-baccalaureate) for preparing secondary school teachers. Some institutions offer Master of Education programs as post- Bachelor of Education (B. Ed.) programs to prepare educational administrators and teacher educators. The curriculum outline and instructional approaches (mostly lecture-based) are similar in most of the provinces, as all of the programs require the completion of ten courses of three credit hours each (thirty credit hours in total) and, in addition, the practicum/practice-teaching component, which equals six credit hours. However, the content of courses and the evaluation requirements vary across institutions and provinces (UNESCO, 2008). The newly initiated four-year programs are significantly different in terms of entry requirements, curriculum content, and instructional and evaluation approaches.

Historically, all of the conventional teacher education programs were offered as on-campus programs in the face-to-face mode until the late 1970s, when Allama Iqbal Open University Islamabad (a federal public university) began offering a variety of programs as off-campus programs in open and distance learning modes (USAID/UNESCO, 2008). However, the curriculum outline for most of the programs remained the same. Two decades later, influenced by globalization, the national education policy of 1998 to 2010 allowed all institutions to offer programs in open and distance learning modes. Since the off-campus programs were low-cost, many other public and private institutions of teacher education, following the market model

approach, began offering off-campus programs. In the early 2000s, Pakistan's many public sector and private sector universities offered market model off-campus teacher education programs in open and distance learning modes in their respective regions of operation. The universities generated more funds through the off-campus programs because these programs were very low-cost. A typical off-campus program enrolls about 30 to 40 students per instructor, who conducts weekly (on Sundays) short face-to-face sessions to provide instruction about readings. Most of the instructors in the off-campus programs are in-service school teachers, or intermediate college teachers, who have an M. A. or M. Ed. degree, and they are hired on a yearly contract basis. Since instruction in these programs is their part-time job, these instructors agree to work for low salaries. The curriculum is compressed and tailored to facilitate the success of candidates in these programs.

The off-campus programs have been widely criticized by different stakeholders, including teacher educators, administrators of schools, and policy analysts. Most of the criticisms of these programs have pointed out the lack or disappearance of proper instruction, the non-rigorous curriculum, misappropriation of assessment/evaluation, and an absent or low-quality practice teaching component (Faroof, Al Asmari, & Javid, 2012). Teacher educators and policy analysts have criticized these programs on the grounds that there are only a few instructors (senior high school teachers) at a typical off-campus center, and that therefore these centers lack sufficient and competent human technical expertise to cater to the diverse needs of the candidates. Further, face-to-face interaction is very limited; consequently, students lack the experience and richness of discussions, debates, and other critically interactive activities. School administrators have usually complained of the poor preparedness of the graduates from these programs.

Yet despite all the criticism from relevant quarters, these programs have continued and expanded. Even the universities in other specialized fields, such as agricultural universities and business schools, began offering similar programs. Educationists mostly believe that there are two major reasons for the expansion of the off-campus programs: first, these programs effectively attract candidates because of low fees and the ease of completing the program; and, second, universities and institutions, because of using the market model, are able to generate additional funds through these programs (Chang, 2013). However, the expansion of programs to non-teacher education institutions has challenged teacher education institutions, and their struggle to end such programs in many non-teacher education institutions was successful within a few years.

Figure 2: Comparison of Enrollment at Islamabad (AIOU Islamabad) with All Other Teacher Education Institutions in Pakistan by Year
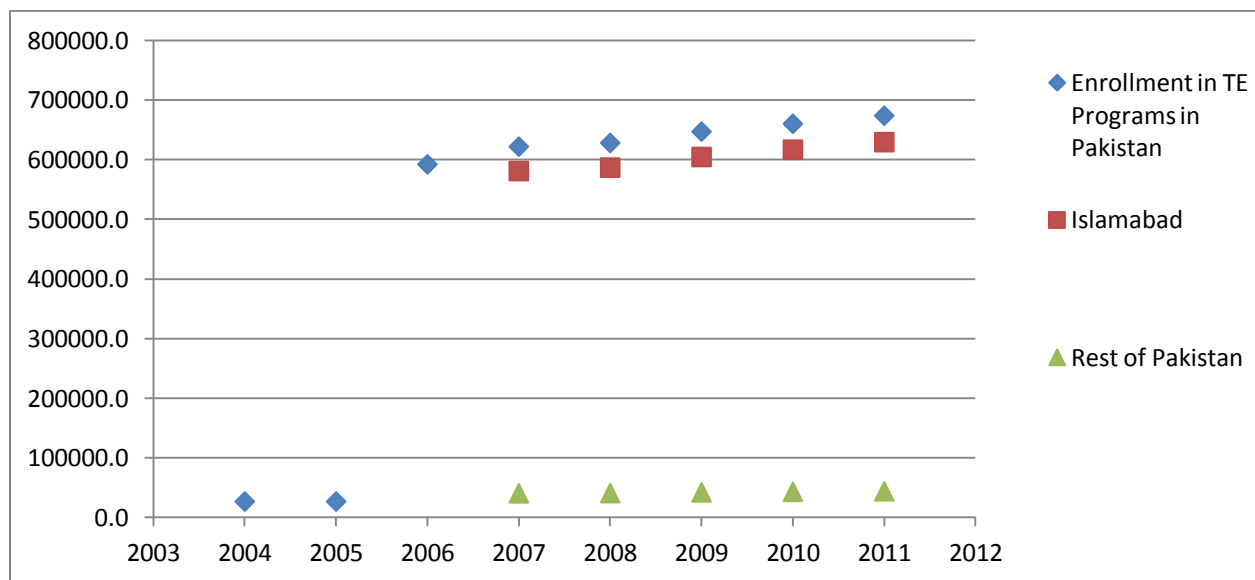
Created by Author, source of data AEPAM reports (2004 – 2011)

AIOU Islamabad immediately capitalized on this victory, claiming it was the most appropriate institution to offer off-campus programs because it has expertise in open and distance learning programs. This, coupled with a government policy of allowing unlimited

enrollment, resulted in disproportionate growth in the enrollment at the AIOU offered off-campus programs in 2007. Figure 2 shows the huge enrollment at AIOU Islamabad.

Many teacher educators believe that the vast expansion of these alternative teacher education programs has highly impacted the functioning and effectiveness of the on-campus teacher education programs offered by public sector teacher education institutions/colleges in Pakistan (Chang, 2014). Since the off-campus programs attract most of the candidates, they have created a challenge for public institutions/colleges of teacher education to obtain sufficient enrollment in their long-standing regular on-campus programs. In response, public institutions of teacher education have opened branches in remote areas of their respective regions, but they still did not have much success in increasing their enrollment, because the off-campus programs offered by other universities are an easier route to get a teaching certificate, by virtue of their being less rigorous. Consequently, the institutions of teacher education began compromising on the implementation of their regular programs (Chang, 2014). Although policy requirements about curriculum, instruction, assessment, apprenticeship, and attendance have remained the same, institutions of teacher education unofficially compromised on the implementation of their programs and policies in order to attract more candidates. Unofficially, attendance requirements were relaxed; instruction became less rigorous; assignments and exams became much easier; and apprenticeships or practice teaching became almost non-existent. Those compromises by the public institutions of teacher education in the implementation of their programs still continue as the universities, particularly AIOU Islamabad, continue offering off-campus programs in the regions covered in this research.

Many teacher educators believe that the situation described above has lowered the overall quality of teacher education programs in Pakistan. The reports by USAID/UNESCO (2008) and

UNESCO (2008) present a thorough analysis of the steadily degrading quality of teacher education in Pakistan. However, some concerned organizations have claimed that some recent policy developments in teacher education and in the recruitment of teachers are targeted to revive the quality of teacher education programs in Pakistan. A few significant policy developments set forth in the National Education Policy 2009 (Ministry of Education Government of Pakistan, 2009a) include the development of national professional standards for teachers (Ministry of Education Government of Pakistan, 2009b), four-year programs of teacher education, the requirement of a bachelor's degree with a B. Ed. for new elementary teachers, and the requirement of a master's degree with a B. Ed. for the appointment of new secondary teachers. The four-year teacher education programs are only being introduced in selected universities and colleges of education, however, and the policy still allows universities to offer off-campus programs in open and distance learning modes. In light of all these reforms and consequent changes, there is a need for empirical evidence about the effectiveness of current teacher education offerings. This is an important time to study how the policy of offering off-campus market model programs has affected the program implementation of the traditional teacher education program.

Organization of the Dissertation

This dissertation consists of six chapters, organized as follows. Chapter 2 presents a detailed review of literature, including an overview of globalization and marketization in Pakistan, and the relevant literature on teacher education, including identification of issues in teacher education, policy initiatives, and emphasis on in-service professional development, quality issues, and distance learning (off-campus) teacher education. Chapter 3 presents an overview of the context of this study – Pakistan. Beginning with an overview of demographics,

the government system, and the economy, this chapter highlights the education systems and teacher education in Pakistan. Chapter 4 presents a detailed account of the methodology of research. Chapter 5 presents the findings and analysis, which consist of three main categories: policy implementation and historical trends in teacher education, implementation of conventional (on-campus and off-campus) teacher education programs, and effects of the policy of allowing the market to operate in the implementation of teacher education programs. Chapter 6 discusses these findings and their implications for policy and further research.

CHAPTER II

LITERATURE REVIEW

This chapter primarily examines the research literature on teacher education in Pakistan. However, in order to situate the analysis in the wider context of globalization, which has led to many significant changes in Pakistan, including the marketization of education services, a brief analysis is first presented on how market approaches in education, particularly in teacher education, have taken root as a result of policy reforms that have been affected by globalization. Following this brief analysis of the effects of globalization on Pakistan in leading to market approaches in education, the second part of this chapter turns to an analysis of the research literature published on issues regarding teacher education programs and institutions in Pakistan.

SECTION 1: GLOBALIZATION AND THE MARKETIZATION OF EDUCATION IN PAKISTAN

As is the case in the rest of the world, policies and systems in Pakistan have been affected by globalization in the last two decades. Martin (2000) described the effects of globalization in this way: "…globalization remains an inexact term for the strong, and perhaps irreversible, changes in the economy, labor force, technologies, communication, cultural patterns, and political alliances that it is imposing on every nation" (p. 3). One of the major changes in the economy has been the shift from public control and funding of social services to the growing market approaches in both the public and the private sectors in developing countries. As noted earlier, Pakistan has experienced rapid growth in market approaches in both private and public sectors at all levels of education during the last two decades. This has been the result of education reform policies which, as Carnoy (2002) and Pang (2006) put forth in their analyses, have been increasingly affected by globalization, particularly by international funding agencies

and financial institutions such as the UN (IMF, UNESCO, UNICEF) and The World Bank.

Dale's (1999) analysis shows that there has been a great push for free markets through the WTO

(World Trade Organization), and Carnoy's (2000) work shows that the IMF and The World

Bank have conditioned their financial support on the decentralization and liberalization of public

institutions, which includes education services in developing countries. The major argument for

these changes has been that governments can lessen their burdens by shifting responsibilities to

private and non-governmental organizations (open market), so that they can focus more on

improving governance and the economy. Moreover, it is argued that the establishment of the

private sector and the liberalization of institutions for social services increase competition, which

leads to more innovation in education. However, as Carnoy (2000), Pang (2006), and many

others have shown, marketization has changed education from a public good to a market

commodity, effectively changing the goals of education from truth seeking to preparing

individuals for the market economy.

The literature suggests that there have been mixed effects of globalization on education in

the developing world. Some of the positive effects of globalization on education include

increased access to established knowledge around the world, interaction and exchange of

educators, access to and use of technology, and increased emphasis on education for human

development (such as Education for All and the Millennium Development Goals, UNESCO,

2010). In Asia, some of the successful examples of the development of human capital that draw

on educational ideas and strategies from the developed world while trying to maintain the local

value systems include China, South Korea, India, Japan, and Thailand (Cheng, 2004). However,

some other literature heavily criticizes the globalization movement in education for its many

negative effects on developing nations. The analysis by Abdi, Puplampu, and Dei (2006), in their

12

book titled *African Education and Globalization: Critical Perspectives,* points out that globalization in education has not increased educational equity, has not reformed pedagogy for students' learning, and has not provided sufficient resources to widen and improve education systems in Africa. The book suggests three major reasons for the negative effects of globalization: poorly-planned and short-run improvement programs by international donor organizations, neocolonial policies advanced through globalization, and decline in the generation and importance of local knowledge. Similarly, Okoli (2012), while analyzing the effects of globalization from 1983 to 2008 in Africa, argued that as a result of globalization, Africa has not achieved universal primary education, has faced a "brain-drain" as thousands have immigrated to the developed world, has seen increased segregation in access to educational opportunities, and has seen the dominance of the developed world in creating research-based knowledge about Africa.

In the last two decades, there has been a significantly increasing influence of donors and international financial organizations on educational programs and policy making in Pakistan (Ali, 2012; and Ahsan, 2005); as a result, market approaches and private schools have grown rapidly (Andrabi, Das, & Khawaja, 2008). This trend of marketization has also pushed public sector universities to use the market approach to compete in the market place, as well as to generate needed funds for their institutions. Since market approaches follow market logic, there has been growth in education services, including teacher education programs, on a low-cost and an easy-to-complete basis, in order to attract more candidates, while also compromising the requirements for maintaining educational quality (Chang, 2013). One of the easy ways of offering low-cost programs is to offer them in the open and distance learning modes, which save candidates' time and expenses for accommodation and transportation, and require little effort to

complete the program. Following this logic, public and private institutions have significantly increased their offerings of off-campus teacher education programs in the last two decades, and these programs constitute more than two-thirds of Pakistan's total enrollment, as reported in national data-based reports (AEPAM Islamabad, 2012) and a few studies (Chang, 2013, and Pre-STEP/USAID, 2010). However, as many critics argue in Pakistan (Ali, 2009, 2012), and as some initial findings in my own practicum research (Chang, 2013) suggest, market approaches have negatively impacted the effectiveness and implementation of conventional teacher education programs. This warrants exploration of the extent of the impact of these changes in teacher education, which is the main goal of my research.

SECTION 2: RESEARCH ON TEACHER EDUCATION IN PAKISTAN

Although the last two decades have shown a slight growth trend in research and scholarly work on teacher education, historically this has not been the case because the lesser importance given to research in general in Pakistan has resulted in only a limited body of rigorous and valid research literature concerning teacher education in Pakistan. This section provides an analysis of the scholarly work available on teacher education in Pakistan, particularly on the quality and effectiveness of teacher education programs and the preparedness of the teachers. This section also illustrates how this research is important in terms of addressing the very important growth of off-campus market-model teacher education programs, which have been mostly overlooked by researchers studying teacher education in Pakistan (Pre-STEP/USAID, 2010). The analysis addresses the following areas: the beginning of identifying issues in teacher education; policy initiatives and in-service professional development; increase of locally published literature and quality issues; and open and distance learning (off-campus) teacher education programs.

Identification of Issues in Teacher Education

Most of the research on teacher education in Pakistan, as well as on other areas of education, has been done in the last two decades; however, there are many challenges with regard to the quality of the studies, as many of them are neither rigorous nor scholarly. Two rigorous studies on teacher education in Pakistan were reported by Warwick and Reimers (1995) and Davies and Iqbal (1997). Warwick and Reimers (1995) drew on the findings of the BRIDGES project, a significant research project in the early 1990s, conducted collaboratively by the Harvard School for International Development and the Academy of Educational Planning and Management Islamabad in four provinces and in the Islamabad federal area, on how formal education and teacher training (certification) are related to the quality of teaching and student achievement in the public primary schools of Pakistan. In-service teachers and principals were surveyed, and achievement tests were conducted with 4th and 5th grade students on science and math. In addition, the researchers interviewed faculty and conducted intensive observation of classes at two teacher training colleges in Baluchistan, a remote south-western province of Pakistan. The study found a significant relationship between higher levels of formal education (academic) of teachers and student achievement on four test scores, whereas teacher certification was found to be significantly related to student achievement test scores on only one out of four tests. Moreover, neither higher level formal education nor higher level teacher education was found to be significantly related to effective teaching. The study highlighted many issues with teacher education programs as reasons for the ineffectiveness of teacher education, such as "unmotivated faculty and students; inactive principals; a curriculum divorced from tough realities of teaching; heavy reliance on lecturing, dictation, and rote memorization; and a lack of supervision … (which) all undercut the ability of certification programs [teacher education programs] to turn out well-prepared and dynamic teachers" (Warwick & Reimers, 1995; p. 32).

Although this study identified some significant issues with teacher education for primary teachers, it did not examine how the policies were related to these issues, particularly with program implementation. Moreover, the study of teacher training programs was confined to regular programs at two colleges of elementary education in a remote province of Pakistan.

The research by Davies and Iqbal (1997) was a case study of one teacher education college, in which the researchers surveyed the views of students and faculty in four areas: how well participants in the teacher education program felt prepared for effective teaching; what was needed in the program to prepare more effective teachers; what was appropriate curricular material in courses; and what were the usual teaching and learning methods used in the program. Overall, the study explored how well the teacher education program matched the areas considered appropriate for school effectiveness. The researchers found that students, faculty, and tutors varied in their views about what factors in teacher education were responsible for school effectiveness, except that they did agree that the participant-teachers needed to develop practical classroom teaching skills. However, the study reported that the teacher education program heavily emphasized rote memorization among participants, through lecturing and dictating notes methods, outdated and theoretical syllabi, and question-spotting assessment, which hardly prepares teachers for how to teach and learn effectively. The findings reported in this study are similar to those reported by Warwick and Reimers (1995), which identified important gaps in teacher education programs around 1995, particularly their over-emphasis on theory and memorization to reproduce the memorized material in exams; that is why most of the participants in Davies and Iqbal's (1997) study reported that graduates of the program lacked practical skills. However, neither study investigated what led to the theoretical nature of these programs, their emphasis on rote memorization, and the possible relationship between policies and levels of

16

program implementation. This limitation notwithstanding, these two studies were pioneering work, in the decade of 1990 to 2000, in identifying issues with conventional teacher education in Pakistan.

Building on the discussion of the issues reported in the above-mentioned two studies on teacher education programs in Pakistan, and based on analysis of available reports on teacher education institutions, Kizilbash (1998) reported several aspects which need to be addressed in order to improve the performance of teacher education institutions. He listed many significant issues which have caused the poor performance of public teacher education institutions in Pakistan, including extensive use of the conventional lecture method, inadequate and outdated preparation of teacher educators, the short period of preparation programs, the shortage of schools for internship or practice teaching, traditional outdated curriculum for programs, lack of commitment to quality and improvement at teacher education institutions, lack of research on teacher education for the improvement of programs, lack of effective evaluation of teacher education programs, and lack of coordination among teacher education institutions to improve quality. Kizilbash, based on his analysis, criticized government education policies which lack proper measures to improve the quality of teacher education programs and institutions. He claimed that "the harsh fact is that the neglect of the education sector as a whole has been had enough, but the need for quality teacher educators has gone completely unrecognized" (Kizilbash, 1998, p. 115). These were the few rigorous and valid studies in the decade of 1990 to 2000 which effectively demonstrated scholarly and critical work on issues and gaps in teacher education in Pakistan.

Policy Initiatives and Emphasis on In-service Professional Development

The criticism by researchers/scholars in the late 1990s, combined with pressure from local stakeholders and international donors, has pushed the federal government to focus on teacher education in order to improve the quality of teaching in Pakistan. Similar pressures aroused efforts to improve the quality of teachers and teaching through effective teacher education (in-service and pre-service), as Pakistan committed to "Education for All." Thus the National Education Policy 1998-2010 provided a section on improving teacher quality through teacher education, which led to many in-service teacher training reforms, such as short refresher courses, short in-service certificate programs, and continuing professional development programs for teachers. The policy also recognized the importance of training all in-service untrained teachers, which constituted about a quarter of all public school teachers in Pakistan (AEPAM Islamabad, 1998), through allowing teacher education institutions to offer in-service short courses and off-campus teacher education programs. Moreover, the National Education Policy 1998-2010 heavily emphasized the expansion and growth of higher education for economic development in Pakistan. Thus, the higher education commission reforms which began in 2001 (HEC, 2002) allowed a market approach in higher education institutions, including teacher education institutions, and they allowed them to offer market-model programs, mostly off-campus programs in open and distance learning modes, under the policy initiative titled "self-finance programs." Thus the early 2000s were the years of initiating two major changes to improve teacher quality and the provision of teacher education to all untrained teachers, which included many reform projects for the in-service professional development of teachers and the growth of off-campus market-model teacher education programs across Pakistan. However, most of the literature on teacher education in this period focused on studying different aspects of in-service professional development programs for teachers, whereas off-campus programs as well

as conventional teacher education programs and their effects received minimal scholarly attention. I analyze some significant literature on in-service professional development in the following section.

Most of the studies on in-service teacher education programs and reforms have focused on identifying effective practices, strategies, and mechanisms for improving in-service teachers' competence. For example, several studies (Khan & Halai, 2009; Chang, 2006; and Hussain & Ali, 1998) reported how a cluster-based mentoring program, which originated in the Aga Khan University's Institute for Educational Development, was an effective strategy for the professional development of teachers. Hussain and Ali (1998) studied the impact of a cluster-based mentoring program for in-service teachers in several districts of Baluchistan province, in which a mentor teacher (or professional development teacher), stationed at a learning resource center (LRC), worked with about 25 teachers in a cluster of schools in the radius of a few miles, and organized different professional development activities such as day-long weekly workshops, development of learning resources and instructional materials, observation of mentee-teachers' classes, and post-observation of one-to-one reflective sessions. Based on their evidence collected through observations and interviews, they concluded that this strategy effectively changed in-service teachers' practices from traditional lecturing and rote-learning to a more progressive activity-based teaching.

Chang (2006) conducted a study about the impact of a similar cluster-based mentoring program in a rural district of Sindh, finding that mentee-teachers had changed their teaching practices to more student-centered teaching while engaging their students in different kinds of activities, but that this change was sustainable only while the teachers were supported by the mentor. Once the ongoing support by the mentor stopped, because of the end of the mentoring

program, most of the teachers went back to their traditional note-dictation, lecturing, and rote-learning based practices, which were the norm in most of the schools. A few other studies (such as Khan & Halai 2009; Halai, 1998, 2006; and Ali, 2000) demonstrated a slightly varied mentoring approach, under the broader umbrella of ongoing school-based support, where the mentor worked with in-service mentee-teachers as co-planner, co-teacher, and subject expert. However, most of the studies on mentoring strategies for teachers' in-service professional development only focused on changes which occurred during the program, whereas they overlooked the critical question of change sustainability. A few studies in the literature on the issue of sustainability (Chang, 2006; Ahsan 2005; and Memon & Wheeler 2000) suggest that most of the changes in teachers' practices were not sustainable, and teachers went back to traditional teaching practices because of their long-standing traditional teaching school environments and the continuous influx of traditionally-trained teachers from conventional public teacher education institutions.

Another body of literature (Mehrun-Nisa, 2009; Rarieya, 2009; Ashraf, Khaki, Shamatov, Tajik, & Vazir, 2005; and Rettalick & Mithani, 2003) reported studies which identified successful practices and strategies used in in-service on-campus programs, which effectively transformed in-service teachers' understanding of teaching and learning: they changed their practices into more progressive activity-based teaching while working at their schools and participating in the in-service program. Most of these studies concluded that the successful in-service programs were comprised of a reasonable balance between on-campus sessions and a field-based (classroom teaching and school-based work) component. These studies claimed that the in-service programs engaged the participants in progressive learning environments to re-conceptualize their notions of teaching and learning successfully, and to change teachers'

20

practices from traditional lecture-based teaching to progressive student-centered teaching, while involving students in different activities. Many of these studies focused on reflection and critical analysis to develop reflective practice in teachers, through reflective dialogue (Rarieya, 2009), through effective questioning (Mehrun-Nisa, 2009), and through engaging in teacher action research (Dean, 2009) leading to effective re-conceptualizations of teachers' notions. Further, use of hands-on (using physical movement such engaging hands) and "minds-on" (involving different kinds of thinking) activities, engagement in the development of learning and instructional materials, and collaborative project work/assignments in in-service courses led to changes in teachers' practices.

A significant limitation of these studies is that they all focused on studying the participants while they were participating in their in-service professional development program, where they were more likely to implement the practices which were supported through the program. When the support from the reform programs ended, and teachers were left on their own to deal with the issues of mainstream public school environments, which are filled with traditionally trained teachers, they tended to go back to their traditional teaching practices. No studies focused on how the teachers who changed their practices during the reform program taught once the reform program support ended.

A significant amount of research literature on effective practices for in-service teachers' professional development appeared over the decade of 2000 to 2010. Additionally, significant growth took place in the offerings of off-campus teacher education programs, in order to address the issues of untrained teachers. However, rarely did any study focus on the effectiveness and effects of these programs. While dissatisfaction with the conventional teacher education programs (both on-campus and off-campus) was evident in most of the literature mentioned

earlier, no rigorous and valid study was done to understand program implementation and the effectiveness of the traditional teacher education programs. Nonetheless, the dissatisfaction in scholarly circles and the poor quality indicators of school education, particularly about enrollment, quality of teaching, and student achievement, which were reported in international reports (by UNESCO and The World Bank), created pressure on the government to reform teacher education in order to improve the quality of teachers and teaching in Pakistan. Thus several government initiated studies, in collaboration with international donors (such as UNESCO/USAID, 2006; Butt, 2008; Pre-STEP/USAID, 2010), led to teacher education reforms in public teacher education institutions, particularly the initiation of the Pre-service Teacher Education Project (funded by USAID) to build the capacity of teacher education institutions, and to initiate a two-year diploma in education and a four-year honors teacher education program for primary and secondary teachers. These studies reported several challenges faced by teacher education institutions which led to poor functioning of the institutions and outdated program practices at these institutions. An analysis of these studies is presented in the following section.

As discussed earlier, a few rigorous and scholarly authentic studies were conducted by researchers from international development organizations in collaboration with government and donor organizations. UNESCO (2006) reported an historical analysis of teacher education policies and existing challenges in teacher education in the public sector teacher education institutions. The report, based on historical analysis of policies and plans, claimed that there was random and irrelevant emphasis on policies and plans, while no single authentic and comprehensive policy was established for reforms to improve the quality of teacher education. The report pointed out several issues with teacher education programs and institutions, such as course work irrelevant to classroom teaching, lack of preparation of teachers for classroom

22

management and motivation for teaching, lack of preparation for the relationship between teachers, the school, and the community, and no focus on quality improvement (UNESCO, 2006). This report, and the criticism in other studies (Pre-STEP/USAID, 2010; But, 2008), played a significant role in initiating teacher education reforms, such as the initiation of four-year teacher education programs at colleges in the Punjab province, and initiation of the Pre-service Teacher Education Project (Pre-STEP), a nation-wide teacher education reform program to initiate four-year teacher education programs in public institutions, in collaboration with, and with funding from, USAID Pakistan.

A comprehensive survey study was conducted by Pre-STEP/USAID (2010) to assess the strengths and challenges in selected teacher education colleges and universities across Pakistan. As the Pre-STEP/USAID (2010) study was a baseline assessment study, it was comprehensive in terms of its focus on four important areas of teacher education institutions: teaching and learning, physical infrastructure and resources, institutions and programs, and management capacities of teacher educators and principals. This study also used both qualitative data (interviews and observations) and survey data; however, it only focused on colleges for preparing primary teachers, and on university departments for preparing secondary teachers, excluding the colleges for preparing secondary teachers. The study reported "… that educators generally address content knowledge of their subjects but do very little to prepare teacher trainees to teach those subjects" (Pre-STEP/USAID, 2010; p.V). The study highlighted many other important issues, such as serious gaps in the capacity of faculty, over-emphasis on the lecture method, absence of effective lesson planning, non-existent research capacity at colleges, and theoretical and hard to complete syllabi in the traditional regular programs (Pre-STEP/USAID, 2010). This study also reported some interesting initial findings about an off-campus (AIUO Islamabad based) program

in comparison to regular programs, which included over-enrollment (two thirds of total enrollment) in the AIOU Islamabad-based off-campus programs compared to lack of enrollment in the regular programs at government colleges, where about 50% of slots open for enrollment remained unfilled. They also reported that even though the regular programs cost less than the AIOU Islamabad-based off-campus programs, most of the enrollment went to off-campus programs. They claimed that the reason for the high enrollment in AIOU Islamabad programs, "… as mentioned during focus group interviews – is that the loopholes in the AIOU Islamabad assessment and examination system allow for serious manipulation in completion of assignments and examinations, thereby attracting less motivated students to opt for AIOU Islamabad program" (Pre-STEP/USAID, 2010; p. 6). Because this study did not systematically look into why enrollment was so high in off-campus programs, and how that affected teacher education in Pakistan, the researchers strongly recommended a comprehensive study to assess the efficacy of AIUO Islamabad off-campus programs. Here, potentially, my study contributes in filling the gap by providing empirical evidence on the effects of growth in off-campus market-model programs.

Local Faculty-published Literature and Quality Issues

Although the publication of papers by local faculty dramatically increased in the last five years, correspondingly with the publication of many papers on teacher education in Pakistan, a close analysis of the quality of these papers shows that many of them do not meet the criteria for high-quality research and research reporting in education (AERA, 2006, 2009). Here I report only the results from studies that meet these standards. Few studies published in the last five years highlight issues similar to those reported in Pre-STEP/USAID (2010), chiefly expressing the dissatisfaction of different stakeholders with the quality of teacher education programs and the preparedness of teachers (graduates). Ali's (2011) analysis focused broadly on understanding

how teacher education practices in Pakistan compare with popular narratives and theories in the international context. This study found that teacher education in Pakistan is heavily focused on technical aspects, providing a certain set of concepts and understandings about teaching and learning, whereas teacher education in the international context focuses on social, ethical, reflective, and analytical issues, and on the professional importance of teaching and learning. Manzar-Abbas and Lu (2013) studied problems in collaboration with schools during the practicum or internship of participants in teacher education programs at 14 public elementary colleges of education. They found that the role descriptions for interns and the differentiation of roles were not clear between faculty supervisors and school-based facilitators, which left students confused about what they were required to do and from whom to seek particular support. They also found that schools considered the practicum or the practice teaching exercise of teacher education program participants (pre-service and in-service teachers) disruptive and unimportant because they thought it did not result in learning important skills.

Overall, most of the studies in the last five years have focused on broader issues related to different aspects of traditional teacher education programs in elementary colleges. However, none of the studies focused on a comprehensive analysis of program implementation, particularly in relation to the policy resulting in the growth of off-campus market-model programs.

Open and Distance Learning Teacher Education

The off-campus programs focused on in the present study offer a variety of versions of open and distance learning modes in Pakistan, and the majority of these are offered by AIOU Islamabad – the federal Open University. Before turning to an analysis of the literature on distance learning with regard to its effectiveness, I first sketch a brief background of open and distance education in the developing world to provide a context for the subsequent analysis.

The first evidence of distance learning for teacher education was found in 1963, when teachers for hundreds of thousands of Palestinian refugee children were trained through distance learning teacher education (Perraton, 2010). Since then, distance teacher education has grown significantly in the last four decades, particularly in developing countries; however, the evidence about its effectiveness is mixed, and it varies among countries. Perraton's (2010) analysis shows that several countries have used distance learning for initial teacher education and continuing professional development, but there is no direct evidence of its effects on classroom teaching. Although Perraton's (2010) analysis of reports about different countries indicates that distance learning teacher education programs have been helpful in training large numbers of teachers, there is insufficient empirical evidence of the quality of these programs. Adding to this conversation, Ogunleye (2013), analyzing quality and quality assurance issues in distance education, claimed that wide expansion of open and distance learning in the developing world has posed many challenges and serious concerns for its quality because the use of quality assurance techniques, which are used for traditional teacher education programs, does not seem appropriate for the quality assurance of distance and open learning programs.

The papers reporting studies of distance education (including teacher education) offered by AIOU Islamabad, as well as by other institutions in Pakistan, have also been mostly published by local faculty in the last five years. Many of these papers also have similar issues regarding the quality of the study and its reporting, as discussed earlier. Nonetheless, some of these papers and studies highlight some important facets of distance learning and off-campus programs, including their strengths and challenges, as next discussed.

Jumani, Rahman, Chisti and Malik (2011) addressed the three instructional components of AIOU Islamabad's program, which include optional tutorials at study centers across the

country, self-instructional materials (such as course books, study guides, audio/video programs on TV and radio), and one full-day compulsory workshop at the end of a semester. The authors' description of the evaluation of AIOU Islamabad-offered courses noted that it consists of formative assignments (30% of the total) and a final exam (70% of the total), and the minimum requirement to get a passing grade in a course is 40%. It is noteworthy here that the minimum requirement for passing a course in regular programs is 50% to 60% at various traditional institutions. Jumani, Rahman, Chisti and Malik (2011), while describing the nature of teacher education programs at AIOU Islamabad, the gigantic structure of which spreads across Pakistan, and the huge enrollment in its programs, claim that AIOU Islamabad programs are successful and effective. However, their paper does not provide any direct evidence of the effectiveness of the AIOU Islamabad programs in terms of improving the quality of teachers and teaching, or in terms of its effects on students' learning achievement.

Studies of distance learning (off-campus programs) reported in other papers provide evidence of satisfaction with some aspects of off-campus programs and dissatisfaction with many other aspects of these programs. Buzdar and Ali (2013) surveyed 450 students at nine centers of the AIOU Islamabad teacher education program for primary teachers, to ascertain whether the courses develop reflective thinking among the participants. Their study's finding that the mean scores for categories about reflective thinking were higher than habitual actions, and were statistically significant, strongly suggests that the courses helped the participants to develop reflective thinking. However, the survey was not clear about how far the mean score of students was from the maximum possible score.

Another two studies focused on two important aspects of distance teacher education programs. Ali, Mahmood, and Mahmood (2011) investigated whether students in off-campus

programs were satisfied with their tutors' performance in handling their assignment work, and

Akhter (2011) studied the effectiveness of using TV programs by AIOU Islamabad with teacher

program participants. Ali, Mahmood, and Mahmood (2011) found an overall dissatisfaction on

the part of students with the evaluation of their assignments by tutors. The most common types

of dissatisfaction reported by students in this study included below average input by tutors and

the university for writing assignments: 60% of students reported that tutors did not provide any

written feedback and just wrote a check mark on their assignments; roughly 70% of students

reported that tutors did not review their assignments thoroughly; about 77% of students reported

that they did not get any feedback on the strengths and weakness in their assignments; about 70%

of students were not satisfied with the evaluation grade of their assignments; and about 80% of

students did not get their first assignment back before writing their second assignment. Akhter's

(2011) study highlights a common issue of access and the availability of television programs to

the program participants. This study found that while slightly more than 50% of the participants

surveyed considered the contents of the television programs useful, the participants reported that

they could not watch more than 60% of the programs because of odd television program

schedules, electricity failures, and the non-availability of television.

Although the literature analyzed above provides some insights about open and distance

learning in teacher education programs in Pakistan, it is too limited to provide an understanding

of the overall issues with the effectiveness of these programs, given the fact that off-campus

programs constitute an overwhelming proportion of enrollment in teacher education programs.

Further, the important work of policy and program reforms requires evidence on how the

overwhelming growth of these off-campus market-model programs has affected the quality and

effectiveness of teacher education program implementation in Pakistan. Since no study has

focused on this area to date, my research seeks not only to contribute to filling this gap but also to provide a pioneering example for policy-oriented research on teacher education design and program implementation in Pakistan.

CHAPTER III

CONTEXT OF THE STUDY

This study was conducted in a southern region of Pakistan. Because particular socio-cultural and educational settings in Pakistan can lead to particular effects, it is important to understand the context of the study. This chapter consists of four sections. The first section presents an overview of the creation of Pakistan, its demographics, and its political and economic systems. The second section presents a detailed description of the school education system of Pakistan, including government schools, private schools, and Madaris. The third section presents an overview of higher education in Pakistan, and the fourth section presents an historical overview of the development of teacher education programs and policies as well as the current landscape of teacher education programs in Pakistan.

SECTION 1: OVERVIEW OF THE CREATION OF PAKISTAN AND ITS SYSTEMS

A Brief Background of the Creation of Pakistan

The areas comprising present Pakistan were part of India (locally called Hindustan and Raj in the British Colonial period), and they remained colonized by Britain for almost a century before India was divided to establish Pakistan and present day India, in August 1947. Before the British took full control of the Indian subcontinent in 1858, other European colonizers such as the Portuguese, Dutch, and French, controlled some parts of it; however, the control of a relatively larger area rested with Muslim rulers of the Mughal Empire. Muslims ruled India for eight centuries before it completely fell to the British; however the empire was comprised of many small states distributed in the ruling class of India (Jaffrelot & Beaumont, 2002). Many local Hindu and Muslim leaders initiated civil rights movements for the rights of local people in the Raj (British India) soon after British colonization. These movements later turned into non-

violent political movements to free India from British control. However, because the British applied a "divide and rule" strategy, different ethnic and religious groups ran separate movements and remained weak. In the early twentieth century, Gandhi's influential leadership successfully united many of the ethnic groups (mostly Hindus) under one political movement, called the Indian National Congress. However, the Muslims of India established a separate political movement, called the All India Muslim League, to protect the rights of the Muslims of India. Jaffrelot and Beaumont's (2002) analysis shows that the British fueled further separation and differences among these two movements by using the religious differences between Hindus and Muslims. These movements became stronger in the 1940s as more Indian people received modern education and thus became active in the struggle for the independence of India. However, the differences between the Hindus and Muslims of India could not be resolved, and eventually India was divided into two independent countries, India and Pakistan (east and west Pakistan were separated by about 2000 kilometers of India), as movements for independence became stronger and the British became weaker after fighting World War II. Later on, in 1971, West Pakistan became an independent nation, Bangladesh, after a bloody war between India and Pakistan. Since then, Pakistan has been a federation of provinces and includes three federally administered territories.

Demographics of Pakistan

A nation of an estimated population of 180 million, geographically Pakistan is in the southern part of Asia and is surrounded by India on the east, China and Central Asia in the North, Afghanistan and Iran on the west, and the Arabian Sea (Indian Ocean) in the south. The country is demographically divided among many ethnic groups, which are populated in different provinces/regions and in rural and urban areas. Pakistan consists of six significant ethnic groups

-- Pashtuns, Balochs, Sindhis, Siriakies, Punjabis, and Mohajirs (emigrants from India at the time of the division) -- as well as many other smaller groups. All of the groups have different cultures and separate languages, such as Sindhi in Sindh, Punjabi and Siriaki in Punjab, Balochi in Baluchistan, and Pashto in Khyber Pakhtunkhawa. Urdu is Pakistan's national language, and English is its official language. These are the two common languages across the provinces and regions. Despite different ethnic groups, there are many common cultural and social threads across the country, such as joint-family living, marriage traditions, clothing, and socialization patterns.

Furthermore, a significant difference is observed between urban and rural areas, which consist of 35% and 65% of the total population, respectively. Urban areas are densely populated, and most of the people run businesses, or work in industry or private organizations, whereas the rural population is less dense because people live in scattered villages or rural towns, and mostly do agriculture/dairy farming, run small agro-industry based businesses, work as daily-wage laborers, or have jobs in the public sector. The physical infrastructures, and the facilities of living and services, including health and education, are much better in urban areas compared to rural areas. People in urban areas are generally more educated and follow more modern living styles, whereas people in rural areas are culturally more traditional and less educated, particularly women in remote rural areas. A significant proportion of the population follows tribal systems or community-based systems and strongly conserves old cultural and social traditions. Another small part of society follows Islamic conservative traditions.

The Government System of Pakistan

Pakistan, officially known as the Islamic Republic of Pakistan, is a parliamentary democracy; however, it has been under military dictatorships for almost half of its lifespan. The

general elections of 2013 led to the transfer of power from one elected government to another elected government for the first time in the history of Pakistan. Parliament consists of the National Assembly and Senate, whose members are elected for a term of five years. National Assembly members are elected through direct vote in population-based constituencies, and they elect the prime minster, as the head of the government of Pakistan, through a simple majority vote. The president as the head of state is elected by parliament, four provincial assemblies, and representatives of federally administered territories, for a term of five years. Each province has a provincial assembly, which elects a chief minister of the province for five years. Recent policies (Local Government Ordinance 2001) led to decentralization by creating district governments, which are run by elected district councils headed by district Nazims (mayors).

Economic Overview of Pakistan

Pakistan was an overwhelmingly agricultural economy at the time of its creation in 1947. However, the economy has moved from being agriculturally based to small-scale and large-scale manufacturing industries and a service sector. According to The State Bank of Pakistan (2013), the agriculture sector consists of 35.1% of the total gross domestic product (GDP), the industry sector consists of 17.3%, and the service sector consists of 47.7% (fiscal year of 2011-2012). The State Bank of Pakistan describes the economy sectors as comprising the following: the agriculture sector generally consists of crops (wheat, rice, cotton, and sugarcane), livestock, fisheries, and forests; the industry sector is based on small-scale and large-scale manufacturing, mining, construction, electricity, and gas production; and the service sector consists of wholesale and retail trade, transportation, finance, housing services, public administration and defense, social services, and private services.

Pakistan has made progress in human development over time; however, present economic indicators are significantly lower in comparison to the rest of the world, and they are slightly lower in comparison to the region. According to UNDP (2013) reports, Pakistan ranks 146th on the Human Development Index (HDI), with a value of 0.515 (out of 1), in comparison to 0.698 for the world, and 0.558 for the region (South Asia). Education stands lowest among the three measures of HDI, as the education score is 0.397, compared to 0.721 for health and 0.479 for income (UNDP, November 5, 2013). The Gross Domestic Product (GDP) growth rate has slowed down to 3.4% (in 2013), from around 4.5% in earlier years (according to the Asian Development Bank, 2013). Other human development indicators are also quite low: life expectancy is 65.7 years, mean years of schooling per adult is 4.9 years, and the gender inequality value is 0.567 (out of 1), according to UNDP (2013). Pakistan clearly needs considerable work on human development, particularly in the education of the masses.

SECTION 2: EDUCATION IN PAKISTAN

In order to understand the current education system of Pakistan, it is important to trace its history back to the British colonization period of India. Here I present a brief overview of the establishment of modern schooling in that time, before presenting the history and a current overview of education in Pakistan.

Establishment of Modern Schooling in India

Before the British colonization of India, Muslim Empires ruled it for several centuries. Education in the era of Muslims was mostly confined to the ruling class (children of Nawabs, Rajas, and Mirs), the religious class, and wealthy people, and, consequently, most of the population remained uneducated. When the British first colonized India, they focused attention on control of the people who resisted colonization, in order to use their resources. The British

kept India divided into small states. In some cases the British divided India into further states and reshuffled them to reward power or control to the people loyal to the British, most of whom belonged to the ruling class established in the era before British colonization (Jaffrelot & Beaumont, 2002). Hence, for a time the education system remained the same, and it was accessed only by the ruling and religious elites of the society.

After sustaining their control, the British realized the need to educate the people, but their purpose was to develop a class of people loyal to the British who could be used to communicate with the masses and engage them in administrative or clerical jobs. Thomas Macaulay, in his "minutes on Indian education," defined it this way: "We must do our best to form a class who may be interpreter between us and the millions who we govern, a class of persons Indian in blood and color, but English in taste, in opinions, words and intellect." Gradually, most of the indigenous education was replaced by a modern school system, but the focus on producing people knowing English and having English values who could serve as interpreters and do the clerical jobs remained (Jaffrelot and Beaumont, 2002).

The people of India, particularly Muslims, strongly resisted this modern education, just as they resisted British colonization and rule. However, after defeat in the mutiny of 1857, some of the Muslim thinkers, such as Syed Ahmed Khan, realized that resistance to the system deprived Muslims of the facilities, benefits, and resources of the government and alienated them from the mainstream activities in India. Hence, in the late nineteenth century, Khan initiated a movement known as the "Aligarh Educational Movement," to provide modern education to the Muslims of India. In the meantime, the British gradually opened doors to the Indians to get higher education in the United Kingdom (UK) in the modern sciences and technology. Most of the Muslim leaders who struggled to establish Pakistan received modern education, including Mohammad Ali

Jinnah, considered the founder of Pakistan, who studied law in the UK (Jaffrelot and Beaumont, 2002). However, the education infrastructure was still under-developed in India when British colonization ended in 1947. It was even worse in the areas which fell into Pakistan, since those were Muslim majority areas that had resisted the British throughout their colonial rule in India. According to Hoodbhoy (1998), Pakistan inherited about eight hundred schools and one university for its population of about thirty million.

A Glimpse of the History of Education Changes

The sixty-seven years of the history of education after the establishment of Pakistan present a complicated view of competing ideologies, philosophies, interests, and hegemonic influences of different groups in the ruling class of the society. Throughout these decades, Pakistani society went through an identity crisis, marked by a struggle for at least four different identities. Modern conservative groups wanted to develop "Islamic nationalism," radical Islamic groups wanted to promote "Islamism" (government based on Islamic laws), traditional tribal and feudal groups wanted to sustain the tribal or feudal infrastructure by limiting the access of the masses to liberal knowledge, and liberal groups wanted to develop society on a liberal democratic basis. Hence, whatever group came into power tried to modify the curriculum to promote their ideology and to safeguard their interests (Hoodbhoy, 1998). However, for more than half of Pakistan's life, the military ruled and tried to promote "Islamic nationalism," whereas at least two periods showed the efforts of liberals to advance liberal democracy through education, particularly under the Pakistan People's Party government of Zulfiqar Ali Bhutto (1972-1977), and, two decades later, of his daughter Benazir Bhutto in the early nineties (Malik, 2008; Nayyar & Salim 2006; Hoodbhoy, 1998). The feudal and tribal chieftains groups (about 2% of the population) have also been in power one way or another way (in both military and

civilian governments), and they have been trying to keep the masses away from education, particularly from liberal knowledge, in order to sustain their tribal hegemony.

Apart from the competing philosophies and ideologies of internal groups, education in Pakistan has been heavily affected by foreign donors and international organizations. The complicated alliances between the ruling class (feudal, capitalists, and tribal lords), the military, and foreign donors in different times have resulted in different parallel school systems in Pakistan. Ali's (2009) analysis of policy making and implementation points out that education policy making and implementation heavily depended on policy borrowing from the developed world, under the influence of foreign donors and international organizations. Ali (2005) claimed that foreign funding of educational policy reforms and improvement projects was tied to the strategic interests of foreign donors; hence education has been heavily affected by the geo-strategic conditions of the region as well as by the global political landscape. For example, General Zia's era of dictatorship (1977 to 1988) affected the education system in at least two significant ways. First, this period brought Islamization into education (curriculum, structures, and culture of schools), and thousands of mosque primary schools were opened, where traditional clerics supervised the schools (Malik, 2008). Second, this period experienced a rapid growth of Madaris (Islamic religious schools), which skyrocketed from 700 Madaris to about 9,000 Madaris in the thirteen years of the Zia era (Nayyar & Salim, 2006). Most of the funding for these two big changes came from foreign donor organizations and foreign non-governmental Islamic organizations. Most of the Madaris were created to recruit Mujahedeen (holy warriors) to fight against the Soviet Union forces in neighboring Afghanistan. The democratic period after Zia showed a rapid growth of the private sector, which was a result of policies influenced by international organizations.

The low priority given to education by the governments of Pakistan created room for foreign organizations to intervene. An overview of public expenditures on education shows low spending on education, indicating education's low priority for education in public policies, which has resulted in low enrollment and adult literacy rates in Pakistan. UNDP (2013) indicators of public spending on education show an average spending of 2.5% of GDP in the last decade, which is much lower than the regional average of 3.8% of GDP in South Asia. Because of the low priority on education and the resulting lower public spending on education, Pakistan's education achievement indicators are the lowest in the region. Table 1 provides a comparative analysis of spending (in terms of percentage of GDP) in relation to enrollment ratios and literacy rates among South Asian countries.

Table 1: Comparison of South Asian Countries on Percent GDP Public Expenditure of Education by Key Education Output Indicators

Country	% of GDP Spent on Education (2000-2010)	HDI Ranking	Net Enrollment Primary	Literacy Rate of 15-24 year olds	Girls to Boys Ratio Primary
Maldives	6.32	104.00	94.50	99.30	0.98
Bhutan	5.28		90.20	74.40	1.01
Malaysia	5.02	140.00	95.90	98.40	1.00
Nepal	4.40		71.10	83.10	0.86
India	3.50	136.00	98.10	81.10	1.00
Indonesia	3.22	121.00	99.50	99.40	1.02
Pakistan	2.50	146.00	72.00	70.68	0.82
Bangladesh	2.42	146.00		76.90	
Sri Lanka	2.10	92.00	94.10	98.10	1.00

Created by Author; Sources: Asian Development Bank (2013b), and The World Bank (2013).

The comparative analysis of South Asian countries clearly indicates that, overall, countries which spend more on education have better output. As Pakistan spends a comparatively low percent of its GDP on education, the output indicators such as net enrollment at the primary

level, the literacy rate of age group 15 to 24 years old, and the girls to boys ratio at the primary level in Pakistan are the lowest in the region.

Low public spending on education, because of lack of interest by different ruling groups in mass education, coupled with the global push for liberalization and decentralization of public services, has allowed the rapid increase of the private (and non-governmental) sector in school education in the last two decades. Table 2 provides a comparative overview of the key indicators between the public and private sectors in the last two decades. The comparison shows a ten times higher increase in the private sector compared to the public sector, in terms of the number of schools, enrollment, and number of teachers. Since the private sector is less regulated and functions on a market model basis, it has various different school systems which serve the different socio-economic strata of the society.

Table 2: Comparison of Increase in Key Indicators of School Education between Public and Private Sector in the Last Two Decades.

Key Indicators (K-12)	1995 (2001 for number of teachers)	2012	% Increase since 1995
Number of Private Schools	16,236	64,372	269.5
Number of Public Schools	145,487	164,888	13.3
Enrollment in Private Schools	2,628,000	12,947,238	392.7
Enrollment in Public Schools	16,977,437	23,029,554	35.6
Number of Teacher in Private Schools	296,502	635,782	114.4
Number of Teachers in Public Schools	613,879	699,257	13.9

Created by Author; source AEPAM Islamabad reports 1995, 2001, & 2012. Note: teacher data is compared between 2001 and 2012 because data for teachers in private schools is only available from 2001.

Multiple parallel school systems have created a disparity in terms of access to educational opportunities by the different socio-economic groups of the society. In the following sections, I briefly describe differences among the multiple parallel school systems in Pakistan.

Existing View of School Education in Pakistan

The existing view of school education reflects at least four distinct systems which serve the different strata of the society. The government school system, which reflects an authoritarian administration and centralized curriculum, assessment, and management, functions under the heavy influence of bureaucracy and politicians. The private school system, on the contrary, is independent in selecting curriculum and examination systems, but it is divided into different layers, mostly reflecting the socio-economic and cultural stratification of society. The military schools, although considered public, function independent of government influences and follow the military philosophy of modernization. These mostly serve the officer class in the military. The Madaris system is also layered to reflect different religious sects, and it follows the philosophy of the respective sects in its curriculum. Table 3 shows the numbers of schools in each sector and their enrollment. I will next briefly describe three aspects of each of these schools systems: ideology, structure, and quality of instruction.

Table 3: Comparison of Level-wise School Types and Enrollment in Pakistan (2011-2012)

School Type	Primary	Middle	High	Higher Secondary	Total	% in total	Enrollment	% in Total
Private Schools	18,713	25,788	17,388	2,192	64,081	26.5	12,947,238	34.4
Public Schools	135,937	16,157	11,267	1,338	164,699	68.1	23,029,554	61.1
Madaris	0	0	0	0	13,075	5.4	1,707,424	4.5
Total	154,650	41,945	28,655	3,530	241,855	100	37,684,216	100

Created by Author; Source: AEPAM Islamabad (2012).

Public School System

The public school system is divided into federal and provincial school systems, as well as on the basis of gender, through boys' schools, girls' schools, and co-educational schools. Each of the five provinces and the three federally administered territories is responsible for the education of the people in the province territory. The federal government provides guidelines to the five

provinces through national education policies, and it monitors school services in the three federally administered areas: Federally Administered Tribal Areas, Azad Kashmir (Pakistani controlled part of Jammu and Kashmir), and Islamabad (Ministry of Education Government of Pakistan, 2009a). In general, the federal government provides guidelines through education policies, gives grants for education to the provinces, and provides curriculum guidelines, whereas provincial governments make and implement their policies, directly run the education department (provincial government schools and colleges), carry out development/improvement projects or reforms, and monitor the examinations.

The dominant ideology to promote "Islamic nationalism" has been generally reflected in the curriculum of the government schools, with the exception of a few periods, during which liberal groups made some unsuccessful attempts to change the curriculum to base it on liberal democratic ideology. However, the curriculum reforms in recent decades have reflected a slight shift towards liberal democratic citizenship and more open-ended learning experiences for students. Nonetheless, many analysts fear that books for language, social studies, and civics still contain much of the content to promote Islamic nationalism infused by the Zia regime (Nayyar and Salim, 2006). Since the guidelines for the school curriculum are provided by the federal government, all provincial and federal government schools follow a similar curriculum. Development and publishing of textbooks, however, as well as other learning materials, is done in the provinces, and, consequently, unlike federal government schools, the provincial schools receive materials that are defined in each province. The core subject areas include language (English and Urdu or regional languages), General Science, Math, and Social Studies; Islamic Studies and Pakistan Studies are compulsory subjects; the Arts, Agriculture, Arabic, and Home-economics are considered minor subjects. From grade nine onward, three pathways are offered

41

for continuing to three broader fields of work, which are the sciences, the arts or humanities, and technical and vocational education. Traditionally, the sciences and math have been very core-content oriented subjects, mainly focused on preparing students for further studies; however, recent reforms have attempted to relate the subjects to students' daily life experiences and to develop students' problem-solving, inquiry, and reasoning skills (Ministry of Education Government of Pakistan, 2009a). Language and social studies mostly contain factual knowledge about the world (history, geography, and civics), and the content promotes the dominant ideology.

The infrastructure in the federal government schools usually meets the basic standards defined by the government, but it is poor in provincial schools. Many provincial schools lack classrooms, textbooks, drinking water facilities, toilets, electricity, gas, and playground facilities. Table 4 illustrates this state of affairs in the government schools (K-12), most of which are provincial government schools in Pakistan. Many provincial government primary schools, mostly in rural areas, are one-room or two-room schools, whereas middle schools (grades VI to VIII) and high schools (grades IX – X) mostly have enough classrooms to give single-class instruction. In addition, many of these schools lack facilities for game and recreational events.

Table 4: Facilities in Public Schools of Pakistan.

Physical Resource	No. of Schools Missing the Facilities	% of Schools Missing the Facilities
Building	12,374	7.5
Electricity	72,284	43.9
Drinking Water	53,115	32.2
Latrine	53,609	32.5
Boundary Wall	47,481	28.8
Building Dangerous or Needs Repair	63,053	38.3

Created by Author; Source: AEPAM Islamabad Report (2012).

Although some of the provincial government schools are considered to provide instruction that is equal to the federal government schools and the private schools, most of the provincial government schools are critiqued for their low quality of instruction (Zia, 2010; Khan, 1997; Warwick & Reimers, 1995). Teaching as telling and learning as remembering is the philosophy in most of these schools, which is reinforced through the traditional paper-pencil test based examination by provincial examination boards (Zia, 2010; Warwick & Reimers, 1995). The provincial education department recruits teachers who have K-12 education certificates for primary schools and an undergraduate degree for middle and secondary schools, whereas federal government schools recruit trained teachers who have an undergraduate degree for primary, middle, and secondary schools, and a master's degree for higher secondary schools. The federal government schools are affiliated with the federal board of examination, which is considered to conduct better and more rigorous exams than the provincial boards. Most of the federal government schools have learning resource centers, laboratories, and libraries, whereas many provincial schools lack such resources. Most of the provincial government schools enroll the children of low socio-economic working classes families (Fair, 2008), whereas the federal government schools mostly enroll children of the middle-class federal government employees.

Bureaucratic and politically-influenced administration in the provincial government schools is a major challenge for the proper functioning and progress of these schools. For the most part, the head teachers are appointed on the basis of a favor by the local politician, a member of the provincial assembly, or Tehsil Nazim or District Nazim. As soon as the government changes from one political party to another, or to the military, the head teachers of the schools change (Shah, 2003). Hence, the requirement to become a head teacher is not competence in planning, monitoring, facilitating teachers, work and leadership for school

improvement, but rather having the strong support of a local politician. In addition, the monitoring staff at district offices is also appointed based on favors by politicians (Hoodbhoy, 1998). Consequently the management and monitoring practices are highly politicized.

Another challenge for these schools is their deep-rooted traditional way of teaching. The teachers never use progressive student-centered ideas of teaching, because they believe such teaching is impracticable. The nature of textbooks, learning materials, assessment, and other resources also reinforce traditional approaches (Chang, 2006). Moreover, overcrowded classes, tightly packed with students, pose a challenge for teachers to provide individual attention. Hence, teaching is lecturing or note-dictating most of the time. According to the AEPAM Islamabad (2012) yearly data report, the average number of students per teacher for different school levels ranged from 25 to 37 students. This is a gross ratio; when accounting for the free periods of teachers, teachers on leave, and classroom non-availability constraints, the ratio goes up significantly. Hence, the actuality of provincial government school teaching means that a teacher usually deals with more than 40 students, mostly in multi-grade teaching. In addition, the shortage of textbooks, the late delivery of textbooks, and the late provision of salaries to teachers are some of the issues most of the schools encounter.

Military Schools

The military schools are the military-funded schools located in Pakistan's Army, Navy, and Air Force garrison areas across the country. These schools are established through grants from the federal government, as well as by welfare funds from the three branches of the military. Because the Pakistan Army is the largest military branch, it has largest number of schools (see Table 5). These schools emphasize the military ideology of "Moderate Islamic Nationalism" and discipline, as well as covering advanced level content in the core subject areas, such as science,

math, social studies, and language (English). They follow a mix of national curriculum and published international curricula (such as books/material published by Cambridge or Oxford University Press), and the curricula published by private organizations. The medium of instruction is English, and Urdu is taught as a second language in these schools (websites for information on these schools include : Pakistan Army, http://www.apsacssectt.edu.pk/, Pakistan Air Force, http://www.paf.gov.pk/school_colleges.html, and Pakistan Navy, http://paknavyschool.blogspot.com/2013/09/pak-navy-school-hanif-sre-sre-ii.html#). These schools usually have a high status because the graduates of these schools usually qualify in the entrance exams for high-ranked public or private university programs in the country or abroad, and they mostly qualify on the exams for officer-ranked military jobs.

Table 5: Military Schools in Pakistan

Military Schools	No. Schools	Enrollment	Teachers	Student per Teacher
Army Public Schools	134	134,296	7,831	17.1
Bahria (Navy) Schools	49	21,000	2,070	10.1
Pakistan Air Force (PAF) Schools	27	44,366	2,486	17.8
Cadet Colleges (grades 8-12)	28	18,200	---	---

Created by Author; Sources: APSCS Secretariat (2013), PAF Schools/Colleges (2013), & Pakistan Defense Cadet Colleges (2013).

These schools are quite rich in infrastructure. School buildings are well-constructed, following a similar model for all schools, which includes spacious and well-furnished classrooms, science laboratories, a computer laboratory, a library, teachers' staff room, conference rooms, playgrounds, learning resource rooms, toilets, a medical emergency room, a cafeteria, and offices for different purposes. All of the schools have electricity, telephone, gas, and drinking water facilities. These schools provide transport services to the students, teachers, and staff.

With regard to quality, these schools are considered among the elite schools of the country. The student per teacher ratio is half that of the national average, which indicates the affordability of the system. These schools provide instruction in English, and cover rigorous content in the core subject areas, so that their graduates are more likely to qualify in the entrance tests to get into some of the high-ranked public or private institutions of higher education. The teachers mostly have undergraduate or graduate degrees, and they come from commissioned officers' families, which are rich with dominant cultural capital. The teachers are also mostly trained in elite in-service teacher training schools or organizations, so they use better instructional strategies than teachers in government schools. These schools are generally affiliated with the federal board of examination, but students are allowed to take the O level (ordinary level) and A level (advanced level) UK-system based international exams, which many of them do. The students mostly come from the affluent classes, and from officer-ranked military personnel or high-salaried military personnel. Therefore, they can afford the advanced level learning resources required for the effective learning of students.

Private Schools

The private school system is divided into three different tiers. The highest level schools, mostly located in mega cities, serve the elite segment of the population, which is mostly comprised of industrialists and the business community, politicians (mostly feudal lords, tribal lords, religious leaders and capitalists), high-ranking bureaucrats in the public and private sectors, and high-ranking military officers. Middle-class private schools are located in urban areas or rural towns, and they are mostly populated by the children from middle class white-collar working groups, the small-business community, and small landlords/self-owned land farmers (Fair, 2008). The third level of private schools enrolls children of the low-income

working class, peasants, and daily-wage laborers (Andrabi & Das, 2008). Most of the private

schools are coeducational schools; however, a few of them have separate sections for girls and

boys. The teaching force is predominantly female, and the average number of students per

teacher is about 15 students. Table 6 illustrates the key indicators of the private schools.

Table 6: Key Indicators about All Types of K-12 Private Schools in Pakistan

All Type of K-12 Private Schools	Number	% in Total
Co-education Schools	56,909	87.6
Gender-based Schools	8,082	12.4
Schools in Rural Areas	30,340	46.7
Schools in Urban Areas	34,651	53.3
Male Teachers	161,467	25.3
Female Teachers	476,301	74.7
Girls' Enrollment	5,690,622	43.8
Boys' Enrollment	7,292,001	56.2
Students per Teacher	20.4	-----

Created by Author; Source: AEPAM Islamabad (2012).

Elite private schools. The elite private schools are located in urban areas, and they

provide contemporary world-class education. Contrary to military schools, they do not follow the

military philosophy. Most of them follow a more liberal ideology-based curriculum, since most

of them are affiliated with international examination boards such as Cambridge University,

Oxford University, Beacon House, and so on. An example of elite schools is Lahore American

School, which charges $10,065 (approximately equal to 1,000,000 Pakistani rupees) per student

annually (Lahore American School, 2013). The medium of instruction at the elite schools is

English, and the syllabus is mostly foreign published by such institutions as Cambridge

University, Oxford University, Montessori School System, and Beacon House School System.

The instruction focuses on activity-based methods and projects, inquiry-based tasks, and

problem-solving tasks, because these are part of the international curriculum which these schools

follow. The instruction and content are much more rigorous than in the government schools. The schools charge high fees in order to provide advanced learning materials and technologies to the students. The infrastructure is world class, including many entertainment facilities, such as playgrounds, indoor-game complexes, swimming pools, and theatres. These schools pay very high salaries, so they can hire highly qualified teachers, including foreign graduates or graduates from elite higher education institutions. The teachers are trained by well-reputed elite teacher education schools, and the schools have ongoing mechanisms for the professional development of teachers. The students can participate in federal examination board exams, in international exam boards, or in private exam boards (such as The Aga Khan Education Board). The students mostly come from the wealthiest 3% of the population, comprised of capitalists, feudal lords, tribal lords, politicians, high-ranked bureaucrats or military officers, and the wealthier religious leaders. The graduates of these schools mostly go abroad for university studies, or to the elite universities in the public and private sector.

Middle-class English medium schools. These schools are populated with children from middle class families, and they mostly follow a moderate democratic ideology. The curriculum is mostly a mix of materials from local private publishers and foreign publishers, such as UK-based Cambridge University or Oxford University. These schools are mostly located in urban areas, but recently there has been growth of such schools in rural areas, particularly in rural towns. They charge reasonable fees, and are therefore able to provide a good learning environment which is quite rich with learning resources. The physical infrastructure in these schools meets all basic requirements of a good school, including science laboratories, computer labs, library, electricity, drinking water, gas, and playgrounds. However, these schools lack some of the additional facilities that the elite or military schools have.

The quality of instruction at these schools is generally considered good, and sometimes it is claimed to be equal to some of the elite schools. Most of these schools are either affiliated with private examination boards, such as The Aga Kahn Education Board or the UK-based O level and A level Exams, or with the federal examination board; therefore, they cover rigorous content to prepare their students for those exams. Many of them, according to my observations, try to provide student-centered instruction, and they focus on critical thinking, inquiry, and problem solving skills. Most of them have school-based professional development mechanisms, as well as regularly conducted summer-break training. The students mostly come from socio-economically middle-class educated families, so they bring with them middle class cultural capital. Their graduates mostly go to colleges and universities for higher studies.

Second-tier private or NGO-run schools. These schools either follow government-published textbooks or a mix of some private-published textbooks and government-published textbooks. Hence, the dominant pro "Islamic Nationalism" ideology is mostly reinforced. Most of them give instruction in Urdu or in regional languages; however some of these schools try a mix of English and Urdu instruction. The infrastructure is not very good at these schools, yet they meet very basic requirements, such as classrooms (usually narrow and congested), drinking water, and electricity. Many of these schools do not have libraries, laboratories, playgrounds, or learning resource centers.

The quality of instruction at these schools is considered lower than at other private schools, but better than the government schools. The children come from the lower-middle class or low-income working class families. The teachers are not well-qualified, and most of them do not possess any teaching certificate. These schools do include math and science as core subject areas, but many of them lack qualified teachers to teach these subjects. Teaching is most of the

time telling. Learning means remembering and following what is required in provincial examination boards. These schools mostly are affiliated with regional government examination boards.

Many of the middle-class English medium schools function very well. However, some of these schools pay low salaries to teachers. Consequently, the teacher turnover ratio remains high in these schools. One of my students, who has worked as a private school teacher since 2006, has left three schools in four years, mainly because he got a better salary in the next school. Some of the middle-class English medium schools over-emphasize discipline and strictly limit students' experiences to the mandated syllabus, or they prepare the students for exams (mostly tests). Although these schools arrange different programs to engage students in creative activities, such as drama, singing, dancing, and giving speeches, many of these schools do not offer regular music or creative arts classes.

The small level private schools or NGO-run schools are struggling with many problems. The quality of instruction is quite low because teachers are academically and professionally less qualified, and these schools follow a traditional curriculum (Andrabi and Das, 2008). Teachers are also low-paid, with monthly salaries that are sometimes so low that they are equivalent to the one-day salary of an elite school teacher or government school teacher (government school teachers usually have good salaries because of the general seniority-based salary structure of the government). These schools struggle with low incomes of school stipends, and they cannot provide facilities or better salaries. Student absenteeism is a common problem. School administrators usually complain about parents not paying fees on time, or withdrawing their students because of overdue fees. Some of the NGO-run schools create a relatively better environment, but many of these schools also have shortages of resources. Their teachers are also

less qualified. Many of these schools are closed because donors have cut-off or reduced the funding.

Madaris or Religious Seminaries

These schools follow the ideology of the particular Islamic sect they are affiliated with. Many of these promote radical Islamic beliefs, as defined by their particular sect. They have their own curriculum, defined along the lines of their particular sectarian philosophy. Many of them do not include science, math, and social studies, considered to be liberal subjects. Some of these schools promote extremist views against other sects and the moderate or liberal segments of society.

The infrastructure in the Madaris varies from basic to very rich. Most of them get funding from their particular organization or from foreign donors, such as groups from Middle Eastern countries, or the people of their organization working in developed countries. They provide boarding facilities, clothing, and stipends to the students; therefore many of the working class low-income families send their children to such Madaris because they cannot afford the fees and other expenses at the private schools or at government schools.

SECTION 3: OVERVIEW OF HIGHER EDUCATION IN PAKISTAN

All the education after K-12 is considered higher education in Pakistan. The institutions of higher education can be divided into three broader categories: General and Specialized Universities and Institutions, Degree Colleges, and Vocational and Technical Colleges/Institutions. Although higher education mostly consisted of public institutions until 1980, the last two decades have seen a significant growth in private institutions. Table 7 illustrates the key indicators of the institutions of higher education, in both the public and the

private sectors. As illustrated, public sector institutions still have significantly higher enrollments than private institutions, except for the technical and vocational institutions. Public universities/institutions generally charge fewer fees than private institutions, which appears to be the major reason for the higher enrollment in public institutions. Another significantly noteworthy indicator is enrollment in teacher training institutions, which consists of one-fourth of all enrollments in the higher education institutions of Pakistan. This appears to be an unusually high proportion. Teacher training will be analyzed and discussed thoroughly in the findings and discussion chapters.

Table 7: Key Indicators about Institutions of Higher Education in Pakistan

Type of Institution	Number	% of Total in Category	Enrollment	% of Total in Category	% of Total Enrollment
Public Universities	79	56.8	1,130,143	85.6	40.4
Private Universities	60	43.2	189,656	14.4	6.8
Public Degree Colleges	1,270	91.8	461,767	92.9	16.5
Private Degree Colleges	114	8.2	35,385	7.1	1.3
Public Technical & Vocational	977	30.0	126,458	43.6	4.5
Private Technical & Vocational	2,280	70.0	163,322	56.4	5.8
Public Teacher Training	155	82.0	687,792	99.3	24.6
Private Teacher Training	34	18.0	4,900	0.7	0.2

Created by Author; Source: AEPAM Islamabad (2012).

Generally, universities and their affiliated colleges are autonomous bodies; however the Higher Education Commission of Pakistan, under the control of the federal government, plays a somewhat regulatory and monitoring role. In the following sections, I present an overview of the three categories of institutions of higher education and the role of the Higher Education Commission of Pakistan.

Universities/Degree-awarding Institutions and Degree Colleges

Universities and degree-awarding institutions usually offer bachelor (undergraduate) to Ph. D. and post-doctoral level programs in various fields of general academic and specialized professional and technical areas/disciplines. K-12 school graduation is a requirement to be accepted into a bachelor level program. Higher education is still at the initial stages of development in Pakistan, so general universities cover many disciplines in the natural/physical sciences, social sciences, and humanities, whereas specialized universities/institutions cover one of the six major professional areas: medicine, law, business, agriculture, engineering, and education. Higher education institutions for the military are totally separate from public universities. As per the updates of the Higher Education Commission of Pakistan (2013), the public sector and the private sector consist of 84 and 67 universities/institutions, respectively. Unlike K-12 schools, most of the universities/institutions are coeducational institutions. Public degree colleges are administered by the provincial or federal departments of education; however they are affiliated with the general public university in the region, and they follow the curriculum and evaluation practices of the university.

Universities/institutions which are registered and which function under provincial governments are assigned to serve a population in a particular region of the province; private and federal government universities are open to nationwide intake of students. The President of Pakistan and governor of each province serve as heads of federal and provincial public universities/institutions, respectively, which indicates the strong political involvement in public institutions. Further, each university/institution is headed by a vice-chancellor (as chief administrator), who is appointed by the chancellor on the recommendation of the board of governors or the syndicate of a public university.

Generally, the rural areas are discriminated against in education, and higher education is relatively more discriminatory to the rural population; as is obvious in Table 8, an overwhelming number of degree colleges are located in urban areas. In terms of gender-equity, public universities indicate a slightly higher enrollment of girls and a lower enrollment of girls in degree colleges, whereas girls are advantaged in private degree colleges, and they are significantly disadvantaged in private universities. Nonetheless, overall academic and professional higher education is more gender-balanced (48% girls and 52% boys as per figures by AEPAM Islamabad, 2012) than K-12 school education in Pakistan.

Table 8: Comparison of Institutions and Enrollments by Region, Gender, and Sector

Type of Institutions	Number in Rural	% of Rural in Total	Number in Urban	% of Urban in Total	Number of Boys	% of Boys in Total	Number of Girls	% of Girls in Total
Public Degree Colleges	68,237	15.4	375,872	84.6	247,961	55.8	196,055	44.2
Private Degree Colleges	3,920	11.1	31,465	88.9	12,822	36.2	22,563	63.8
Public Institutions	---	---	---	---	554,762	49.1	575,381	50.9
Private Institutions	---	---	---	---	122,839	64.8	66,817	35.2

Created by Author; Source: AEPAM Islamabad (2012).

Teacher education is offered in both university departments and teacher training colleges. Like the degree colleges, teacher training colleges are administered by provincial government departments of education, but these are also affiliated with the university in the region of its operation, and they follow the curriculum and evaluation practices determined by the university. Moreover, many separate public and private institutions offer short in-service training and professional development programs. An historical overview of the development of teacher education and its current landscape is presented in a separate section.

Technical and Vocational Institutions

Technical and vocational institutions offer two to three-year diplomas to produce skilled workers for industry and the related service sector. All diplomas are offered to K-12 graduates, and they could lead to bachelor programs. The technical institutions are divided into two categories: Monotechnics, which offer diplomas in one area, and Polytechnics, which offer diplomas in several areas. The monotechnic and polytechnic institutions mostly offer mechanical and electrical diplomas. Enrollment in these institutions is heavily skewed towards males, as illustrated in Table 9, which reflects the traditional view that mechanical jobs are masculine in Pakistani society. However, vocational institutions have gender-balanced enrollment because these institutions offer diplomas in many handicraft areas, which are traditionally considered a female domain of work.

Table 9: Enrollment in Technical and Vocational by Gender and Institution Type

Enrollment in Institutions	Male	% in Total	Female	% in Total
Monotechnic	64,254	95.1	3,296	4.9
Polytechnic	6,301	87.8	877	12.2
Vocational	109,926	51.1	105,126	48.9

Created by Author; Source: AEPAM Islamabad (2012).

SECTION 4: HISTORICAL AND CURRENT OVERVIEW OF TEACHER EDUCATION IN PAKISTAN

The roots of teacher education in Pakistan can be traced back to the origins of modern education, including teacher education, established in British India in the mid-nineteenth century. This section provides a brief historical overview of the development of teacher education programs and policies in Pakistan.

Teacher Education in British India

Teacher education was introduced in British India, including the parts that became Pakistan, in 1947, in the mid nineteenth century, and it was based on the British model of post-academic training courses/programs. According to Siddiqui (1991), two institutions of teacher education were established in Karachi and Lahore, which became normal schools in 1854. These institutions began offering Junior Vernacular (JV) programs. Since most of the education institutions were basic education institutions by that time, all the teachers were provided the same kind of general training. However, as education developed into levels of schooling, more institutions and programs were added to teacher education. According to Siddiqui (1991), "In 1947 when Pakistan came into being, Junior Vernacular (JV), Senior Vernacular (SV), Certification in Teaching (CT), Oriental Teacher (OT), and Bachelor in Teaching (BT) were the programs for training of the teachers for different stages" (p. 21). All of these programs were post-academic, somewhat similar to what Schwille, Ingvarson, and Holdgreve-Resendez (2013) described as consecutive programs – programs based on two phases of postsecondary education, in which specialized subject-matter credentials and pedagogy and practicum credentials are acquired separately. Among the five programs, OT and BT required more specialized subject-matter education, whereas other programs were general in nature.

Overview of Teacher Education after the Establishment of Pakistan

Although most teacher education was initially based on the British model of post-academic degree training, teacher education developed in a variety of ways, including a recent rapid growth of market-model programs and private sector in-service programs. Three different periods depict three distinct developments and changes in the teacher education landscape of Pakistan. The first period was mostly a continuation of the British model and its further growth

and expansion. The second period began after the partition of East Pakistan (present-day Bangladesh), which showed changes in programs and the establishment of an open and distance learning university which offered teacher education programs. The third period began in the 1990s, with the rapid growth of market-model programs, the establishment of many in-service professional development courses and programs, and the initiation of new reforms such as four-year honors programs.

Period I: 1947 to 1973. In 1947, Pakistan inherited the British model of teacher education from British India, which consisted of twenty-seven institutions for preparing primary and middle school teachers, and six institutions for preparing secondary school teachers (Hoodbhoy, 1998). Pakistan went through a constitutional crisis in the first two and a half decades of its establishment, which included two military dictatorships and a few short-term civilian governments (Hoodbhoy, 1998). However, as Pakistan was politically aligned with the American-block during the cold-war period, the education system, including teacher education, was influenced by the education system of the United States. Hence, normal schools were changed into two different types of institutions: Government Elementary Colleges of Education (GECE), for preparing elementary and middle school teachers, and Government Colleges of Education (GCE), for preparing secondary school teachers. In addition, several universities established departments of education, which offered bachelor's, master's, and doctoral level programs. While in the beginning the universities mostly offered academic type programs, whereas the government colleges of education (GCEs) provided specifically post-academic teacher training programs, gradually some universities also began offering teacher training programs. The GECEs offered two types of post-academic teacher training (preparation) programs: the Primary Teaching Certificate (PTC), for primary teachers, and the Certificate in

Teaching (CT), for middle school teachers. The GCEs offered Bachelor of Education (B. Ed.) and Master of Education (M. Ed.) programs. Because of the limited number of these institutions, most of the enrollment in these programs consisted of in-service teachers, who were offered enrollment on a seniority basis, and they usually worked several years as untrained teachers before enrolling in one of these programs.

The curriculum and structure of these programs (except the M. Ed. program, which is focused on advanced studies) were somewhat similar: all of these programs consisted of educational foundations, education psychology, measurement and evaluation, subject-specific pedagogy/methods courses, and two months of practice teaching (practicum) equal to two courses. However, the level of study varied in each program, in order to cater to the specific needs of teaching at specific age-levels, the nature of subject material at certain levels, and school structures. Moreover, PTC and CT were generalist programs, whereas the B. Ed. program required specializing in at least two subject areas: one in the languages or social sciences or arts, and the other in the natural sciences or mathematics. Since Pakistan followed a unitary government system, for the most part these programs were mostly the same across the different regions of Pakistan, including East Pakistan (present-day Bangladesh), until 1971, with the separation of East Pakistan.

Period II: 1973 to 1990. The analysis of this period shows many variations in teacher education programs, including slightly different structures of programs, different curricula, different organization of teacher education institutions in different provinces of Pakistan, and the establishment of a federal open and distance learning university. Moreover, many in-service teacher training institutions which offered refresher courses for in-service trained teachers were established.

Political and constitutional changes after the separation of Bangladesh (previously East Pakistan) in 1971 changed the governance of education from a strongly centralized subject to a provincial subject, including teacher education. The new constitution of Pakistan, approved in 1973, changed Pakistan into a federation of four somewhat independent provinces (Sindh, Punjab, NWFP – presently KP, and Baluchistan) and four federally administered areas/territories (FATA, FANA – presently Gilgit-Baltistan, Azad Kashmir, and Islamabad). Many of the areas of governance were made provincial subjects, including education; however, the federal government kept the role of providing policy-level guidance and overseeing the education systems to ensure that education in all the provinces and federal territories were aligned with national goals. Hence the provincial education systems, including teacher education, developed somewhat varyingly in different provinces; however, the overall program structure and curricular goals remained similar across provinces. This period also included the initial establishment of the private sector and in-service training (professional development) programs for teachers.

Although teacher education, under the umbrella of the federal policy guidelines and the federal overseeing body of higher education, remained similar across the provinces, this period showed some variations, especially in terms of the provincial organizational structures of governing bodies, and the accreditation of degrees. Each province had a slightly different organizational set-up to manage and monitor teacher education institutions; however, the administration remained provincially centralized and politically-influenced in each province (Hoodbhoy, 1998). While the management and governance of public teacher education institutions remained under provincial governments in all provinces, the monitoring of the academic and evaluation aspects of GCEs were assigned to the regional public universities in at least two provinces. Similarly, the GECEs (or corresponding colleges/institutes) were

administered under the education department of each provincial government, but their academic and evaluation bodies were region-based in two provinces. Teacher education in the territories under federal government remained the same across different territories.

Two other major developments in this period included the establishment of a federal university in an open and distance learning mode, Allama Iqbal Open University (AIOU) Islamabad (established in 1974, as per AIUO Islamabad, 2014), and provincial institutes for in-service trainings, called a Provincial Institute of Teacher Education (PITE), in each province. This was the beginning of in-service teacher training in Pakistan; however, the nature and period of training for teachers varied across provinces. AIOU Islamabad also opened regional centers in each province and in the federal territories, and it began offering teacher education programs for all levels of teachers in an open and distance learning mode. AIOU Islamabad's teacher education programs began growing in the early 1980s. Enrollment, however, remained limited because the fees were minimal and the institution depended on funding from the federal government.

The curriculum and structure (courses and practicum component) for almost all levels of the teacher education programs remained the same across the provinces because the curriculum guidelines were set forth in federal policies and were overseen by the federal institution – the University Grants Commission of Pakistan (which later became the Higher Education Commission of Pakistan). However, following the overall wave of Islamization of education in General Zia's thirteen year dictatorship, many Islamic subjects were introduced in teacher education as well. Moreover, programs by provinces and federal government institutions, particularly by AIOU Islamabad, varied in mode of instruction and curricular materials. AIOU Islamabad offered all levels of teacher education programs in open and distance learning modes,

and it provided a set of books and other materials to the enrollees, whereas the syllabi and course

materials in programs offered by some provincial institutions were designed by the faculty, to

some extent, under the overall curriculum guidelines of the university they were affiliated with.

Hence, the selection of books and other course materials varied across institutions as well as

across provinces. Moreover, some provinces offered semester-based programs, whereas others

offered annual programs (year-long courses). Overall, this period was the beginning of variations

in teacher education in Pakistan.

Period III: 1990 to the present. Many significant changes occurred in this period, and

continue to occur, including the growth of the private sector and market-model programs, the

growth and variation in in-service training programs, further variations across provinces, and

several reform programs initiated by government and international organizations. In this period,

distinctly teacher education policies were issued by the federal government, and the national

accreditation council and national professional standards were developed for teacher educators

and teachers. These changes are analyzed briefly in the following section.

As described in the earlier parts of this chapter, the last two decades have seen the rapid

growth of the private sector and the marketization of education in Pakistan, resulting in a huge

number of entrepreneurial-based schools, colleges, and universities, as well as the growth of

market-model in-service and pre-service programs. After Zia's military dictatorship ended in

1988, newly elected governments, under pressure from global/international organizations (such

as the IMF, The World Bank, and other donor agencies), initiated privatization and

decentralization policies (Ali, 2009; Ahsan, 2005), which resulted in the growth of the private

sector in all sectors, including social services such as health and education. Because the private

sector institutions used market-based approaches, this competition-based environment spurred

public institutions to adapt market-based approaches as well, and they began offering market-model programs, including teacher education institutions. Another global push (by many international organizations, since the early 2000s) for institutional independence and self-reliance, especially financially, led to policy changes for higher education in Pakistan, resulting in the establishment of the Higher Education Commission of Pakistan (in place of the University Grants Commission) and in policies allowing public institutions to operate somewhat independently (as per NEP, 1998-2010), competing in the market to generate their own funds. Hence, the higher education institutions began offering many programs on a self-finance basis without any public funding. This led to the adaptation and creation of many market-model programs, including off-campus teacher education programs, by regular public teacher education institutions. Ironically, these programs performed well in the market; therefore, many non-teacher education institutions (such as agriculture universities, business schools) began offering these programs to generate funds for their institutions. Because many in-service teachers were untrained -- an analysis of data published by AEPAM Islamabad (1995) showed that 18% teachers were untrained in Pakistan in 1995 -- the programs offered by non-teacher education institutions were justified as needs-based to cope with the prevalence of a huge number of untrained teachers. However, these changes had many significant effects on the quality and effectiveness of teacher education programs.

The growth of market-model off-campus programs affected the quality of teacher education and resulted in concerns raised by many teacher educators in regular teacher education institutions, as well as by AIOU Islamabad, which offered off-campus programs in open and distance learning modes. The outcry by regular teacher education institutions against the poor quality of off-campus programs offered by non-teacher education institutions resulted in HEC

intervention, which terminated the programs in most of the non-teacher education institutions; however, the per year enrollment was restricted for GCEs and GECEs. This situation benefited AIOU Islamabad, and its market-model off-campus programs have experienced disproportionate growth. Because the first census of education was done in 2006, the proper data about enrollment in off-campus programs offered by AIOU Islamabad and other institutions is not available before the census. However, as estimated by some reports, about two-thirds of the teacher education programs were offered as off-campus market-model programs since the late 1990s.

This out-of-proportion growth of market-model off-campus programs resulted in strong criticism from scholarly circles as well as from schools, which led to significant teacher education policy and program reforms. The National Education Policies (NEP) of 1998-2010 and 2009 contained a specific chapter on teacher education and teaching quality. A major reform initiative was taken by the government of Punjab in 2002, by establishing the "University of Education Lahore," and then affiliating all GCEs and GECEs with this university within a few years. This university began offering four-year teacher education programs (B. Ed.) for K-12 graduates, and other long-term programs. Following the reform policy, the government of Pakistan launched the Pre-Service Teacher Education Project (Pre-STEP) in 2006, with funding support from USIAD; this reform program, which is still in progress, is a large-scale program to develop the capacity of the fifteen public sector universities to enable them to offer four-year post K-12 teacher education programs for elementary teachers. The federal government has made a commitment to the new education policy (National Education Policy 2009) that all other kinds of programs shall be replaced by four-year honors programs by 2018. Nonetheless, many teacher education institutions, particularly AIOU Islamabad, continue to offer regular and off-campus (market-model) traditional programs.

In addition, many short-term and long-term teacher education programs were developed by private institutions, ranging from three-month programs to four-year programs, mostly for in-service teachers from the private sector. Some of the big school organizations (such as Aga Khan Education Service Pakistan, The City Schools, and Grammar Schools) established their own teacher education institutions (or professional development centers), which offer a variety of in-service programs for teachers working in the schools of the respective organizations. Recently, some of these institutions have opened admissions to out-of-system candidates. As these institutes charge significantly higher fees, mostly teachers from elite and affluent-class schools enroll in these programs. These institutions also have been collaborating with the government in reform programs for the professional development of in-service public school teachers, largely funded by foreign donors.

Current Landscape of Teacher Education in Pakistan

The current landscape of teacher education in Pakistan can be divided in three broader categories of program offerings: traditional programs offered for both in-service and pre-service teachers, pre-service teacher preparation programs, and in-service professional development programs. Table 10 provides an overview of all kinds of teacher education programs in each category. Traditional programs are the post-academic long-standing programs which are offered by public and private institutions to prepare teachers at three levels of schools – primary, middle, and secondary schools. Most of the teacher education institutions offer these programs except a few private institutions, which offer alternative in-service certificate and diploma programs. Initiated in the mid 2000s, pre-service teacher education programs are offered by selected institutions of education; however, these programs are continuously growing. These programs require a K-12 certificate and entry exams, and they are offered only in the on-campus mode.

Table 10: All Kinds of Teacher Education Programs in Pakistan

Combined Post-academic Programs (for In-service and Pre-service Teachers)			
Program	**Pre-requisite, Mode of Offering**	**Salient Features**	**Offered by Institutions**
Primary Teaching Certificate (PTC) for primary teachers **Certificate in Teaching (CT)** for middle school teachers	K-12 Certificate On-campus Off-campus Colleges:1 year University: 1 ½ years	10 courses (30 credits) 4 weeks of practice teaching (only in on-campus programs) Mid-term exams Final qualification exams	Government and Private Elementary Colleges of Education and Institutions
Bachelor of Education (B. Ed.) To prepare secondary school teachers	Bachelor Degree On-campus Off-campus Colleges:1 year University: 1 ½ - 2 years	10 courses (30 credits) 4 weeks of practice teaching (only in on-campus programs) Mid-term exams Final qualification exams	Government and Private Colleges of Education and Universities
Pre-service Programs (New reforms based, mostly funded by USAID)			
Associate Degree in Education (ADE) To prepare elementary teachers	K-12 certificate On-campus Colleges/University: 2 years (3 years in Punjab)	67 to 80 credits: liberal arts, professional, content, and foundational courses 6 credits of practice teaching Mid-term exams Final qualification exams	Government and Private Elementary Colleges of Education and Universities
Bachelor of Education (Honors) B. Ed. To prepare elementary and secondary school teachers	K-12 certificate On-campus Colleges/University: 4 years (5 years in Punjab)	135 to 155 credits: liberal arts, professional, content, and foundational courses 15 credits of practice teaching Mid-term exams Final qualification exams	Government and Private Colleges of Education and Universities
In-service Programs			
Certificate Courses To prepare teachers, trainers, and managers	In-service teachers On-campus and school-based 3 to 6 months long	Focus on updating concepts and teaching skills	Mostly in private school systems
Diplomas To prepare teachers, trainers, and managers	In-service teachers Combined: on-campus and school-based 1 to 2 years	Specialization in teaching a subject area or teacher training in a subject area	Mostly in private school systems

The in-service programs are mostly offered by private institutions and were established to cater to the needs of private school systems. These programs mostly focus on one specific area of teaching or teacher training or administration. Recent reforms in government sector, mostly funded by foreign donors, also have focused on professional development of government teachers through these programs, in public-private collaboration.

Hence, the current landscape of teacher education in Pakistan presents a mixture of various kinds of teacher education programs being offered, parallel to the market-model off-campus and traditional post-academic regular programs in public institutions, for both in-service and pre-service teachers. The program durations range from three-months to five years in both the public and the private sector; the market-model programs are offered in both off-campus and regular modes for both in-service and pre-service teachers; the curriculum varies across programs in terms of concentrations and specializations; and the structure of the programs also varies in terms of various requirements for face-to-face sessions and practicum requirements. On top of this, current education policy (NEP 2009) suggests the replacement of all kinds of programs with the newly initiated four-year honors post K-12 programs for pre-service and untrained in-service teachers. This policy also suggests that all already trained teachers should take professional courses to meet the national standards for teachers. Obviously, there is need for legislation to enact the policy provisions, which seems slower than what is needed by the political governments. Further, there is a need for research in different areas to inform current and future policy and program reforms.

SUMMING UP

Overall, the educational context of Pakistan shows some progress over time; however, it depicts a relatively low achievement in the region, and it heavily advantages male, urban, and

socio-economically affluent segments of society. Different parallel school systems for different ideological segments of the society make education a source for the reinforcement of fragmentation of the society based on ideology (mainly religious and political), socio-economic class, and cultural divisions between urban and tribal-influenced rural areas. These situations call for significant policy and structural changes, in order to make education equally accessible to all and a medium for the progressive development of society.

CHAPTER IV

METHODS

This study is an extensive exploration of market-model teacher education policies and programs in a southern province of Pakistan. The methods used for this exploration were both qualitative and quantitative approaches. This chapter includes a description of the research approaches used, including the sample design, the selection of research participants, the procedures for data collection and data analysis, a description of ethical considerations, and the limitations of the study.

SECTION 1: MIXED-METHODS APPROACH

Qualitative and quantitative techniques were used to carry out this research in eight public institutions of teacher education in a southern province of Pakistan. Although all the research questions could be answered by either qualitative or quantitative data, some of the questions could be better answered by qualitative data, whereas others could be better answered by quantitative data. That is why Majchrzak (1984) claimed that "… an ideal combination is to use both qualitative and quantitative" (p.66) approaches, in order to answer research questions comprehensively. For example, questions to explore the understanding of participants about the higher education policy (based on National Education Policy 1998-2010 and Education Sector Reforms 2001) which allowed market-model teacher education programs and its impact seemed more appropriate for somewhat open interactions with the participants. Consequently, participants' views and perspectives were explored through interviewing in a focused-group setting and in an individual setting. These interviews provided most of the qualitative data. In addition to interviewing, document analysis was carried out to understand the higher education policy which allowed market approaches and its implementation. The document analysis

provided descriptive qualitative data, particularly about specific aspects of the policy and the resulting market-model programs. In addition, because answering the research questions pertaining to the implementation of different aspects of the teacher education programs required systematic and comprehensive measures of different categories of the programs, "surveying" was an appropriate strategy to collect the required data. The surveys and national data-base reports provided the quantitative data.

Sample Selection

A representative survey sample was drawn by using a stratified random sampling strategy; however, a purposive interview sample was drawn by using a purposive sampling strategy. Four important factors were taken into account to sample institutions and participants, which included different regions, urban and rural population groups, the gender of participants, and program type (regular and off-campus). A stratified random sampling strategy is considered better in such cases because drawing a random sample from each strata of the population increases the accuracy of estimates (Ott & Longnecker, 2010). Demographically, the province of the study is divided into three different regions, called Lower, Middle, and Upper, which represent somewhat different population groups in terms of culture and ethnicity. All three regions have urban and rural population groups. Public institutions of secondary teacher education among the three regions, which serve both urban and rural population groups, were included in the sample. Moreover, since this study focused on market-model off-campus programs offerings and their effects on the implementation of the regular programs, as well as on the overall effectiveness of teacher education in the region, the sample also included participants from regular and off-campus programs in each of three regions. To insure gender balance, a balance of coeducational and gender-based institutions for males and females was selected from

each region; the institutions varied in terms of the gender of participants and their program offerings. Table 11 below provides a detailed view of the categorization of the institutions which were included in this study.

Table 11: Overview of Institutions Included for Sample Selection from the Three Regions of the Province

Region	Institution Type	Gender (for)	Programs Offered
Upper	Government College of Education	Coeducation	Regular
	Public University (PU)	Coeducation	Regular
	Federal Open University Center	Coeducation	Off-campus
Middle	Public University (PU)	Coeducation	Regular/Off-campus
	Federal Open University Center	Coeducation	Off-campus
	Provincial Institute of Education	Coeducation	Regular
Lower	Government College of Education	Coeducation	Regular
	Government College of Education	Female	Regular
	Government Elementary College of Education	Female	Regular

Description of the Programs

The two types of programs included in this study were different in many significant ways. The following descriptions should help in understanding these differences between the programs.

Regular programs. The programs referred to as "regular" teacher education programs in this study are the post-baccalaureate Bachelor of Education (B. Ed.) programs for preparing secondary school teachers, which are offered in an on-campus mode and require students to attend a number of hours (credit hours) of face-to-face classes and field experiences. Students are taught by permanent faculty at each institution, including lecturers, assistant professors, and professors. These programs follow the national curriculum guidelines set by the Higher Education Commission of Pakistan; however, the syllabus is designed by each

university/institution, and it is flexible in order to absorb some course material variations by the faculty. The university-offered programs are three semesters long, whereas the college-offered programs are usually one year long. Examinations usually have two main components -- completion of assignments during the semester and an end-of-semester exam, which is mostly a three-hour sit-down exam for each course.

Off-campus programs. The programs referred to as "off-campus" (market-model) teacher education programs in this study are the post-undergraduate Bachelor of Education (B. Ed.) programs for preparing secondary school teachers which are offered in an off-campus mode and do not require attending face-to-face classes or field experience. There is no permanent faculty; however, in-service high school or middle school teachers are hired part-time to conduct weekly, bi-monthly, or monthly instructional/guidance sessions. In the case of the Federal Open University, there are no sessions except an end-of-term three-hour workshop. These programs also follow national curriculum guidelines set by the Higher Education Commission of Pakistan; however, the syllabus is designed by each university/institution, which allows these institutions to set activities and requirements according to their convenience or market interests. Students are usually provided institution-published short text books as reading material. In the case of the Allama Iqbal Open University (AIOU) Islamabad, course text books are relatively more comprehensive; however, examination requirements are similar to other off-campus programs, which include assignments during the semester and an end-of-term exam. Universities, including the Federal Open University, break the program into three semesters, whereas colleges offer a one-year annual program.

Research Participants

Following the sampling criteria and the strategy described earlier, three types of participants were selected as research participants: one coordinator of the teacher education program or chair of the department at each institution; five senior faculty members at each institution; and forty to forty-five graduating students from each of the two types of B. Ed. programs (regular and off-campus), at eight public institutions of teacher education. Because of funding and time constraints, the participants were selected from only the secondary teacher education/preparation programs. All three regions have two types of public teacher education institutions: Government Colleges of Education (GCEs), and departments/faculties at Public Universities, both of which offer secondary teacher education programs. In addition, there is a provincial institute of education which offers in-service professional development courses as well as B. Ed. programs. Two public universities, four government colleges, and the provincial institute were included in the study to represent all the demographics of the province. The public universities in the lower region did not participate in the study; however, the sample in this region met the criteria described earlier.

In each institution, approximately forty-five final-semester or graduating students were randomly selected as survey participants from their secondary teacher education programs. Although the number of total students at each institution varies, randomly selecting forty-five students from each institution provided a statistically significant number required to calculate robust estimates/indicators (Ott & Longnecker, 2010). All the faculty members at each institution participated as survey participants. Because the number of faculty members usually was below thirty (a number required for making robust estimates) at the teacher education institutions in Pakistan, including all faculty members for the survey maximized the number of participants,

which increased the credibility of estimates and analysis. The survey completion rate by students and faculty varied slightly among the institutions, but more than thirty students returned completed surveys from each institution. Overall, 80% of the sample (both students and faculty) returned acceptable completed surveys. Table 12 provides a detailed overview of the number of participants who returned acceptable completed surveys.

Table 12: Overview of the Surveyed Research Participants

Region	Institution (Program)	Regular Program			Off-campus Program		
		Chair	Faculty	Sts	Chair	Faculty	Sts
Upper	GCE	01	17	36	00	00	00
	Public University	01	13	37	00	00	00
	FOU Center	00	00	00	01	11	32
Middle	Public University	01	19	42	01	16	39
	FOU Center	00	00	00	01	13	34
	Provincial Institute	01	09	29	00	00	00
Lower	GCE 1	01	18	42	00	00	00
	GCE 2	01	07	38	00	00	00
	GCE 3	01	11	32	00	00	00
Total		07	94	256	03	40	140

Note: GCE = Government College of Education, FOU = Federal Open University, Sts = Students

Moreover, for the interview data, a purposive sampling strategy was used to identify the participants of the study. Remler and Van Ryzin (2011) described purposive sampling as "…choosing people who have a unique perspective or occupy important roles or selecting individuals or artifacts to represent theoretical categories or considerations" (p. 156). Since this study focused on exploring the perspectives of the participants about the impact of policy on the implementation of the teacher education programs, it was reasonable to use a purposive sampling strategy to identify the participants with relevant backgrounds. Thus the interview participants for this study, which included a chair/coordinator and senior faculty, were purposefully selected

from the ten teacher education programs (seven regular and three off-campus programs) offered

by the eight public institutions of teacher education. See Table 13 for an overview of the

interview participants.

Table 13: Overview of the Interview Research Participants

Region	Institution (Program)	Regular Program		Off-campus Program	
		Chair	Faculty	Chair	Faculty
Upper	GCE	01	05	00	00
	Public University	01	05	00	00
	FOU Center	00	00	01	04
Middle	Public University	01	05	01	05
	FOU Center	00	00	01	04
	Provincial Institute	01	04	00	00
Lower	GCE1	01	05	00	00
	GCE2	01	04	00	00
	GECE	01	04	00	00
Total		07	32	03	13

Note: GCE = Government College of Education, FOU = Federal Open University,

Surveys were conducted with each participant; however, individual interviews were

conducted with the program coordinator/chair of the department, and focus-group interviews

were conducted with five senior faculty members (four subject coordinators in four core subject

areas and one with a policy background) from each program at each institution. Because these

participants were considered to be directly involved with the implementation of the program,

they needed to be interviewed about their understanding of the policy and its impact on program

implementation.

SECTION 2: DATA COLLECTION

As discussed earlier, a mixed-methods approach was used in this study, and, accordingly,

different data collection tools were used to collect both qualitative and quantitative data. Three

strategies were applied: "document analysis," "surveying," and "interviewing." While most of

the quantitative data were collected through surveys, a significant amount of quantitative data was also obtained from national data-based reports published by the federal government. In addition to the individual and focused group interviews, document analysis also provided qualitative data.

Document Analysis

As is well-established, some research questions can be answered well through analysis of authentic contemporary and historical documents (Remler & Van Ryzin, 2011). The question regarding how the policy is described and rationalized by policy makers (governments in this case) can be answered by analysis of the relevant government and institutional documents. Here, the documents related to the previous as well as current teacher education policies, mostly established by the federal government as national policy/program guidelines, were analyzed to understand and describe the rationalization of the policies and programs. More specifically, the document analysis included national education policies since 1992, institutional teacher education program descriptions (prospects), and national educational reform plans/programs since 1992. Three national education policies (NEPs) have been in effect since 1992: NEP 1992, NEP 1998-2010, and NEP 2009. All of these policies contained a specific chapter or part on teacher education or teacher quality. In addition, since the higher education reforms under NEP 1998-2010 brought significant changes in higher education in Pakistan, documents describing the Higher Education Commission (HEC) of Pakistan were analyzed. The market-model off-campus teacher education programs/policies were a result of Pakistan's HEC policy of allowing universities to offer self-financed programs, including off-campus programs, to generate institutional funds. Moreover, institutional documents which describe curriculum and other

program activities were analyzed with regard to curriculum concentration and focus in the programs. Analysis of all of these documents provided qualitative data.

In addition to descriptive documents of different policies and programs, government-published national data reports (administrative data) were analyzed to establish patterns of growth and enrollment in different program offerings in the last two decades. The Academy of Educational Development and Planning (AEPAM) Islamabad, under the federal government's ministry of education and training, has been publishing annual reports of national data on education since 1995, which provide significant data on teacher education program offerings and patterns of growth, as well as contrasting the consumption of graduates in the system. These reports provide mostly compiled quantitative data, which was further analyzed to develop descriptive indicators. Document analysis provided both qualitative and quantitative data to answer different research questions in this study.

Surveys

Surveys are an important and efficient tool to collect a wide range of measures from a reasonably larger number of participants, which increases reliability and the prospects for generalizing the results (Ott & Longnecker, 2010; Agresti & Finaly, 1999). Benefiting from these strengths of surveys, this strategy was used to collect data from a reasonably significant number of participants, as illustrated in the tables given earlier. Each type of participant was given a separate survey: an "institutional survey" for chair/coordinators, "faculty survey" for the faculty members, and "student survey" for graduating students at each institution. The surveys were adapted from the TEDS-M Teacher Education and Development Study in Mathematics (Tatto et al, 2012), which focused on measuring different aspects of teacher education programs for pre-service mathematics teachers in seventeen countries. However, the surveys published by

the TEDS-M were modified to focus on the collection of general data about the implementation of different aspects of the teacher education programs and context-relevant information. The modified surveys asked questions on the implementation of the teacher education programs, including institutional capacity, components of the programs, participants' backgrounds, teacher educators' practices, learning opportunities for program participants, beliefs of graduates, preparedness of graduates, and overall effectiveness of the programs.

Institutional surveys. In order to understand institutional descriptions and different program-related policies, it is important to gather information systematically; therefore, an institutional survey was conducted for each selected program at each institution. The institutional survey was conducted with each chair of the department, in order to collect quantitative measures as well as descriptions of different aspects of the teacher education programs. The main sections of this survey consisted of program description, students' backgrounds, selection policies, program content, field experiences, program accountability and standards, staffing, and program resources. Each of these sections is explained briefly here. (Please contact the Author via fidahussain77@hotmail.com, if you need the instrument.)

The program description section asked several questions about the general nature of the program and the mode of offering (regular or off-campus). The section on students' background asked several questions about students' academic background, areas of specialization, and pass ratios. The section on selection policies focused on collecting information on who sets the policies, and on the selection criteria, particularly the role of students' academic achievements, their gender, socio-economic background, and incentives, if any. The section on program content included many questions about the categories of the courses offered, particularly the weight given to the six broader categories of courses: liberal arts, curriculum, subject matter, subject

pedagogy, general pedagogy, and education theory or foundations. Moreover, this section included many questions on the weight given to different program goals and to completion and certification requirements. The section on field experiences asked many questions on the nature of the field experience, the requirements of activities from students, faculties' role and responsibilities as supervisors, field-based support (such as mentoring), and the setting of the experiences. The section on program accountability and evaluation consisted of many questions on who makes decisions about different aspects of the program, and how the program is evaluated. The last two sections were comprised of several questions on the requirements of faculty and the program budget. In sum, the institutional surveys provided both quantitative and qualitative data about different aspects of each of the eleven programs included in this study at eight institutions.

Faculty surveys. The faculty surveys were conducted with faculty members who had taught teacher education courses in the programs which were included for this study at any time in the previous five years. The surveys consisted of the background of the faculty, the faculties' program implementation practices, the faculties' beliefs about pre-service teachers' learning, and the faculties' beliefs about the overall effectiveness of the program. The parts which focused on the faculties' background included several questions on their academic, professional, research, and teaching backgrounds. Moreover, the section on faculties' practices consisted of several questions about the faculties' specific role in the program in terms of teaching courses, field-based responsibilities, supervision of research projects, and participation in other activities at their institution. The section on beliefs about students' learning consisted of several sets of questions regarding opportunities provided to students to learn in the program and the nature of the activities that students participate in. For most of the questions in this section, a scale of 1 to

4 (1 = disagree, 2 = slightly disagree, 3 = slightly agree, and 4 = agree, or 1 = never, 2 = rarely, 3 = occasionally, and 4 = often) was used to obtain participants' ratings of the different opportunities provided to students in a program. The section on the preparedness of the participants included a set of questions on how the graduating students of the teacher education program were prepared for different aspects of their role as a future teacher. A scale of 1 to 4 (1 = not at all, 2 = to a minor extent, 3 = to a moderate extent, and 4 = to a major extent) was used to obtain the scores of the participants.

The final section of the faculty survey consisted of a question on the overall effectiveness of the program, on a scale of 1 to 6 (1= very ineffective, 2 = ineffective, 3 = slightly ineffective, 4 = slightly effective, 5 = effective, 6 = very effective). This section also provided a set of questions comparing the current program's implementation with earlier versions of the program, in terms of how different policy changes, growth of market-model programs, and organizational changes affected program implementation. (Please contact the Author via fidahussain77@hotmail.com, if you need the instrument.) Overall, the faculty survey comprehensively provided measures of the effectiveness of the implementation of all aspects of the program.

Student surveys. The student surveys were conducted with graduating students or final-semester students to collect data about the students' background, beliefs about teaching, opportunities to learn in their program, their readiness to teach, and their beliefs about the overall effectiveness of their program. Since students actively experienced all these aspects of the program, their ratings provided particularly important indicators of the overall level of the effectiveness of the program. The survey consisted of a set of several questions on each of these categories. (Please contact the Author via fidahussain77@hotmail.com, if you need the

instrument.) The section on background included many binary (yes/no) questions on students' socio-economic, academic, and professional background before admission into their current program. The main section of the student survey consisted of questions on learning opportunities that were provided through different components of the program. This section was divided into three sub-sections, which included opportunities to participate in progressive learning activities, opportunities to learn about children's growth and learning, and opportunities to learn about different aspects of teaching. The participants rated a set of pre-defined items/questions under each question, regarding opportunities provided by the program, on a scale of 1 to 4, in which 1 means never, 2 means rarely, 3 means occasionally, and 4 means often.

The section on field experience consisted of several pre-defined items on two aspects of the field experience, i.e., activities done in the field work or practicum, and support provided by the faculty (institution and schools). The participants rated pre-defined items/questions on a scale of 1 to 4, in which 1 means disagree, 2 means slightly disagree, 3 means slightly agree, and 4 means agree. The final section consisted of items on the coherence of the program and its overall effectiveness. The participants rated pre-defined items/questions on a scale of 1 to 6, in which 1 means strongly disagree, 2 means disagree, 3 means slightly disagree, 4 means slightly agree, 5 means agree, and 6 means strongly agree. The student survey comprehensively provided ratings of the students on all aspects of their program.

Altogether, the surveys were used as the main data collection strategy to collect data about the institutions' background, different aspects of program implementation, and the overall effectiveness of the programs. Most of the survey questions provided quantitative measures, but a few extracted short descriptions. The faculty and students were given similar items about the implementation of different components of the program and its overall effectiveness.

80

Interviews

The survey data was collected to estimate the implementation and effectiveness of each type of program. Participants' views were collected through interviews to explore their perspectives on the effects of the teacher education policies (particularly the policy which allowed the market-model off-campus programs), and on the effectiveness of the program's implementation. The interviewing strategy helped to engage participants in exploring their perspectives, as well as enabling the researcher to ask further questions when more elaboration, explanation, and further building on the responses by the participants was needed (Seidman, 2006). The interviewing, particularly in the focus group setting, also provided room for reflection by the participants, while interacting with the researcher and their colleagues, to reconstruct and make their meanings explicit. Further, because the study focused on understanding particular aspects of the impact of the policy, interviewing provided a means to keep the participants focused in this particular area, while connecting it with other aspects of the policy (Seidman, 2006). The interviewing technique was a reasonably strong way to explore the perceptions of the participants.

Specifically, one semi-structured individual interview was conducted (and audio-recorded) with each chair or coordinator of the program in the department of teacher education at each institution. In addition, focus-group interviews were conducted with a group of five senior faculty members at each institution. Most of the interviews lasted about an hour. The interviews focused on how teacher education policy, particularly the policy which allowed market-model off-campus programs, was viewed by the institution, and how it had affected implementation of different aspects of the program at their institution. Further, the effects of the market-model programs and the policy on the overall quality and effectiveness of teacher education in the

region were explored with the interview participants. For the most part, the interview provided qualitative data; however, the chairs/coordinators provided a few documents containing quantitative data, such as enrollment and pass ratios, to back their claims.

SECTION 3: DATA ANALYSIS

Data analysis was done at two levels. At the first level, the quantitative and qualitative data were analyzed separately. At the second level, analysis was done to establish cross-integration between the quantitative indicators and the qualitative themes. Accordingly, I will first describe the separate analyses of the quantitative and qualitative data, followed by description of the cross-integration of both kinds of data.

Quantitative Data Analysis

Descriptive statistics techniques and descriptive presentation strategies were applied to analyze the quantitative data. Mostly, percentages/ratios and averages were developed from the survey data. Specifically, percentages were derived for several of the participant background variables (such as age group, gender, academic background, and socio-economic status), student pass rates, and program content/goal variables. Composite average scores were developed for participants' ratings of the categories of program implementation. As described in the data collection section, the main parts of the faculty and student surveys contained several categories of program implementation (on-campus and field-experience). Each category consisted of several items, and each item was rated on a scale of either 1 to 4 or 1 to 6.

Separately for each program, the composite average scores for each category were established through the following method: 1) individual scores across items, under a category, were added to develop an individual's total score; 2) individual total scores were added to

82

develop the composite total scores of a category; and 3) since the composite total score of a category consisted of weights for the number of items and the number of participants (individuals), composite total scores were divided by the total number of items, and then by the total number of individuals (participants), to establish composite average scores. This method can be written precisely in this way: Composite Average Score = {Total of Individual Scores ÷ Number of Items} ÷ Number of Participants. The Composite Average Score of a category is the average score of a participant (student or faculty) for a category of program implementation. For example, a category (comprised of many items) asked the participants how often they participated in different progressive learning activities, and the scale ranged from 1 to 4, where 1 means never, 2 means rarely, 3 means occasionally, and 4 means often. A composite average score of 2.95 on this category indicates that the participants, on average, occasionally had opportunities to participate in progressive learning activities.

In addition, analysis was done to compare the composite average scores (and other indicators) between the regular and the off-campus programs. Mostly, a series of graphs or pictorial graphs and tabular presentations were used to show such comparisons. These comparisons provided important indicators about the outcomes and effects of the policies and of the market-model programs. Moreover, percentages, averages, and grand totals (published in AEPAM Islamabad national reports) were used to understand patterns of growth or decline over time. For example, published annual national reports include data about the number of participants enrolled in teacher education programs, nationally and provincially. This number (the grand total), published in a series of previous annual reports, was analyzed to show patterns of growth in enrollment over time. Graphic and tabular presentations were predominantly used to show such patterns.

An important aspect of quantitative analysis. Since the surveys were adapted from the

TEDS-M international study (Tatto et al, 2012; and Tatto et al, 2013) and were modified for the

Pakistani context, it is important to understand how analysis of quantitative indicators in this

study are different from the analysis done in the TEDS-M study. TEDS-M studies used several

advance techniques such as Factor Analysis and Rasch Scaling (Tatto et al, 2013) to develop

scales (measures) of opportunities for learning, precisely mentioned as opportunities to learn

OTL (Tatto et al, 2013). However, for the analysis of learning opportunities and other areas of

program implementation in this study, the broader categories of learning mentioned above were

used by combining the items, as formulated conceptually in the development of the surveys,

which were considered related to a broader area of learning opportunities in the teacher

education programs. For example category one consisted of questions about different progressive

and inquiry-based learning activities, in which program participants possibly are engaged in a

teacher education program. The assumption here was that if programs engage in more inquiry-

based activities, the participants learn better. Therefore, the higher composite average scores on

this category, and similarly in other five categories, mean higher learning of students.

Because the purpose of the analysis in this study was to develop indicators of the overall

implementation level of programs, the analysis described above served the purpose. However,

the more sophisticated ways of analysis, such as Factor Analysis and Rasch Scaling used in

TEDS-M international study, could be used in future studies (or future analysis of the data

collected in this study), in order to develop specific indicators for several subcategories of

learning opportunities. Also, an item-based instead of category-based analysis could be done to

see measures of learning opportunities for very specific areas, to assess which particular areas

are more or less focused in a program. However, this study emphasized overall indicators of

program implementation; therefore, composite averages were developed for each category. Analysis similar to what was done in TEDS-M study, and other possible ways of analysis, are recommended for future studies. For the reasons described above, it is important to understand that the indicator or scale of 1 to 4, where 4 is the optimum score, and the indicator of 1 to 6, where 6 is considered the optimum score, are limited to the analysis used in this study. Results should be looked at from the criteria used herein.

Qualitative Data Analysis

All interviews were transcribed and coded separately, and data from documents were coded, following codes for the pre-defined categories. The main pre-defined categories included program descriptions, views on the market approach policy, effects of the policy on the program implementation, and effects of the market approach policy on the quality of teacher education in the region. A further analysis of data resulted in many subcategories, including enrollment issues, effects on course work and grades, compromises on program requirements, teaching viewed as business, and credibility of teacher education certification. Further, a comparison and contrast analysis was done between the views of the participants from the two types of programs. Since the background of the faculty, the syllabus, program requirements, and the mode of offering the two types of programs (regular and off-campus) were significantly different, it was expected that the participants from different program types would vary in their perceptions of the policy and its effects. Comparison of views between the participants from two different types of programs provided insights about the implementation of these programs. This analysis also provided insights into the effects of the growth in off-campus programs on the overall quality of teacher education.

At the second level of data analysis, quantitative and qualitative data (indicators and themes) were analyzed to explore connections. Each category of indicators/estimates established in the quantitative analysis was examined separately for possible connections with the qualitative themes. Further, qualitative categories and themes were analyzed to see how quantitative estimates and indicators could be explained by these categories. For example, one theme of the qualitative data about the effects of the growth in off-campus programs on pass ratios was very strongly connected with the indicators of enrollment and pass ratios compiled in the quantitative data analysis. Hence, the second level of the data analysis led to integration and interweaving of both kinds of data, to answer the research questions at length and in depth.

Ethical Considerations

Several ethical considerations are relevant in light of established protocols for research in the humanities and social sciences. Before the inception of the research project, approval from the Michigan State University Institutional Review Board (MSU-IRB) was sought, and exempt status was achieved. The significant considerations which were made before the launch and during the project activities were the following. All participants in this study were clearly briefed about the focus and nature of the study, and they were requested to participate voluntarily. All the participants were also informed about the research; they were assured that their names would be kept confidential, and that the information they provided would only be used for research purposes. Written consent was acquired from all the participants about their understanding of the research, as well as their voluntary participation in the study. Hence, two common requirements for informed consent, i.e., "knowledgeable and voluntary" (Thorne, 2004), were ensured. Further, all names used in the research report are pseudonyms, to ensure the privacy of the participants. At many places, the indication of names is not required because the information is

presented in combined forms/indicators. Moreover, to make it secure, all the data were saved on my personal computer and on a personal portable hard drive. My laptop is not accessible to anyone except myself, because it is password locked and can only be physically accessed by me. I have even used pseudonyms or generic titles in the saved data on my personal computer and data storages to ensure the privacy of the participants, in case of accidental access of someone to my storage drive or personal computer. The protocols were rigorously followed to acquire the informed consent of the participants and to protect their confidentiality.

Limitations of the Study

There are some limitations of the study methodology which need to be laid out clearly for readers. Although efforts were made to include a high number of research participants -- almost all public institutions of teacher education for secondary teachers in the province were included, and national data to the extent that was possible was used -- the study is confined to the teacher education institutions in only one province of Pakistan. While the teacher education landscape is not much different in other provinces, data was not collected directly from institutions and participants in other provinces; therefore, the results should be used with caution in the context of other parts of Pakistan. Another limitation is the relatively small number of survey participants (students and faculty) from the off-campus market-model programs. The number of participants in the off-campus programs is substantially higher than the regular programs; however, because of funding and time limitations, a proportionally smaller number of the off-campus participants were surveyed. Although the number of participants from the off-campus programs is large enough to make a claim, ideally a larger number of participants would have created more robust indicators. Furthermore, most of the analysis of the quantitative data was

descriptive, and should, therefore, be taken as indicators rather than direct evidence of program

implementation.

CHAPTER V

FINDINGS

The findings of this study are presented in three broad categories. The first category presents the implementation of the policy which allowed off-campus programs and related trends in teacher education over time in Pakistan. Overall, this category shows that the policy of allowing teacher education institutions to offer programs based on self-finance (without any public funding) resulted in out-of-proportion growth of off-campus market-model teacher education programs, which now constitute about ninety percent of all enrollment in teacher education institutions. This overwhelming growth of enrollment in off-campus market-model programs, which mostly is in the Federal Open University, initially helped in reducing the number of untrained in-service teachers; however, analyses in recent years show a pronounced imbalance between enrollment and the addition of new teachers into the system. These patterns strongly warrant further research on different aspects of off-campus programs.

The second category presents the implementation of different components of the programs, both regular and off-campus, as well as the overall effectiveness of these programs. In general, my analysis shows that indicators of program implementation for both types of programs are much lower than the optimum level; however, comparison of the indicators shows that the implementation of the regular programs has been relatively more effective than that of the off-campus market-model programs. Lower indicators for both types of programs indicate a significant dissatisfaction of participants with the effectiveness of these programs.

The third category presents the impact of the growth of off-campus market-model teacher education programs on the quality of teacher education. Participants in the study considered that the growth of off-campus market-model programs had a negative impact on program

89

implementation and on the overall quality of teacher education in their region. The issues reported include teacher education viewed as a business, teacher education degrees acquired as spare degrees, missing institutional innovation and reforms, and the decreased credibility of teacher education degrees/certificates.

Although, taken together, these categories of findings address all the research questions, each category is more concentrated on answering one or two specific research questions. The first category mainly answers how policy has been understood and implemented over time (the first two research questions, set forth above, along with the other research questions in the introduction and reiterated below in Table 14). Most of the data used for this category was collected through document analysis (government administrative data reports and institutional documents). The second category primarily focuses on program implementation and the challenges posed by the overwhelming growth in the market-model off-campus teacher education programs; this category concentrates mostly on questions two and three. Most of the data used for this category was collected through surveying graduating students, faculty, and institutional heads (as described in the chapter on methods), and from academic institutional reports. The main focus of category three is research question four; most of the data for this category was collected through focus group interviews (with five senior faculty members in each program), and through the researcher's informal conversations with the participants.

The following table provides a concise overview of the findings in relation to the research questions and the data sources.

Table 14: Overview of the Findings in Relation to the Research Questions and the Data Sources

#	Main Category of Findings	Concentrated Research Questions	Main Data Sources
1	Market approach teacher education policy implementation and growth trends over time	1-How is the policy described and rationalized? 2-How has the policy been understood and implemented by institutions of teacher education?	• Policy documents • Government data reports • Program descriptions
2	Implementation of different components of the programs and the overall effectiveness of the programs	2-How has the policy been understood and implemented by institutions of teacher education? 3-What are the benefits and the challenges of allowing the market operate in the provision of teacher education?	• Program documents • Institutional surveys • Student surveys • Faculty surveys
3	Effects on program implementation and the overall quality of teacher education	4-What are the administrators' and teacher educators' views about the effects of the policy?	• Faculty interviews • Interviews with heads of the departments

SECTION 1: POLICY IMPLEMENTATION AND GROWTH TRENDS

This section presents description of the policies which encouraged the off-campus programs and an analysis of the growth trends in the market-model off-campus programs in relation to regular programs. Since it was a national policy which allowed institutions to offer market-model (self-financed) programs, it is important to examine the overall picture of its implementation over time and across Pakistan. The analysis of the growth trends of teacher preparation programs is presented for Pakistan, followed by a similar analysis for the province focused on in this study. The analysis is presented in six sub-categories: 1) description of the policy and its unintended consequences; 2) growth in teacher education programs; 3) relationship

between ratios of untrained teachers and enrollment in the off-campus programs; 4) enrollment in teacher education and addition of new teachers in the system; 5) comparison of increases in the number of teachers with enrollment trends over time; and 6) emphasis on the quantity of graduates in traditional teacher education programs.

The data for the analysis of growth trends was obtained from the national data reports from 1995 to 2012 that were published by the Academy of Educational Planning and Management (AEPAM) Islamabad, a government organization which works under the Ministry of Education and Training Pakistan. AEPAM Islamabad collects administrative data from all the provinces and federally administered territories, and it publishes the data in a compiled form (totals and grand totals). Although the data helps in understanding overall trends, there are several limitations to this data, because analyses could not be developed for some specific areas. These limitations are explained here. Complete data about enrollments in teacher education programs are not available before 2006 because the first education census was conducted in the year of 2005-06. The data about enrollment in off-campus programs are not available before the year of the national census. Moreover, specific data about enrollment in off-campus programs by Federal Open University were not available because this university does not publish data reports. However, AEPAM Islamabad reports present data separately for Islamabad (federal capital area); therefore, enrollments in Islamabad-based institutions indicate the approximate level of enrollment in the off-campus teacher education programs offered by the Federal Open University.

Policy Description and Its Unintended Consequences

Although there was no specific education policy, many policy reforms by the government of Pakistan which began in the late 1990s resulted in the rapid growth of offerings of off-campus

teacher education programs. In 2000, Pakistan committed to the Dakar Framework for Action to achieve "Education for All" (EFA) goals (UNESCO, 2000); however, in an international education reforms environment, Pakistan already had began planning and implementing education reforms through its National Education Policy (NEP) 1998-2010. Because Pakistan's net enrollment rate at the primary level was one of the lowest in the world, policy makers identified the lack of qualified (trained) teachers as one of the significant reasons for low enrollment. About one fifth of in-service teachers in public school systems were untrained in Pakistan by this time (AEPAM Islamabad, 1998). This is why the NEP 1998-2010 (Ministry of Education Government of Pakistan, 1998) contained a chapter on reforms to improve teacher quality through providing teacher training which included in-service refresher training and teacher education certification of untrained in-service teachers. The NEP 1998-2010 encouraged provincial governments to take measures to train untrained teachers, and it allowed unlimited enrollments in teacher education institutions as well as encouraged higher education institutions in public and private sector to offer teacher education programs.

While government policy reforms targeted training all untrained in-service teachers, teacher education institutions severely lacked in capacity in terms of physical as well as human resources, particularly qualified teacher educators, to achieve the targets. To fill this gap, many higher education institutions, with few variations, offered off-campus teacher education programs, based on the already existing materials developed to prepare teachers via open and distance learning models (off-campus) similar to those developed by the Federal Open University. Most of these programs, including the programs offered by the Federal Open University, began to be marketed by being offered at a low-cost. These developments were seen as the result of the policy initiative taken in NEP 1992 (Ministry of Education Pakistan, 1992),

which allowed public institutions to offer programs on a self-finance basis. Public institutions which in the past had offered traditional teacher education programs began managing low-cost alternative programs as well, employing senior school teachers who had a Master level qualification instead of regular teacher educators. Most of the institutions developed a tailored syllabus and published their own textbooks for each course. Unlike the program by the Federal Open University, these programs offered weekly or bi-monthly classes and required practice teaching; however, the number of required courses and practice teaching sessions were significantly lower than in the regular traditional programs. Moreover, the Government of Sindh, through its department of education and literacy, implemented a "crash training program" in the late 1990s to train all teachers within a period of three years. Similar to the off-campus programs, these crash programs employed senior school teachers; however, unlike other off-campus programs, the participants in these programs were engaged in regular classes in different school-based training centers and completed the program in four months. These reforms led to a reduction in the number of untrained teachers, as per the AEPAM Islamabad (2003) report, to about 2% of all teachers at national level, and 4% of all teachers in the province of Sindh.

While the above-stated reforms significantly reduced the proportion of untrained in-service teachers, they resulted in disproportionate growth of off-campus programs. In addition, the higher education reforms in 2001 (HEC, 2002) encouraged institutions to offer self-financed programs to reduce public institutions' reliance on public funding. Because off-campus teacher education program models were well-known and produced new sources of revenue, many higher education institutions, including non-teacher education institutions such as agriculture universities and business schools, adapted and offered off-campus programs. As is illustrated in the following sections, because these programs were expected to help provide the support

previously obtained from public funding, the requirements to enter and complete these programs were watered down in an effort to attract more candidates; since then, enrollment has been growing significantly in these programs, particularly in the programs offered by the Federal Open University. In addition, provincial governments' different policy initiatives (in accordance with NEP 1992 and NEP 1998-2010) to give a pay raise on an additional qualification combined with the fact that off-campus teacher education programs were easy to complete has led to the overwhelming growth of an unregulated market for teacher education in Pakistan. Here, it seems that the growth of an unregulated teacher education market in Pakistan is an unintended consequence of an otherwise well-intended policy that focused on providing trained teachers in all schools. Moreover, evidence in the following sections suggests that lack of regulation has made things quite unmanageable, and has worsened rather than improving the quality of teachers and teacher education in Pakistan.

Growth in Teacher Education

The analysis of the growth in public teacher education institutions and the enrollment in teacher education programs shows steady growth in the number of institutions compared to the overwhelming growth in enrollment in the off-campus teacher education programs. The findings in Figure 3 show that thirty new institutions were added in the year 2006, a relatively significant increase in the number of institutions, whereas growth in the number of institutions has been quite steady, at around one institution per year, for all other years during this period.

Figure 3: Growth Trend in Number of Public Teacher Education Institutions in Pakistan (for preparing K-12 teachers)
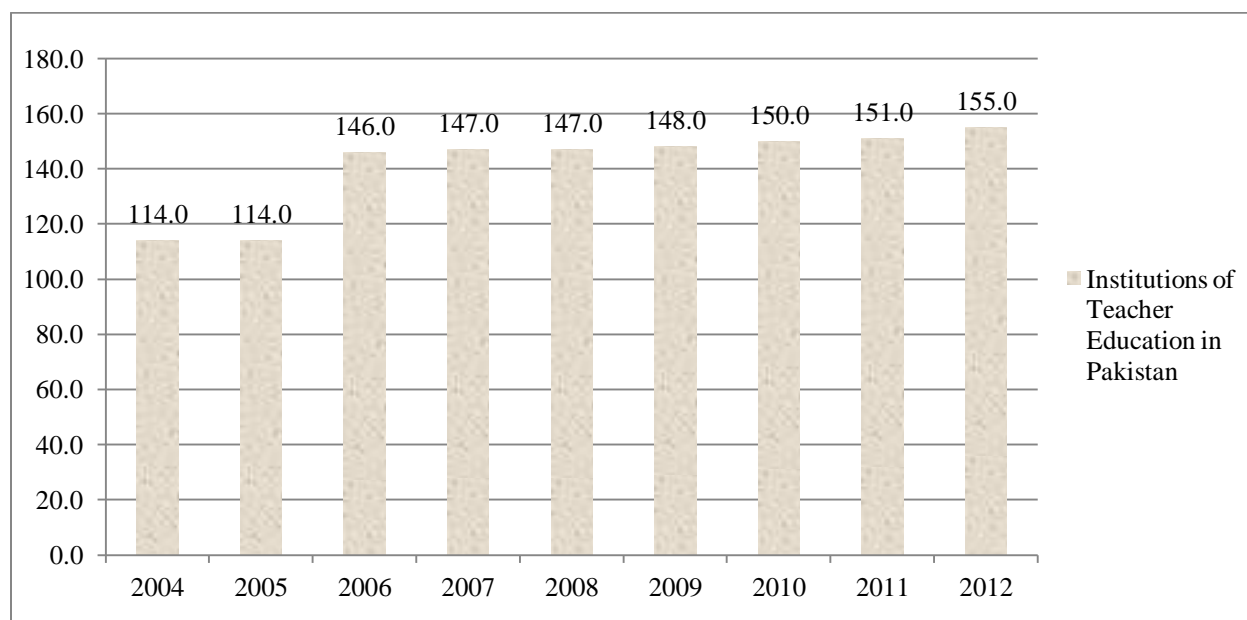
Created by Author; data source: AEPAM Islamabad reports 2004 to 2012.

While the findings of the AEPAM Islamabad published data on enrollment trends show this substantial increase in 2006, this finding should not be confused with an increase in the number of teacher education institutions in this year. Because 2006 was the first year for an education census conducted in Pakistan, the jump in the number of enrollments reflects the number of enrollees in the off-campus programs who were not reported in prior AEPAM Islamabad reports. As Figure 4 shows, most of the enrollment by 2006, and in the following years, was in Islamabad-based institutions, where the biggest open and distance learning institution, the Federal Open University, is located; the large increase in the year of 2006 was because of the first-time addition of data about off-campus programs offered by the Federal Open University. Nonetheless, the analysis does show an out-of-proportion enrollment in Islamabad-based institutions, which is mostly in the off-campus programs offered by the Federal

Open University. Proportionally, for each student enrolled in the institutions in the rest of Pakistan, twelve students are enrolled in Islamabad-based institutions, mostly in the Federal Open University offered off-campus programs. Here it is important to understand that the Federal Open University has centers all across Pakistan, and accordingly their enrollments contain students from all around Pakistan, enrolled at different regional centers. In addition, some institutions in the rest of Pakistan also offer off-campus programs; therefore, the enrollments at the institutions in the rest of Pakistan are for both kinds of program. Since AEPAM Islamabad reports do not contain program-based data, it was not possible to develop a comparison between off-campus and regular programs in the rest of Pakistan. Overall, the analysis indicates disproportionate enrollment numbers in off-campus programs, which seem to be a result of the policy which allowed institutions to offer self-financed programs using market approaches.

Figure 4: Comparison of Enrollment Trends between Islamabad-based Public Teacher Education Institutions and Public Institutions in the Rest of Pakistan (for K-12 teachers)
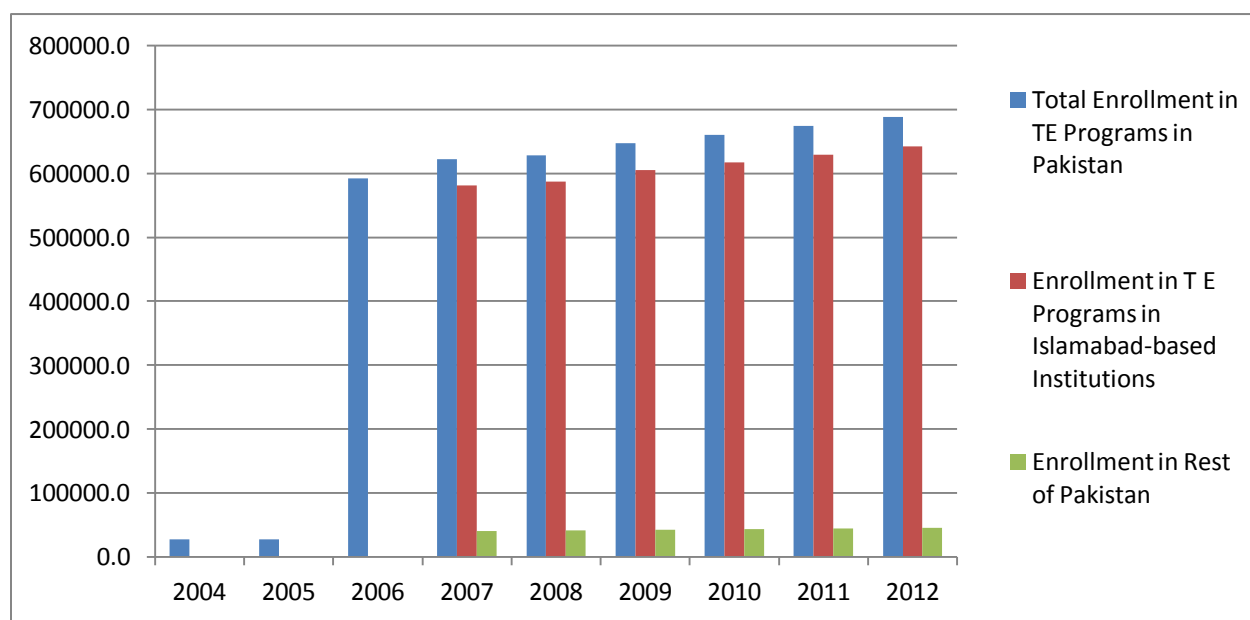
Created by Author; data source: AEPAM Islamabad reports 2004 to 2012.

The findings of the enrollment trends for the province and the participant institutions also show a trend similar to the national trend: an overwhelming proportion of students are enrolled in the off-campus programs. The findings of the overall enrollment trends in teacher education programs in Sindh showed a slight growth in enrollment in the last five years (see Figure 5). The number of seats in regular programs has been fixed over the last several years; therefore, this growth could be because of a significant growth in off-campus programs which are offered by a few provincial institutions. However, an important fact to notice here is that the enrollment in Sindh is even lower than 1% of the total enrollment in Pakistan, which reinforces the indicators in the earlier analysis of national trends that the out-of-proportion enrollments are mainly in the Federal Open University offered off-campus programs.

Figure 5: Enrollment Growth Trends in Public Institutions of Teacher Education (for preparing K-12 teachers) in Sindh
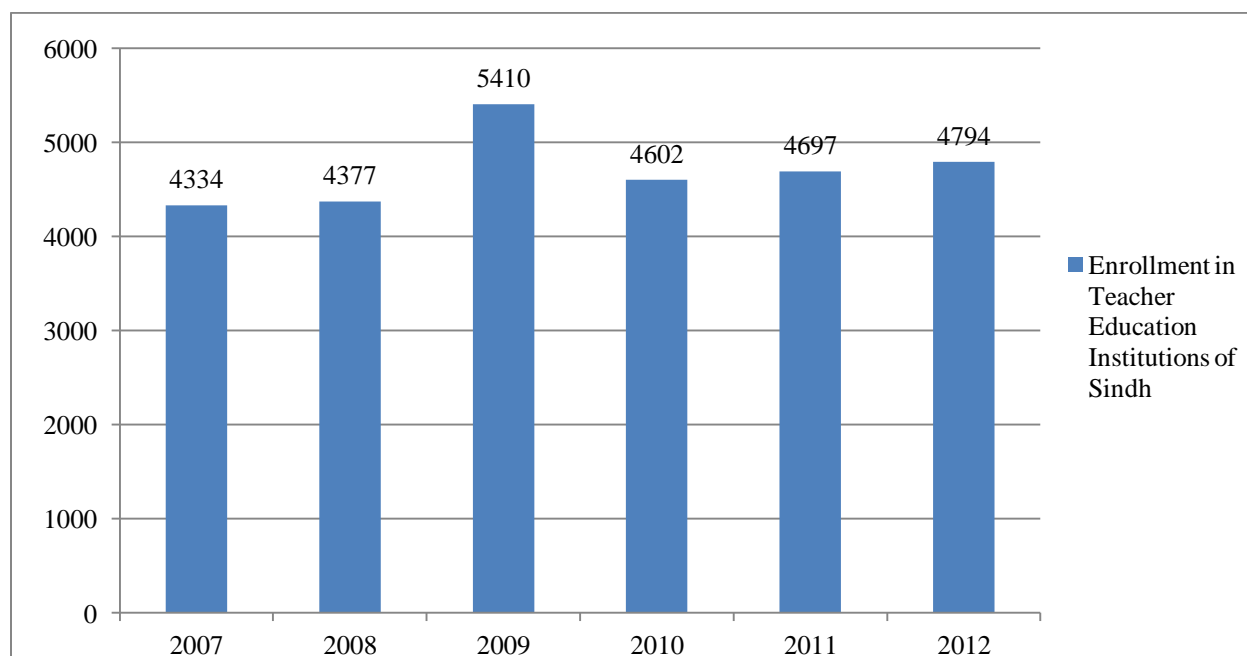
Created by Author; data source: AEPAM Islamabad reports 2007 to 2012.

The findings of enrollment growth trends in the six programs at the four institutions which participated in this study show even more clearly that off-campus programs contained disproportionate enrollment, and the enrollment in these programs has grown rapidly. The findings are limited to six programs because long term enrollment data was only available for three regular and three off-campus programs. Figure 6 shows an analysis of the enrollment trends, demonstrating that enrollment at three off-campus programs, one offered by a local university and two offered by the Federal Open University, have grown rapidly. Moreover, consistent with national trends, the Federal Open University centers contain out-of-proportion enrollment, which is much greater in comparison to PU middle, the off-campus programs offered by local universities.

Figure 6: Enrollment Trends in Six Participant Programs (for preparing secondary teachers) Show Overwhelming Growth in Enrollment for Off-campus Programs
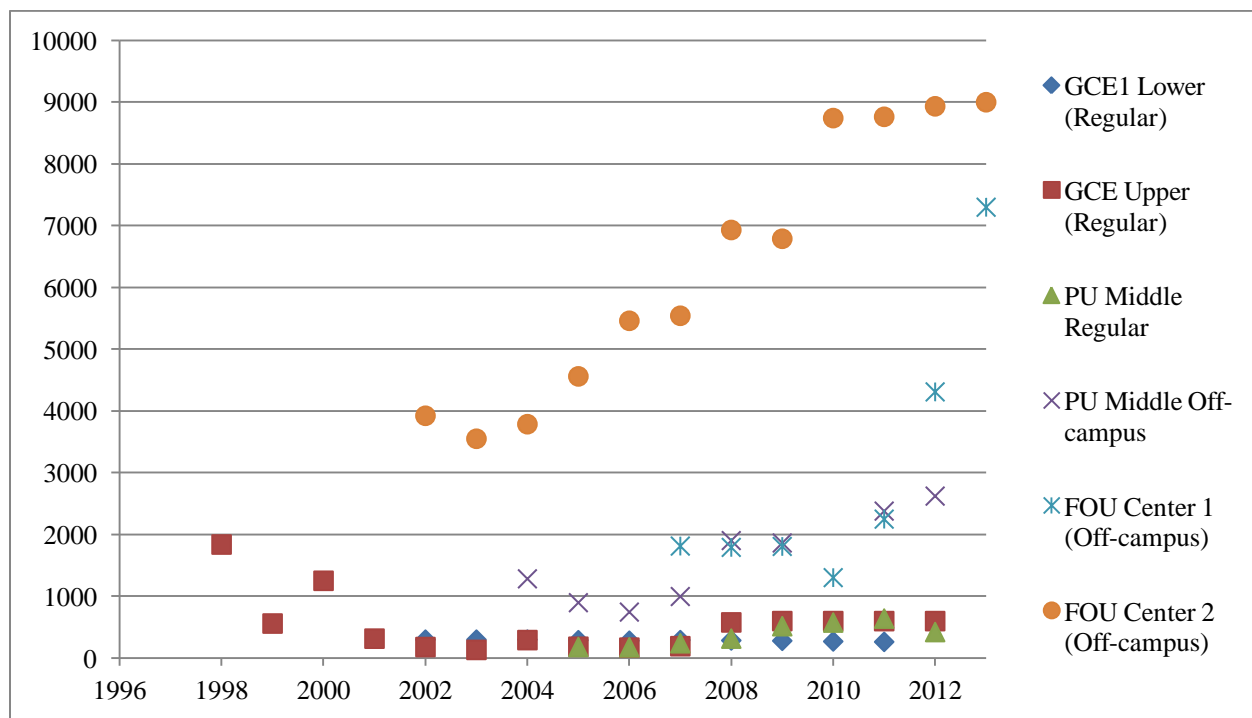
Created by Author; data source institutional surveys conducted in 2013. Note: GCE = Government College of Education, PU = Public University, FOU = Federal Open University.

The enrollment trends in three regular programs show a decline from 2000 to 2007, but enrollment levels have increased and are constant after 2008 in the two colleges (GCE1 and GCE2). It seems that the initial decrease of enrollment in regular programs occurred due to the boom in enrollment in the off-campus programs, as many interview participants reported; however, regular programs regained their enrollment in 2008 by relaxing requirements, comparable to the off-campus programs. The enrollments at the two colleges (GCE1 Lower and GCE Upper) were constant after 2008 because, per year, the number of enrollment vacancies was fixed for the colleges in that year. Many interview participants claimed that limiting the number of enrollment vacancies was a policy tactic to advantage the institutions which offer off-campus market-model programs because these institutions have an influence on policy making.

Overall, the analysis of enrollment trends shows that off-campus programs, mostly offered by Federal Open University, are characterized by highly out-of-proportion enrollment. This trend is consistent at the national level as well as in the province focused on in this study. Moreover, the enrollment trends in the six programs which were included in this study also reinforce the effects of the policy, resulting in disproportionately high enrollment in off-campus market-model programs. More effects of this policy will be analyzed in subsequent sections.

Ratios of Untrained Teachers and Enrollment in the Programs

Because the policies which allowed teacher education institutions to offer off-campus market-model programs, on a self-finance basis, was justified in order to train a significant number of previously untrained in-service teachers, it is important to look at how the growth in off-campus teacher education programs is related to the ratio of untrained teachers. As explained earlier, because it is national policy, I analyzed national trends to present an overview about

Pakistan, followed by analysis of the trends in Sindh, the province focused on in this study. The data used were obtained from AEPAM Islamabad national data reports.

The analysis shows a significant reduction in the proportion of untrained teachers across Pakistan from 1998 to 2000 (see Figure 7), which was the period of initial growth in off-campus teacher education programs. Arguably, the reduction in the number of untrained teachers is related to the expansion and growth of off-campus programs. However, in spite of the significant growth trend in enrollment in off-campus programs, the proportion of untrained teachers is consistent at around 2% of all teachers since 2000 (see Figure 7). While it could be argued that the high volume of enrollment in the off-campus programs has helped in maintaining

Figure 7: Trends in Proportion (%) of Untrained K-12 Teachers in Pakistan
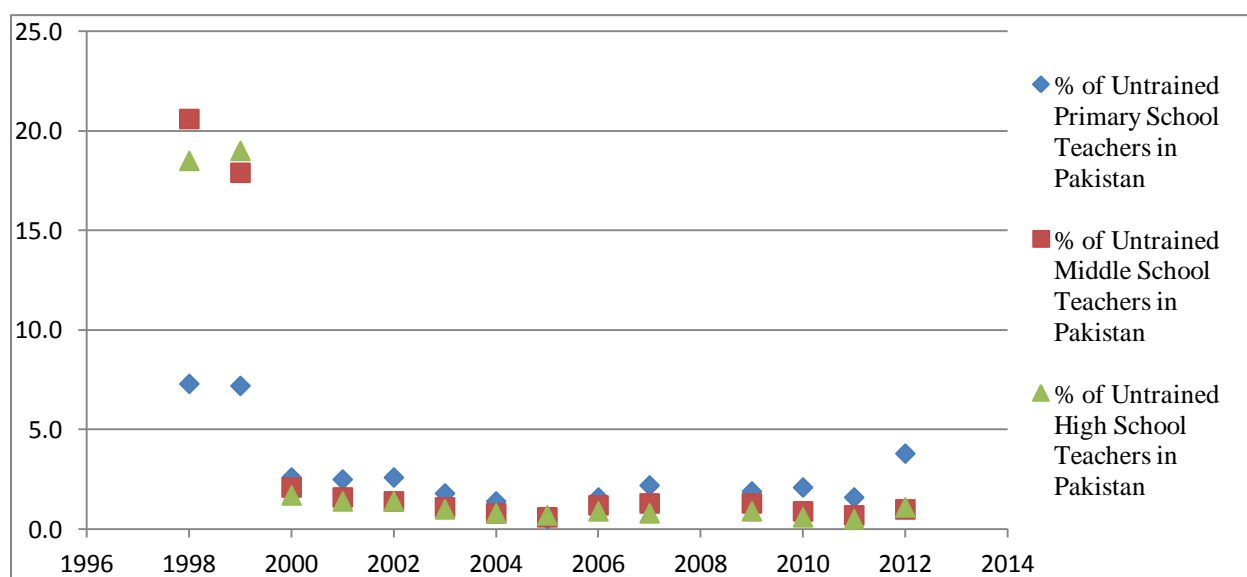
Created by Author; data source: AEPAM Islamabad reports 1996 to 2012.

the low ratio of untrained teachers, the analysis of the enrollment data about regular programs shows that the number enrolled in regular programs might even be more than enough to maintain such a low ratio of untrained teachers (more detailed analysis on this is presented in the next section).

The findings about the percentage of untrained teachers in Sindh also show a significant reduction in the proportion of untrained teachers in the years 1998 to 2002, similar to the national trend; however, a relatively higher proportion of teachers, about 5%, has remained untrained since 2002 (see Figure 8). As presented earlier in the analysis of enrollment in off-campus programs in Sindh (in Figure 6), a significantly high number of students enroll in off-campus programs, yet the proportion of untrained teachers remains high in Sindh. This analysis warrants more in-depth understanding of the reasons for it, which were explored in the interviews with faculty participants, and are presented here as findings in the third category. One explanation which seems is plausible is that the significant reduction during the years 1998 to 2002, particularly the number of untrained primary and middle school teachers, was mainly the result of large-scale offerings of short intensive certificate programs across the province, under a reform project called "crash training program" for in-service teachers.

Figure 8: Trends in Proportion (%) of Untrained Teachers in Sindh
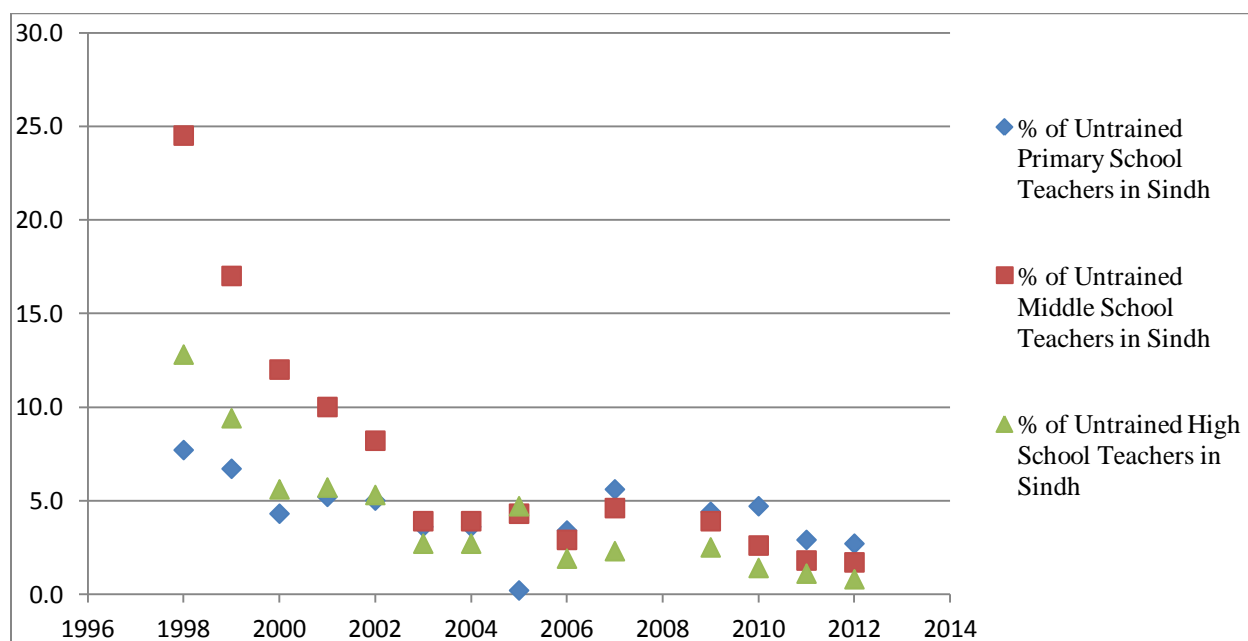
Created by Author; data source: AEPAM Islamabad reports 1996 to 2012.

The teachers who successfully completed this program were awarded a teacher education certificate, thus resulting in their becoming trained teachers. Moreover, interview participants viewed the reduction in the number of untrained secondary teachers as the result of extensive offerings of off-campus market-model programs by non-teacher education institutions, such as agriculture universities and business schools. These non-teacher education institutions were stopped after strong opposition by teacher education institutions, particularly by the Federal Open University, which considered off-campus programs solely their domain. The interview participants also pointed out that those institutions battled to control the market, which is a quite common business/market approach.

To sum up, although the growth of off-campus market model programs appears to be related to the initial significant reduction of untrained teachers in Pakistan, as well as in Sindh, the analysis of the interview participants' views points out a more complicated picture of how institutions struggled as market forces to control the teacher education market. The struggle over the market place, it seems, led institutions to focus on using effective market approaches and strategies in place of the original intent of the policy, which was to provide better professionally qualified teachers in all schools through professional certification of all teachers.

Enrollment in Teacher Education and Addition of New Teachers

The whole idea of policy initiatives to allow market approaches in teacher education was to provide a sufficient number of trained (professionally qualified) teachers to meet the needs of schools for qualified teachers. Hence it seems reasonable to look at the enrollment in teacher education programs in relation to the addition of new teachers in school systems. Comparative analysis of data on the number of teachers, year by year, over time shows an increase or decrease in the number of teachers each year. Averaging the increases and decreases for the last seven

consecutive years gives an average per year increase of teachers in the system. For the period of

2006 to 2012, and for all three levels of schooling, comparative analysis was conducted and then

the average was calculated to find out the per year increase of teachers in the system. Moreover,

the total enrollment in teacher education programs was averaged, which was mostly in off-

campus programs, for the same period, to determine the average per year enrollment. Then all

four averages were put together to create a donut graph, which presents an approximate view of

enrollment in teacher education compared to the addition of teachers in the system for the last

seven years (see Figure 9).

Figure 9: Comparison between Per Year Enrollment in Public Teacher Education Programs and Addition of New Teachers in the Public School System (K-12) in Pakistan
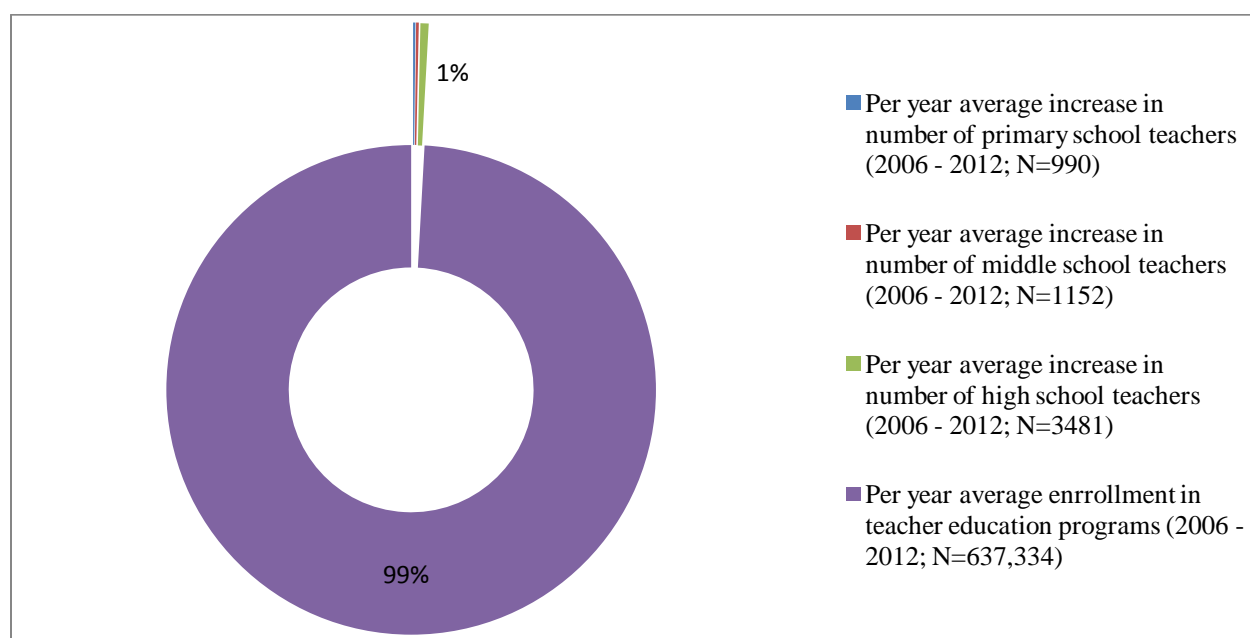
Created by Author; source of data: AEPAM report 2006 to 2012.

Comparison between the increase in the number of teachers (K-12) in the Pakistani

public school systems and the enrollment in public teacher education programs for the last seven

years (Figure 9) shows an extreme imbalance. The 1% in Figure 7 indicates that, on average,

approximately 4,000 new teachers were added per year from 2006 to 2012. However, a huge

annual average enrollment of more than 600,000 in teacher education programs shows a total

mismatch with the trend of the addition of new teachers. This mismatch indicates that enrollment

greatly exceeds the approximate need for new teachers. If the passing rate in teacher education

programs is taken to be 80%, which is very common in off-campus programs, and accounting for

the number of retiring teachers per year, which is assumed to be approximately equal to the

number of new teachers, on average approximately only three out of eighty graduates are hired

by the schools. Thus, it appears that enrollment in teacher education programs is extremely

higher than the employment of new teachers in the school systems.

Similarly, further comparative analysis between average per year enrollments in teacher

education programs in the rest of Pakistan, excluding enrollment in Islamabad based institutions,

and the per year increase in the number of teachers reveals that, proportionally, the enrollment

covers a higher space in the donut graph (see Figure 10). Because Islamabad-based enrollment

mostly shows the enrollment in AIOU Islamabad, which constitutes most of the enrollment in the

off-campus programs, it is important to see how enrollment, excluding enrollment in Federal

Open University, compares with the approximate need for new teachers in Pakistan. This

analysis indicates that even the enrollment in the institutions in the rest of Pakistan seems more

than enough to meet the needs of the systems, based on the average rate for the addition of new

teachers in the system.

Figure 10: Comparison between Per Year Enrollment in Public Teacher Education Programs (minus Islamabad-based institutions) and Addition of New Teachers in the Public School System (K-12) in Pakistan
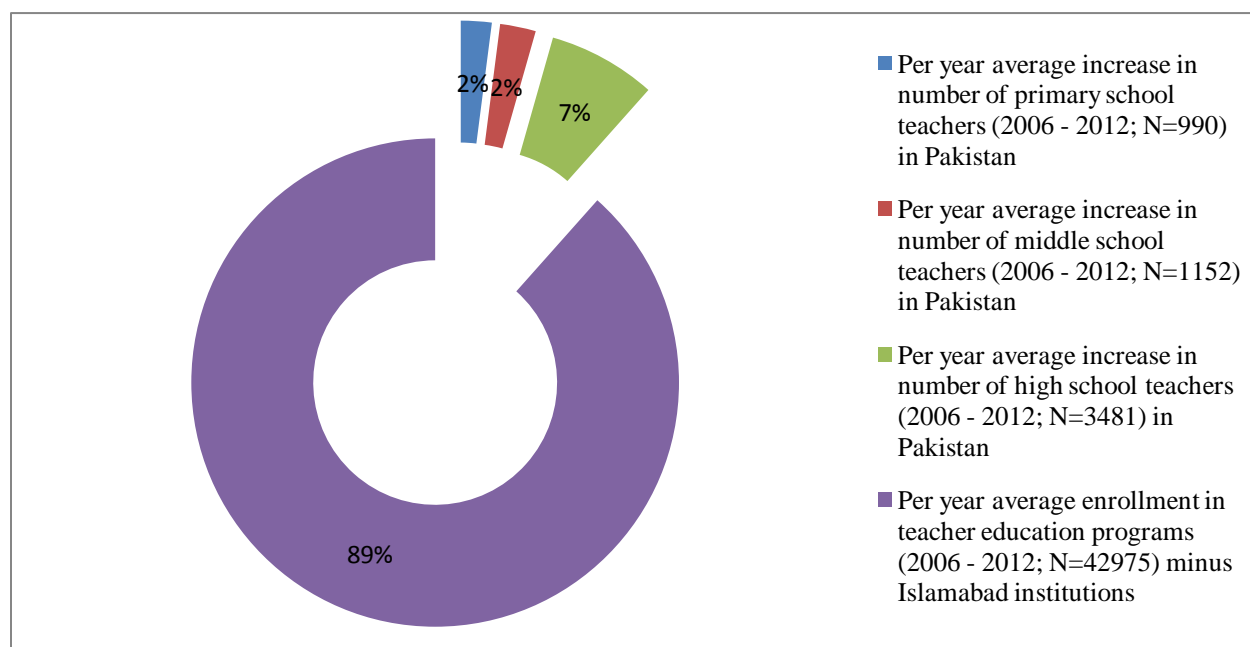
Created by Author; source AEPAM Islamabad reports 2006 to 2012.

In looking at the low but consistent percentage of untrained teachers and the extremely

unusual mismatch between enrollment in teacher education programs and increase in the number

of new teachers, a major concern arises about where the participants in teacher education

programs come from and what the rest of the graduates do. Another significant concern is what

this extremely disproportionate growth of enrollment in teacher education programs means for

the quality and effectiveness of teacher education. A more significant concern is whether

Pakistan, as a developing nation with limited resources, can afford to spend resources and time

on producing a huge number of teacher education graduates, an overwhelming majority of whom

are unlikely to work as teachers. These are serious concerns based on the above-presented

analysis, and they warrant further research in these areas and informed policy decisions.

Emphasis on the Quantity of Graduates in Traditional Teacher Education Programs

The unusually high enrollment in off-campus programs, and the higher pass ratio in these programs, indicates that the overall focus of teacher education in Pakistan has shifted from the quality of preparedness to producing a high number of graduates. In addition to the unusually high enrollment in off-campus programs, the passing (graduation) ratios in these programs are also quite high, compared to the regular teacher education programs. Figure 11 shows that the average pass percentage in the market-model off-campus programs (Federal Open University centers and PU middle off-campus) is around 90%, compared to the average pass percentage of around 60% in the regular programs.

Figure 11: Comparison of Pass Ratios between Off-campus and Regular Programs
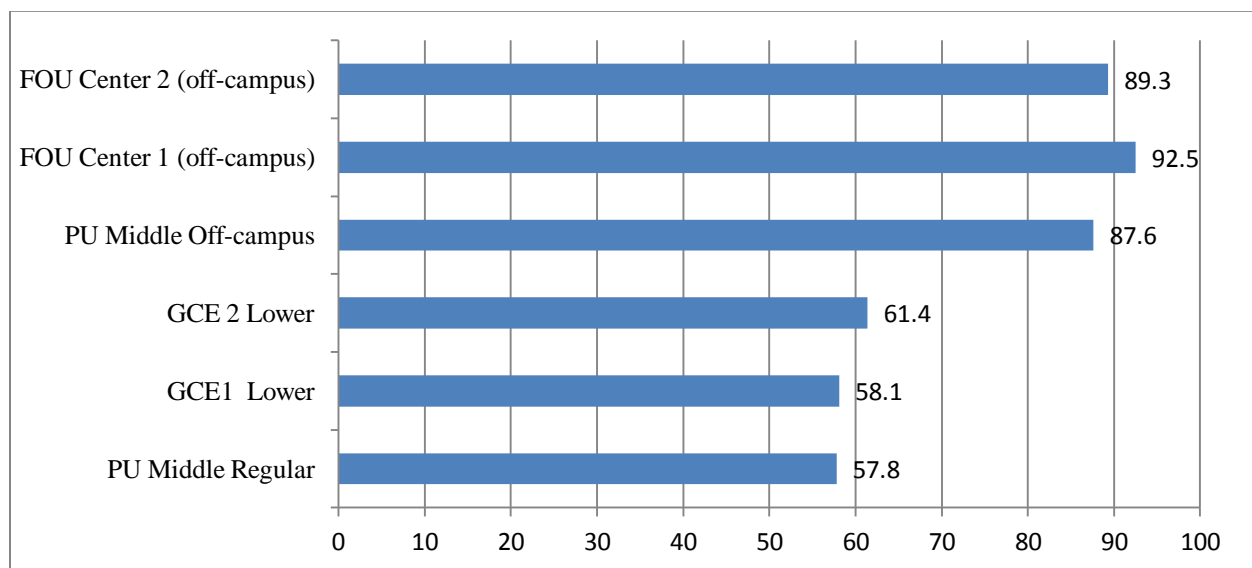
Created by Author; source of data: institutional surveys, Note: GCE = Government College of Education, PU = Public University, FOU = Federal Open University.

The interview participants in the regular programs argued that the institutions purposefully maintain high passing ratios in the off-campus programs as a marketing strategy to attract more students to these programs (focus group interviews with faculty), whereas focus on enrollment and producing a high number of graduates has resulted in compromises on the quality

of program implementation. Hence, the market approach has apparently driven institutions to emphasize the production of a high number of graduates, at the expense of the quality of the preparedness of the graduates.

SECTION 2: EFFECTIVENESS OF PROGRAM IMPLEMENTATION

This section analyzes the effectiveness of program implementation for different components of both programs, regular and off-campus, and the overall effectiveness of both kinds of programs. The analysis focuses on goals of traditional programs, requirements in traditional teacher education programs, background of program participants, indicators for learning opportunities in the programs, and the overall effectiveness of the programs. The evidence for this section was created by the analysis of survey data, and it is mostly percentages and composite averages of student and faculty scores. The findings show that both kinds of programs emphasize traditional unchanged program goals; however, the program requirements are relatively rigorous for regular teacher education programs. The off-campus program participants' average age is markedly higher, and the majority of them are in different careers. Although the indicators of program implementation for both types of program are much lower than the optimum level marked for this study, the comparison of the indicators shows that implementation of regular programs is better than that of off-campus market-model programs. Lower indicators for both types of programs show a significant dissatisfaction of the participants with the effectiveness of these programs.

Goals of Traditional Programs

The program heads and department chairs were asked to score seven different general categories of goals related to teaching, and two categories of goals related to non-teaching areas, in terms of how much weight was given to each category in their programs. The seven teaching

related categories of program goals focused on different broader areas of the curriculum of the programs designed to prepare participants for classroom teaching and their general role as teachers. The two non-teaching related categories of goals focused on different broader areas that prepared participants for school administration and for a general understanding of formal education. Each category consisted of several items, which were rated on a scale of 1 to 4, where 1 means no weight, 2 means some weight, 3 means moderate weight, and 4 means major weight. Composite average scores were developed for each category for both regular and off-campus programs, which provided averages scores on a category equivalent to the scale on the survey (1 to 4). Thus a higher score on a category means, on average, a higher weight to a particular category of program goals.

The analysis of goals across the programs indicates that, in general, the theories of education, pedagogical content knowledge, and general pedagogy received relatively more emphasis, and assessment of learning and school environment less emphasis, whereas curriculum content knowledge, knowledge about pupils and diversity, and preparation for future development as teacher are only minimally emphasized (see Table 15). None of the emphasized categories of program goals received major weight; however, the relatively more emphasized categories received moderate weight, and the less emphasized categories received some weight. This comparative analysis indicates that even within the emphasized categories of goals, some areas are not emphasized enough. Moreover, three other important areas for teacher education -- the study of school curriculum, the diversity of students, and the preparation for continuing professional development -- are given negligible weight, as their scores are close to 1, which means no weight.

Table 15: Comparative Analysis of Goals in Public Teacher Education Programs for Preparing Secondary Teachers

Category of Goals (Classroom Teaching)	Regular Programs (GCE &PU)	Public University (PU) Off-campus	FOU Centers	Optimum (major weight)
Pedagogical Content Knowledge	3.3	2.8	3.0	4
General Pedagogy	3.0	2.9	2.7	4
Assessment of Learning	2.2	2.2	2.6	4
Understanding of School Environment	2.1	1.9	2.0	4
Curriculum Content Knowledge	1.8	1.6	1.5	4
Knowledge about Pupils and Diversity	1.7	1.4	1.6	4
Preparation for Continuing Professional Development	1.4	1.4	1.5	4
Category of Goals (Non-classroom Teaching)				
Perspectives/Theories of Education	3.0	3.0	3.0	4
School Management and Administration	3.0	2.6	2.6	4

Created by Author; data source: institutional surveys (n=7 regular programs, n=1 public university off-campus, n=2 FOU center off-campus). GCE = Government College of Education, FOU = Federal Open University.

A close look at the emphasized and less emphasized areas of goals indicates that conventional teacher education programs for secondary teachers follow the traditional curriculum developed decades back, which focused on theory and a specific set of concepts for teaching particular subjects and developing understanding of conventional administrative and supervisory strategies. Bachelor of Education (B. Ed.) programs in Pakistan have traditionally been focused on developing subject area teachers for public secondary schools, some of whom would be promoted for administrative positions such as assistant head teacher or head teacher later in their careers. Analysis also indicates that the programs have not been informed by contemporary research, and they have not been updated to focus on areas such as the categories mentioned earlier that received minimal emphasis, yet are targeted by contemporary research as important for developing effective teachers.

In terms of a comparison between the two programs (regular and off-campus), weights on most of the categories are similar in certain ways. Central curriculum guidelines are similar for the teacher education programs in all public institutions, which have been given by the Higher Education Commission of Pakistan. Since all public teacher education institutions are required to follow central curriculum guidelines, written curriculum and program goals in all conventional programs are closely based on these central guidelines. However, the implemented curriculum could vary, apparently because of the effects of market approaches. The results of the analysis on the implemented curriculum are presented later in this chapter in the section on indicators of program implementation.

Requirements in Traditional Teacher Education Programs

A comparative analysis of the five major categories of program requirements shows that regular programs are fairly rigorous in terms of face-to-face course work, practicum or practice teaching, and the attendance requirement, whereas admission and graduation requirements are similar (see Table 16 for details). Conventional teacher education programs, both regular and off-campus are post-baccalaureate; therefore, entry requirements are a bachelor degree, with an overall average of 45% of total grades. However, no entry test is required for these programs, which indicates a long-standing traditional belief that anyone can become a teacher, and that, therefore, there is no need to assess dispositions and prerequisite skills. Passing the programs' requirements is in accordance with a general policy for higher education, which is the same across the country for public higher education institutions.

The differences between regular programs and off-campus programs in the requirements of course work, practicum/practice teaching, and class session attendance indicate a focus on a market approach to off-campus programs. Apparently it seems that regular programs are offered

111

in an on-campus mode; therefore, they require a sufficient number of hours for face-to-face participation in course work, and relatively more hours for practice teaching (practicum). However, it also reflects that face-to-face interaction between students and a professional faculty is considered important for the learning of students in the regular programs. Off-campus programs not only lessen the amount of face-to-face interaction, but also make the practicum and attendance requirements moderate in order to make their programs relatively easier or less rigorous. This is because the market approaches value selling the product while accounting for market conditions; therefore, less rigorous requirements give off-campus programs an advantage, in comparison to regular programs, to enroll a higher number of students, which apparently seems to be the case, as shown in the enrollment trends earlier.

Table 16: Comparative Analysis of Program Requirements in Conventional Public Teacher Education Programs for Preparing Secondary Teachers

Category	Requirements		
	Regular Programs	**University Off-campus**	**FOU Centers**
Admission (Entry)	Bachelor degree 50% or 45% grades	Bachelor degree 45% grades	Bachelor degree 45% grades
Courses	10 courses 510 hours face-to-face	10 courses 80 hours face-to-face	10 courses 10 hours face-to-face
Practicum	40 lessons 4 weeks	10 lessons 2 weeks	2 full-day workshops 2 days
Attendance	85% of classes	60% of weekly session	60% of workshop sessions
Passing Program	Course assignments 30% of grade Final exam 70% of grade Passing grade: 50% of grade	Course assignments 30% of grade Final exam 70% of grade Passing grade: 40% of grade	Course assignments 30% of grade Final exam 70% of grade Passing grade: 40% of grade

Created by Author; data source: program documents (n=7 regular programs, n=1 public university off-campus, n=2 FOU Center off-campus), FOU = Federal Open University.

Background of Program Participants

The analysis of participants' backgrounds reveals that participants in the off-campus programs are relatively older, on average, and a relatively higher percentage of them are already in a different career. By contrast, a relatively higher percentage of participants in the regular programs seek teaching as their life-time career (see Table 17 for details). In both the off-campus programs (PU off-campus and FOU Centers), the participants were about 9 years older, on average, than the participants in the regular programs. This correlates with the fact that a higher percentage of participants in the off-campus programs already had careers different from teaching. This correlation is predictable, rather than unusual, because people who are already pursuing a career have presumably spent some time in their jobs, and therefore are relatively older.

Table 17: Comparative Analysis of Participants' Background in Conventional Teacher Education Programs

Background Characteristics	Average of Participants		
	Regular Programs	University Off-campus	FOU Centers
Average age of participants	28.3	36.4	35.2
Participants with prior career	38.4%	63.8%	65.4%
See teaching as life time career	64.5%	43.2%	42.4%
High SES items at home	09.6%	22.4%	16.5%
Mother's education primary level or below	74.3%	77.1%	65.2%
Father's education primary level or below	21.4%	19.6%	17.5%

Created by Author, data source: student surveys (n=7 regular programs, n=3 off-campus programs), FOU = Federal Open University.

Predictably, these indicators also correlate with the fact that a relatively smaller percentage of participants in off-campus programs see teaching as their career. Putting together these three correlations, the question arises as to why these participants enroll in the teacher education programs. The straight answer by the interview participants was that either the high number of enrollees in the off-campus programs are in-service candidates who would get a pay

raise for additional qualification, or they get a teacher education degree to use in case they lose their current job. Since getting a teacher education certificate/degree through off-campus programs is quite easy, most of the candidates enroll in off-campus programs.

The findings of the participants' socio-economic status (SES) and their parents' education show that parents' education level is roughly equivalent across the programs, whereas the percentage of participants with high SES is slightly higher in the off-campus programs. The higher number of participants with high SES in the off-campus programs could be because of the fact that the majority of them already have jobs, and therefore have enough income to buy the items which indicate high SES background. Furthermore, the average age for participants in the off-campus programs is higher, which, in correlation with the high percentage of prior job holders, means that several of them may have had a stable income for a longer time, which resulted in their SES. Overall, the analysis of participants' backgrounds reveals some important insights about the selection of programs by the participants, as well as raises some important questions for future policy making/reforms and research. This point will be further discussed in the section on implications.

Indicators for Learning Opportunities in the Programs

The graduating students, or final semester/year students, and the faculty in the teacher education departments were surveyed on learning opportunities and tasks which enhance program participants' learning. These categories included the following: (1) opportunities to participate in progressive learning activities, (2) opportunities to develop understanding of teaching and learning, (3) opportunities to learn teaching for diversity and reflection on practice, (4) opportunities to learn about child development and social environment, (5) tasks to enhance learning in the field experience (practicum or practice teaching), and (6) the overall quality of

field experience (practicum or practice teaching). The rating scale ranged from 1 to 4, where for the first five categories, 1 means never, 2 means rarely, 3 means occasionally, and 4 means often, and, for the last category, 1 means disagree, 2 means slightly agree, 3 means slightly agree, 4 means agree. The composite average scores for each category were developed, as explained in the methods section. For a comparative analysis between programs and between students' and faculty's composite scores, line graphs (figures) were developed.

The analysis of the learning opportunities provided in different components of the two kinds of programs shows overall low indicators for the six categories of learning opportunities in these programs, and relatively lower indicators for these categories in the off-campus programs (see Figure 12 and Figure 13). An overall analysis shows that students' composite average scores (see Figure 12) for all ten programs are below 3, which means that students on average were not given learning opportunities, even at the frequency "occasionally." The composite scores by faculty for all the programs (see Figure 13) are also below 3 and are similar to the student scores, which reinforces the validity of the scores. Further, the scores by both students and faculty for almost all the categories of learning in the three off-campus programs range between 2 and 2.5, and are lower than the regular programs on almost all categories. Since the scores for categories of learning opportunities in the off-campus programs are closer to "rarely," this means that students in the off-campus programs were approximately rarely given opportunities for learning in the different components of the off-campus programs.

Figure 12: Student Composite Average Scores on the Six Categories of Learning Opportunities
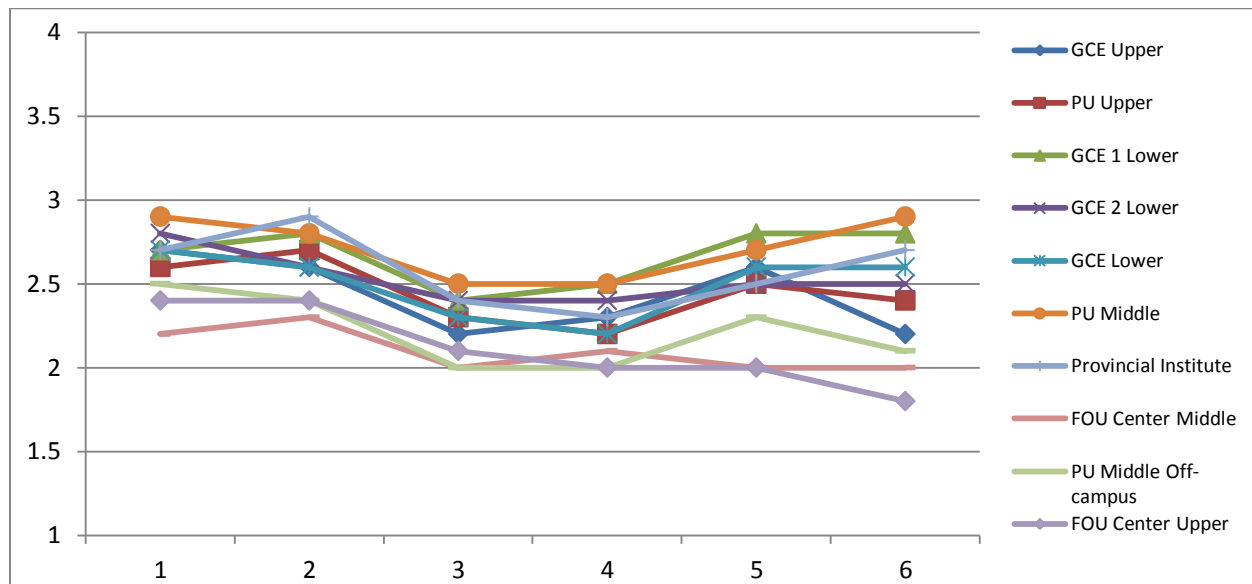
Note:- number horizontal axis mean as follows: 1 = Opportunities to participate in progressive learning activities, 2 = Opportunities to develop understanding of teaching and learning, 3 = Opportunities to learn teaching for diversity and reflection on practice, 4 = Opportunities to learn about child development and social environment, 5 = Tasks to enhance learning in the field experience (practicum or practice teaching), 6 = Overall quality of field experience (practicum or practice teaching). GCE = Government College of Education, PU = Public University, FOU = Federal Open University. (n=256 regular programs, n=140 off-campus programs)

Another significantly visible indicator in the student and faculty composite average scores is the lower scores for categories 3 and 4 of learning opportunities, compared to the other four categories in the programs (see Figure 8 and 9). The categories 3 and 4 focused on the opportunities to learn teaching for diversity and reflection on practice, and opportunities to learn about child development and social environment, respectively. These two areas were scored lower across the programs, as well as by almost all the participants, which strengthens the indicators. This finding resembles the findings discussed in the program goals section.
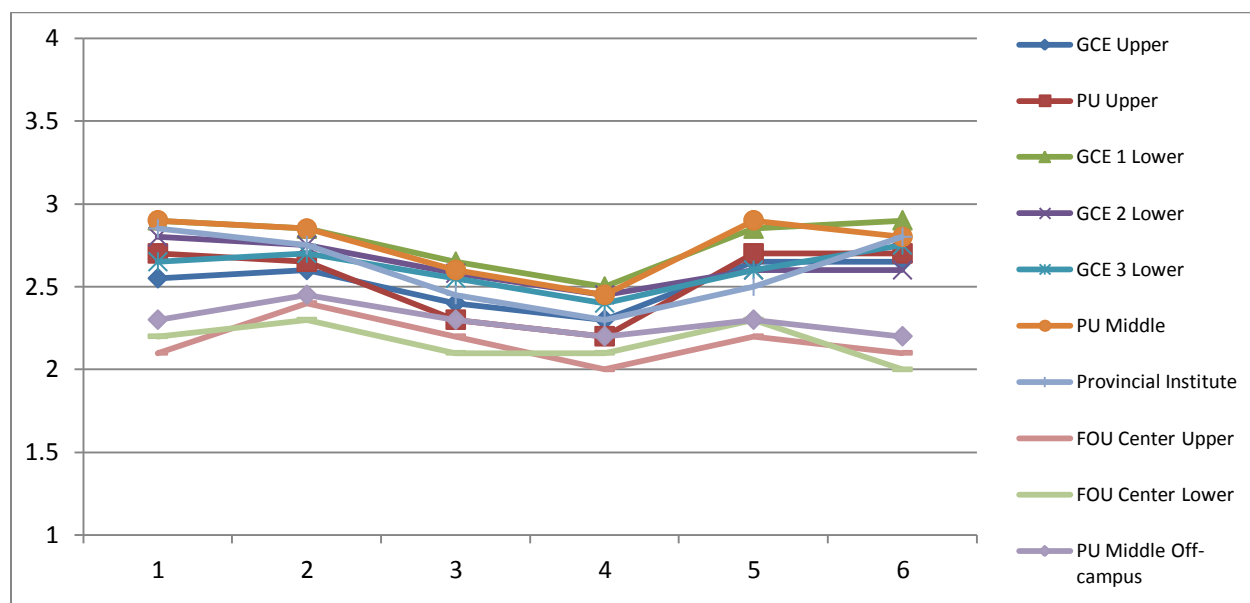
Figure 13: Faculty Composite Average Scores on the Six Categories of Learning Opportunities

Note:- number horizontal axis mean as follows: 1 = Opportunities to participate in progressive learning activities, 2 = Opportunities to develop understanding of teaching and learning, 3 = Opportunities to learn teaching for diversity and reflection on practice, 4 = Opportunities to learn about child development and social environment, 5 = Tasks to enhance learning in the field experience (practicum or practice teaching), 6 = Overall quality of field experience (practicum or practice teaching), GCE = Government College of Education, PU = Public University, FOU = Federal Open University. (n=94 regular programs, n=40 off-campus programs)

The two areas which scored lower are not focused on in the program goals because the program curriculum is based on national policy guidelines, and historically these curriculum guidelines have not been refined or updated, except for the recent policy initiative of launching a four-year honors program in which the curriculum is supposedly based on contemporary knowledge and practices. Moreover, because of the increase in market approaches, which in the Pakistani context mostly focus on making programs easy-to-complete, it appears that policy makers and institutions might not have pursued initiatives to upgrade the curriculum.

Comparative analysis between regular and off-campus programs shows that, although indicators for both types of programs are significantly lower than the optimum scores (4), overall

scores for the regular programs are slightly better than the scores of off-campus programs for all

the categories, and by both students and faculty (see Figure 14). The overall scores by students

and faculty for regular programs show quite similar trends, as the composite average score for

the first two and last two categories falls to around 2.75, and the scores for categories 3 and 4

drop to a little below 2.5. The scores by faculty and students for off-campus programs, both FOU

centers and PU off-campus, slightly vary in different categories, but they appear to be clustered

together, which indicates similarities within the program types (regular and off-campus).

Although it appears that the category about practicum/practice teaching (5 and 6) in off-campus

programs is overall scored low, the scores given by FOU center students are significantly lower

than those given by other participants.

Figure 14: Comparison between Programs as well as between Student and Faculty Composite Average Scores for Six Categories of Learning Opportunities in the Programs
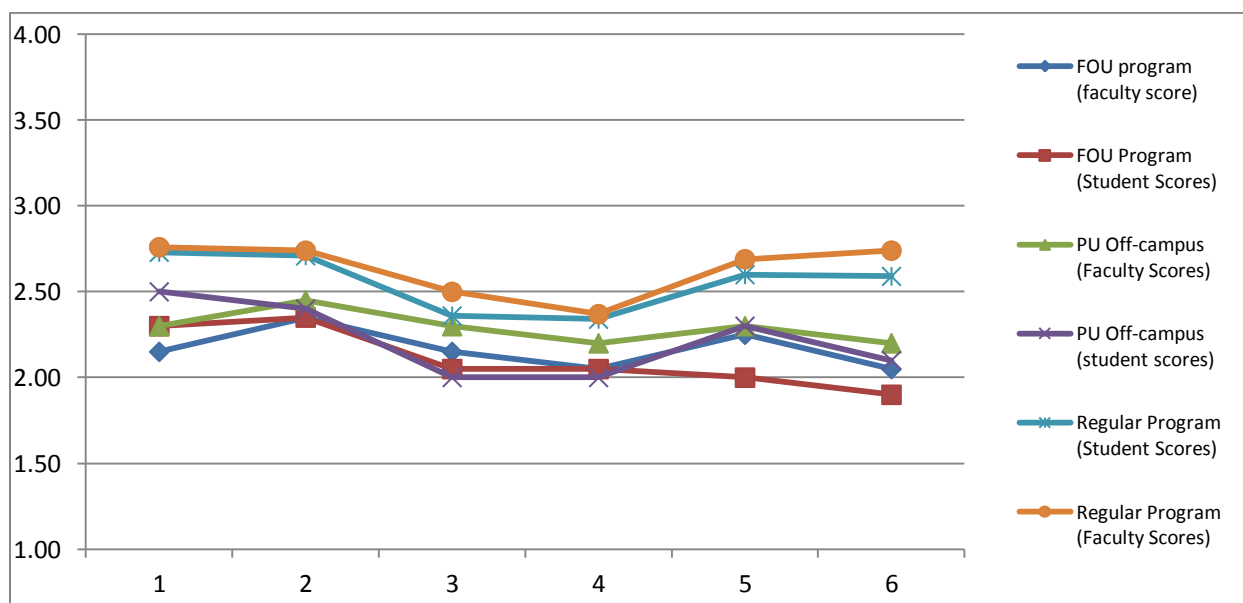

Note:- number horizontal axis mean as follows: 1 = Opportunities to participate in progressive learning activities, 2 = Opportunities to develop understanding of teaching and learning, 3 = Opportunities to learn teaching for diversity and reflection on practice, 4 = Opportunities to learn about child development and social environment, 5 = Tasks to enhance learning in the field experience (practicum or practice teaching), 6 = Overall quality of field experience (practicum or practice teaching), GCE = Government College of Education, PU = Public University, FOU = Federal Open University. (n=256 regular programs, n=140 off-campus programs; Faculty n=94 regular program, n=40 off-campus program)

The low scores on practice teaching/internship are due to the fact that Federal Open University (FOU) programs do not require a practicum; therefore, the low scores by their students seem reasonable. Overall, it appears that regular programs are relatively better implemented in terms of providing learning opportunities in all categories; however, the overall indicators for both kinds of programs are much lower than the optimum level needed to prepare participants effectively.

The analysis of indicators for overall program effectiveness show significantly low implementation of both types of programs; however, indicators for the regular programs appear slightly better than off-campus programs (see Figure 15). The survey participants (students and faculty) were asked to rate two categories of overall program effectiveness, and to answer one direct question about the overall effectiveness of their program, on a scale of 1 to 6, where 1 means strongly disagree and 6 means strongly agree. Comparative analysis between scores by faculty and students shows that participants in the regular programs scored their programs slightly higher than other participants. However, scores by students and faculty in both types of programs for all categories were scored around 4, which indicate that, on average, participants slightly agreed with statements indicating the overall effectiveness of the two program types. This analysis also indicates a significantly lower level of satisfaction of the participants with program implementation and with the effectiveness of both types of programs.

Comparative analysis between the two types of programs shows that approval for regular programs by their faculty and students was slightly better than the approval for the off-campus programs by their faculty and students. Student and faculty overall scores in the regular programs were a little above 4 (slightly agree), whereas student scores were a little below 4, compared to faculty scores around 4, for off-campus programs. This means that students in the

119

off-campus programs were significantly dissatisfied with the implementation and the effectiveness of their programs, whereas faculty in the off-campus programs seemed slightly satisfied with the overall implementation of their programs. For regular programs, both students and faculty seemed satisfied with the effectiveness of their programs only to some extent, which indicates that there were many gaps and areas in the implementation of regular programs which need improvement.

Figure 15: Comparison of Students and Faculty Composite Average Scores for Categories of Overall Program Implementation

Created by Author, data source student and faculty surveys (Students, n=256 regular programs, n=140 off-campus programs; Faculty n=94 regular program, n=40 off-campus program). PU = Public University, FOU = Federal Open University.
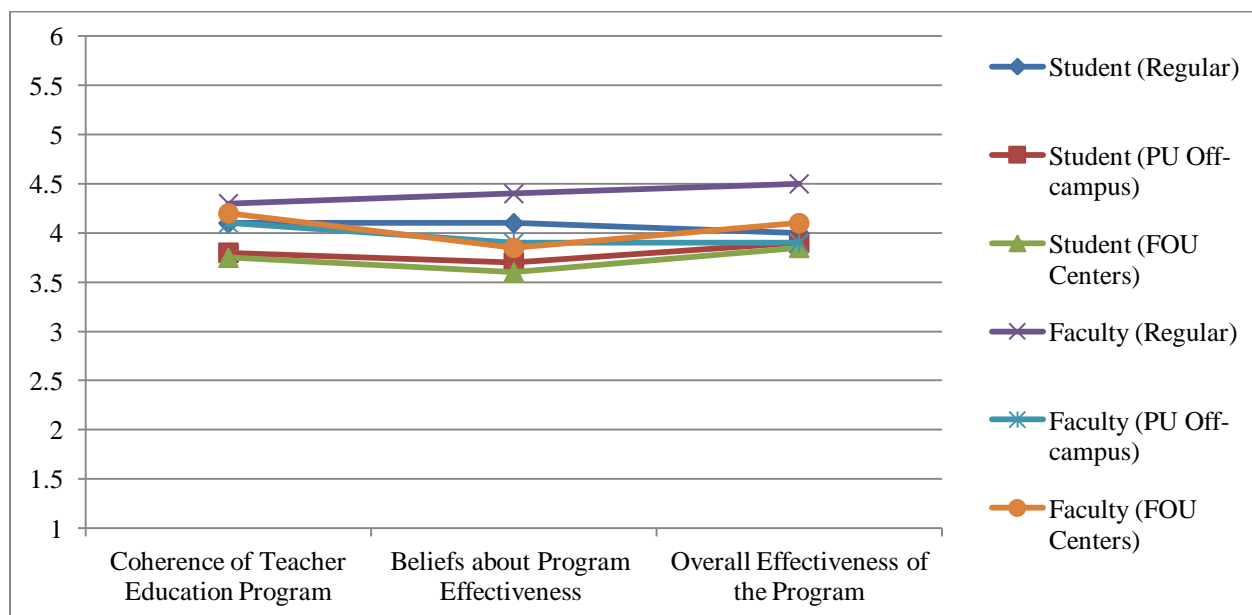
Here it is also important to understand that low indicators for the learning opportunities, particularly the categories on diversity of learners and students' social environment, in both types of the programs are not very unusual in relation to indicators for program implementation found in some international studies such as TEDS-M (Tatto et al, 2012). In the TEDS-M international

120

study of mathematics teacher education programs in seventeen countries, scores for some advanced countries, such as Germany, Chinese Taipei, and Norway, were found lower than the average (defined in their study), on the two categories that were found scored lower in this study. Hence, although the overall indicators for learning opportunities in the programs focused on in this research are low, these programs may have some areas which are better implemented than others, which can be identified in the specific subcategory-based or item-based analysis, as suggested in the analysis section earlier.

SECTION 3: IMPACT ON PROGRAM EFFECTIVENESS AND THE OVERALL QUALITY OF TEACHER EDUCATION

This section presents perspectives of faculty and program heads regarding the impact of the out-of-proportion growth in the off-campus market-model programs on the overall effectiveness of program implementation and on the overall quality of teacher education in the region. Most of the evidence for this section is based on analysis of the data from interviews which were conducted with groups of senior faculty and department chairs, and analysis of the data from informal conversations with faculty and heads of institutions/departments.

The findings on the participants' views show that the growth of the market-model off-campus programs has significantly impacted the implementation of the teacher education programs and the overall quality of teacher education in the region. While most of the interview participants in the regular as well as off-campus programs agreed that program implementation has been compromised, the two groups held slightly contrasting views on the effects of out-growth in off-campus programs. The participants in regular programs tended to point out overwhelming growth of off-campus programs as a significant reason for compromises in program implementation. While the participants in the off-campus programs argued that

competition to enroll high number of enrollment in both types of programs have affected program implementation, they also pointed out that the overall low quality of the public education system in the province contributed in these effects. Most of the participants reported many significant effects which have undermined the implementation of the programs, such as students' expectation of less rigorous work but high grades, struggles by regular programs to maintain enough enrollments, in contrast to overwhelmingly high enrollment in the off-campus programs, and in-practice compromise on many program requirements by institutions. The participants also believed that the overall quality of teacher education in the region has been degraded. They believed that teacher education is viewed as a business; the qualifications of teacher education degrees/certificates serve the function of "spares," like a spare wheel needed only as a backup; institutional innovations and reforms are missing; and the credibility of teacher education degrees/certificates has decreased.

Impact on the Effectiveness of Teacher Education Programs

The interview participants (senior faculty and program heads) were asked to provide their perspective on how the out-of-proportion growth in the off-campus market-model programs had impacted the implementation of the teacher education program at their institution. In general, the analysis reveals that the participants agreed that the overwhelming growth in the offering of off-campus market-model programs has had a significant impact on the implementation of all kinds of conventional teacher education programs. The analysis reveals three main categories of impact: students' expectations of less work but higher grades in regular programs; struggles in regular programs for enough enrollment that sharply contrasted with the overcrowded off-campus programs; and compromises on the implementation of many requirements by teacher education institutions.

Less rigorous work for high grades. The faculty in the regular programs reported that generally students were reluctant to accept rigorous work, but, on the other hand, expected high grades, and the faculty claimed that this was an effect of the lenient work requirements in the off-campus programs. The faculty in the off-campus programs also reported the same issue; however, they reasoned that it was an effect of the overall relaxed environment in the public teacher education institutions which caused students' expectations that they could get high grades and pass the program without working hard. The chair of a regular program described a decline in completing required work by students in this way:

> We were not able to ask students to work as much as we asked them to do before these programs (off-campus programs). It has definitely had a negative effect. It affected class attendance, the teaching skills of students, completion of assignments, even internships. Our students do not work well at their internship placements. They try to escape from there. So it definitely had a negative effect. (PU Upper Department Chair Interview, May, 2013)

A senior faculty member pointed out that the relaxation in work requirements for students was similar in both off-campus programs and regular programs, after several years of rapid growth of the off-campus market model programs. He claimed that students do not complete assignments and internships in their regular program because they know that these requirements are exempted in off-campus programs. He described the situation as follows:

> …distance learning mode based on Sunday classes (weekly classes) is so easy that one can easily complete a certificate (complete an off-campus program) by sitting at home without doing anything. Then why would students need to come to an institution (institution which offers regular programs) and attend classes regularly and complete assignments, complete practice teaching, complete annual teaching when, in those institutions, (institutions which offer off-campus programs such as FOU) and in off-campus programs you

just need to register and then get the degree? People even got a degree without appearing in exams (in off-campus programs). (GCE Upper Senior Faculty Focus Group Interview, March 26, 2013)

Most of the interview participants, faculty as well as department chairs, in the regular programs pointed out similar issues with regard to the relaxation of work requirements for students because the students who enrolled in their programs expected less work. The reason appeared to be the competitive market environment, in which off-campus market model-programs enrolled most of the students, using relaxation in their work requirements as an incentive. Here the institutions which were limited to offering only regular programs felt that they had no other choice but to similarly relax requirements of their students in order to get and maintain enough enrollments, and to compete in the market place.

Struggle over enrollments. The regular programs struggled to maintain sufficient enrollment, whereas the off-campus programs were overcrowded. As discussed in the earlier section on trends in enrollment, institutions which offered off-campus programs (such as the Federal Open University and some other universities) contained most of the enrollment in the conventional teacher education programs, roughly 90% of the total enrollment in Pakistan. Many institutions which offered regular programs struggled to obtain and maintain enough enrollment to fill the allocated seats (vacancies), because the overall requirements in the regular programs were rigorous, particularly attendance of classes and practice teaching. Most of the interview participants from colleges of education agreed that this was a big problem for their institutions, and a significant reason for compromising on the implementation of requirements. A senior faculty member in a focus group interview pointed out the problem for their institutions, and most of the other participants in this interview agreed with him, in this way:

They (students) don't attend here and don't go there (to off-campus programs) either. Now there is a little difference between here (at his institution which offered regular program) and there (FOU center for off-campus programs). Here at least some students come for classes and for practice teaching but their students only appear in exams and some of them even don't appear in exams (formal end of term paper-pencil tests). Now because of the cheapness of the degree (in the off-campus program), people tell me that professors (in regular programs) went door to door (used personal contacts and asked for favor) seeking potential students for admission in their college because new students were not seeking admission here since they were getting degrees freely (without doing any hard work) from those off-campus institutions. (GCE upper focus group interview March 26, 2013)

This issue was repeatedly emphasized by all the interviewees in the regular programs at colleges of education, and the claim was quite obviously supported by analysis of the enrollment data at six institutions, as given earlier in the section on enrollment trends.

The interview participants, including faculty in off-campus programs, agreed that the growth of off-campus programs, which have compromised program requirements, created significant problems for public institutions which offer regular programs to secure enough enrollment in their programs. On the other hand, institutions which offer off-campus programs were overcrowded with students. The faculty in the regular programs reported that enrollment in the regular programs decreased as the number of off-campus programs increased, which pushed their institutions to compromise on requirements. Overall, this indicates the dominance of institutions which offer off-campus market-model teacher education programs, while institutions which offer regular programs struggle to compete with them in order to maintain enough enrollment in their programs.

Compromise on program requirements. Analysis of the interview data reveals that, in practice, public institutions of teacher education significantly compromised on their requirements

listed in their program descriptions, and that the institutions did so because of the market approaches used by the off-campus programs. The significant areas in which programs compromised include flexibility in attendance requirements, tailored course requirements to make course work easy-to-complete, fewer and less rigorous assignments, and absence or inefficacy of practice teaching (internship).

Attendance of classes relaxed. The most commonly reported issue was the significant reduction in attendance of classes by students, because the institutions accepted less than the required percent of attendance, and still allowed students to appear in the final exams. Many faculty members in regular programs during their informal conversations with the researcher mentioned that students were given tacit approval at the time of admission that although required attendance was 85% of all classes, about 50% would be accepted. They said that even then many students did not show up for most of the classes, but were still allowed to appear in the final exam. The faculty in regular programs agreed that the compromise on class attendance requirements was done because of competition with off-campus programs, most of which did not offer classes (such as FOU centers) and accepted extremely low attendance rates for weekly or end of term sessions. One faculty member in a focus group interview stated that "We heard that they (faculty in off-campus programs) conducted some classes in the beginning (the beginning of growth in off-campus programs) but now it is zero attendance." A chair of the department recounted a similar observation, stating that

> So on the remote center (for off-campus programs) students don't go to attend classes whereas the center supervisor gives them a signature (confirms) for attending all classes. Classes are not conducted and instruction is not given, and students do not show up at all, but they pass the exams. (PU Upper Department Chair Interview, March, 2013)

Another department chair said that his program compromised on attendance and other requirements because the requirements were relaxed in the off-campus programs, and the competition with them pushed his institutions to compromise on requirements. He described the effects in these ways:

> The first effect (of off-campus programs) was that our students raised this question: "We are attending the whole week, whereas students in those programs only attend classes on Sunday. But they also get the same degree as we do." Those students do not submit assignments. They even do not attend Sunday classes. We (his institution) were in a competitive market; we also needed students (enrollment). We faced the problem of our survival. Hence, it had an effect on our quality (of implementation); it decreased (was compromised). (PU Middle Department Chair Interview, May, 2012)

A faculty member in a focus group interview pointed out that it was because no classes were required at the FOU center that her institution, in order to compete, also tacitly agreed on compromising their attendance requirement. She said, "How would we ask them (students in her program) to attend classes, whereas the FOU center allows everyone to appear in exams even without attending a single class" (PU Upper Faculty Focus Group Interview, April, 2013). The participants in the off-campus programs agreed that student attendance was a challenge in the regular programs. A Center coordinator for Federal Open University claimed, "The difference between distance learning and formal system (regular programs) is negligible. Neither teachers are regular nor are students regular in the formal system (regular programs)." (Coordinator Interview, March, 2012). In contrast to the views by the participants in the regular programs, the participants in the off-campus programs argued that it was not an effect of the growth in off-campus programs; rather it was the general bad conditions of teacher education and competition by the regular programs. A faculty in the FOU center off-campus program argued this way:

> But teacher education is in very bad condition generally in the country and particularly in this province. It (lack of attendance in the regular programs) refers to the general deterioration of standards in the province, and the regular system is also in competition with us." (Focus Group Interview Off-campus faculty, March, 2012).

Overall, an emphatically reiterated point was that, in practice, the class attendance requirements were compromised in regular programs, in order to compete with off-campus programs. Moreover, the compromise on class attendance requirements was accompanied with compromises in many other areas of program implementation.

Courses made easy-to-complete. Although the described course requirements were based on national curriculum guidelines, in practice many course requirements were relaxed to make the courses easy to complete for students. The course assignments were fewer, and were made less rigorous, so that the students could complete the courses easily. Moreover, in practice many faculty members in the off-campus as well as in the regular programs waived completion of their course requirements for many students. The following comments by the chair of the department of teacher education in a local university, which offered regular programs, illustrate the situation:

> We were not able to ask students to work as much as we asked them to do before growth of these off-campus programs. It (growth of off-campus programs) has definitely negatively influenced our program. It influenced the class attendance, learning of teaching skills by students, completion of assignments, even their internships. Many of our students do not work well at their internship placements. They try to escape from there. So it has definitely had a negative impact. (PU Middle Senior Faculty Focus Group Interview, June 28, 2012)

Many faculty members in informal conversations shared similar views, and they agreed that course requirements were significantly reduced in practice to ease students' completion of courses.

While faculty and coordinators in off-campus programs also agreed that course requirements were compromised, they claimed that off-campus programs were comparatively trying to do better. A coordinator at the Federal Open University center claimed,

> Look at the government institutions in different parts. Teacher education was best and exemplary in this region; however, now see the outlook of the buildings. It will suggest what is going on in those buildings. Comparatively we (in off-campus programs) are trying to make it better. For example go to those institutions (which offer regular programs) they do not make it necessary for students to prepare their assignments. They do not push for training and conducting regular lessons. They do not ask their students to prepare models (teaching resource materials) during their workshops. (Interview with center coordinator, March, 2012)

The above comments by the coordinator encompass what appeared to be a general view of the faculty in the off-campus programs, which clearly suggests that requirements were compromised in both the program types.

This finding also has a connection with the overwhelming proportion of students in off-campus programs that already had a different career and a full-time job. Because it is hard to do a full-time job and complete the requirements outlined for full-time students, it appeared that the institutions, particularly the FOU centers and other universities which offered off-campus programs, compromised on requirements and continued it as a marketing approach.

Practice teaching/internships compromised. In program descriptions, the practice teaching or internship was totally missing in the FOU Centers' off-campus programs. Other off-campus programs varied in their internship requirements, but they required significantly less time and number of lessons than required in the regular programs. However, many interview participants pointed out that in practice the program requirements for practice teaching were

compromised by both off-campus and regular programs, as an incentive and competition strategy to enroll a high number of students in their programs. Some interview participants said that a common practice in these programs was having students submit written lesson plans without actually practice teaching a lesson, whereas a few participants also said that many students would hire someone to write the lesson plans for them.

Overall, most of the participants agreed that many practice teaching (internship) requirements were compromised in both types of the programs; it was totally missing in many off-campus programs, and these compromises impacted the regular programs, which also, in turn, compromised on conducting lessons in their programs. The chair of the department for a regular program mentioned that exemption of the practice teaching requirement in off-campus programs had pushed them to relax this requirement for their students. He claimed, as mentioned earlier, that because of the influence of the off-campus programs in his region, "our students do not work well at their internship placements. They try to escape from their placements. So the off-campus programs have definitely affected us (his program) negatively." The chair said that competition with off-campus programs pushed them to compromise; otherwise they would lose enrollment. A group of faculty in a regular program agreed in their focus group interview that both the programs practically exempted these requirements, including other exam requirements. A faculty member in this group illustrated exemption of practice teaching as follows:

> They (students) do not conduct lessons here and do not go there either (in off-campus programs to conduct lessons). Now there is a little difference between here and there. Here some students come for classes and practice teaching but their students just go for final exams (without completing practice teaching requirement), and some of them even do not go for final exams because in some cases, they (off-campus programs) even do not get the original/real person but another person appears in the exam in place of them. (GCE Upper Senior Faculty Focus Group Interview, March, 2013)

In another example of a regular program, the faculty group mentioned that they only supervised and supported the students who wanted to conduct their practice lessons. If some students were not willing to conduct lessons, the faculty did not push for completion of the requirements. Similarly, an off-campus faculty group at a local university also stated that whoever came to conduct lessons was asked to conduct lessons at the center, at what they called micro-teaching, in which students simulated lessons in front of their classmates. They also admitted, though, that very few students conducted such micro-teaching lessons. Overall, it appears that the requirement for practice teaching, which was already very shallow in the descriptions of some off-campus programs, was significantly compromised in practice because of the market strategy to raise enrollments as high as possible.

Effects on the Overall Quality of Teacher Education in the Region

The analysis of interview participants' views about the impact of the growth in market-model off-campus teacher education on the overall quality of teacher education revealed some significant issues. Generally, many participants pointed out that growth in off-campus market-model programs has resulted in the degradation of the overall quality of teacher education, and it has undermined the importance of teacher education degrees/certificates in the region. The most commonly reported issues included teacher education viewed as a business, teacher education degrees acquired as spare degrees, absence of institutional innovation and reforms, and the decreased credibility of teacher education degrees/certificates. This section further analyzes each of these issues in turn.

Teacher education viewed as a business. Faculty in both kinds of programs pointed out a general perception, both in the public and in the institutions of education, that teacher education is viewed as a profitable business. Some interview participants pointed out that many

131

stakeholders in education increasingly specify teacher education, particularly through off-campus market-model programs, as a big enterprise of selling degrees. Faculty in regular programs strongly claim that the rapid growth of market-model off-campus teacher education programs was the reason that their institutions were pushed to adapt market approaches, in order to compete in the market place. A senior faculty member in a regular program sketched the process as follows:

> I think the distance education also exists in other parts of the world. But in other parts of the world it is under rules and regulations. However, here, FOU centers messed up everything. These centers sell degrees but these degrees are not fake; these are registered and on the record. (GCE Upper Senior Faculty Focus Group Interview, March, 2013)

Another focus group faculty interviewee added,

> It (FOU center) has opened shops even in small towns. Now even other universities have begun selling certificates. I myself was coordinator for a year for them, and there was no training (no sessions or classes). It was like a small get together over a cup of tea at the end of semester and supervisors signed documents for students (that they had completed the requirements). Even an agricultural university opened shops, even though they do not have department of education. (GCE1 Lower Senior Faculty Focus Group Interview, March, 2013)

The perception that teacher education has turned into a business enterprise was very common among the faculty as well as among chairs of departments. Similar to the above quoted views, a chair at a department of education which offered both regular and off-campus programs argued that his department began adapting market approaches because even non-teacher education institutions offered off-campus market-model programs and enrolled thousands of students. He reported that "We were really alarmed by the fact that the agricultural university alone awarded teacher education degrees (certificates) to more than twenty-five thousand

candidates in three years. Would you believe that? We had no choice. It was question of survival." Similar to this argument a coordinator at Federal Open University (FOU) center pointed out that "Agriculture University tried to fill their budget losses, and they introduced teacher education programs which were not their expertise. Regulatory bodies are ineffective so institutions do not abide by the regulations. Everyone is trying to mint money" (Interview with center coordinator, March, 2012).

The estimate of graduates from the agriculture university varied from ten thousand to twenty five thousand; most of the interviewees endorsed this range. However, the data about the programs offered by non-teacher education institutions was not published in national reports because these programs were terminated one year before the year of the education census (2006) in Pakistan, which was the first year of data gathering about off-campus programs. Overall, all of the interview participants noted that teacher education was viewed as a profitable business, and it was a common perception that institutions which offered off-campus market-model teacher education programs were reasons for the growth of market approaches.

Teacher education degrees as additional qualifications. The interview participants repeatedly brought up the point that many participants in the off-campus programs enrolled because they wanted to keep the teacher education certificate either as a spare degree or as an additional qualification, which resulted in a pay raise to the graduates who already had a career. They argued that many students who had a different career enrolled in the off-campus programs because it was easy to get a teacher education degree in these programs. A senior faculty member, in the focus group interview, argued that enrollment in the off-campus teacher education programs increased rapidly, particularly of students with prior careers in other fields,

because it was made very easy to complete. Another senior faculty member and coordinator of the science program expressed it this way:

> As I told you that it (teacher education programs) became just a formality. The students began looking around, and went to those programs (off-campus programs) where they could complete the program easily. They just look at easiness of the program. No preaching about quality affects their decisions. (PU Senior Faculty Focus Group Interview: June 28, 2012)

Another senior faculty member added how the off-campus programs were made easy-to-complete to attract more students, and that pushed regular programs to use market approaches as well. She said,

> Yes, they (students) choose the program where it was very easy to complete it. The guides (hired tutors) would write exams for them. They (students) do not attend any classes. Here (in the regular program) they are asked to attend the classes. So students are becoming more opportunists. They look at institutions in terms of how they help them to finish the program easily. So we also shifted to market strategy. (PU Senior Faculty Focus Group Interview, June 28, 2012)

Adding to this conversation, another senior faculty member further elaborated on the use of the market strategy:

> The off-campus teacher education programs have ruined the teacher education. They (institutions) are selling the degrees. And many people get and keep the teacher education degree as a "spare wheel"; to use it in case they lose their current job. (Senior Faculty Focus Group Interview, June 28, 2012)

Many of the other faculty members at other institutions, in informal and formal conversations, also used the phrase "spare wheel" to refer to a teacher education degree acquired by people already working in other fields. Survey data about students presented in an earlier section also showed that about 60% of students in the off-campus programs had a different

career, which strengthens this finding that professionals from other careers acquire a teacher education degree to use it as a "spare" degree.

The faculty and coordinators in the off-campus programs also agreed that participants in their programs obtained teacher education degrees as additional qualifications to get pay raises and promotions. However they defied that it was because of out-growth in off-campus programs and the strategies they followed; rather, it was because of the non-serious student population. A coordinator of Federal Open University center argued:

> Most of the students unfortunately are not interested in developing their learning. They come (enroll) just to obtain degrees to use them in their professional life and to get pay raise and promotions. But it is not fault with us or our methodology (model). When we have serious students they perform well. Particularly female students are comparatively more serious and they develop good materials and assignments. (Interview with center coordinator, April, 2013)

Most of the faculty in the off-campus programs, particularly in the Federal Open University programs, also argued along similar lines and claimed that although most of the students in their teacher education programs enrolled to acquire additional qualification, it was not the fault of the model of off-campus programs. An off-campus faculty in focus group interview argued that, "Compare to other institutions which offer distance programs (off-campus programs), our syllabus is higher standards. It is referred by other universities and we have an independent department which publishes high quality textbooks." (Off-campus Faculty Focus Group Interview, June, 2012) Although participants in the regular programs reasoned that program implementation was poor in the off-campus programs, they agreed that the quality of their textbooks published by the Federal Open University was substantial. Nonetheless, the findings suggest that most of the participants enroll in the off-campus programs to obtain an additional qualification.

Lack of institution-based innovations and reforms. Analysis of the interview data as well as institutional surveys revealed that most of the institutions lacked institutional motivation for innovation and reforms. It is obvious from the analysis presented so far that teacher education institutions, as well as (for a period) non-teacher education institutions, strongly competed through using market approaches to get as much enrollment as possible. This competition resulted in compromises on many requirements, making it easy for participants to complete the programs. Thus, most of the institutions mainly focused on how they could make their programs easy-to-complete, so that they could compete in the environment. Many participants mentioned that their curriculum and materials were three decades old, and nothing new was introduced, except the new four-year honors program through a national policy reform. A faculty member at a public university described the teacher education program as remaining traditionally the same for decades, and that only a few changes came through national policy reforms or mandates, which implies that the institutions themselves neither initiated any reforms nor brought innovations to the programs. In her words:

> When we look at the teacher education policies in last two decades, we do not see any difference in policies except that we have seen a rapid growth in the off-campus programs in teacher education. But overall, if we look at aims and objectives of teacher education, its syllabus, its modules, we do not see a difference. There has been no change in curriculum. Whatever it was thirty years ago, it is the same now. The only few changes I have seen are change in duration of program (four-year program), and inclusion of some advanced terminology. However, fundamental or basic courses in traditional programs are the same and its spirit is the same. (PU Senior Faculty Focus Group Interview, May, 2012)

This comment highlights that written curricula and syllabi have been the same for decades, and there have been no policy initiatives except the recent initiation of four-year honors programs through a federal government policy mandate. This fact also supports the view that there have

been no efforts at the institutional level to innovate or reform the curriculum or syllabus. Moreover, as the overall analysis shows, the market approaches have not only negatively impacted innovations and reforms at the institutional level, but have also negatively impacted implementation of the existing traditional curriculum and syllabus.

Decreasing credibility of teacher education certification. The interview participants and other faculty in their informal conversations with the researcher said that the public perception and credibility of traditional teacher education degrees/certificates in school systems has significantly decreased. Many interviewees believe that most of the participants in the teacher education programs are interested in merely getting a degree rather than learning, and institutions are interested in selling degrees, which has a negative impact on the quality of programs and the preparedness of their graduates. A senior faculty member in a group interview said, "I think there is a rule that if you have additional education (qualification) you get additional increments (pay raise). That is why lots of in-service people began coming to get teacher education certificates/degrees." This finding resembles earlier analysis that many in-service professionals in different careers have enrolled in teacher education programs. Hence, because it is easy to acquire a teacher education degree, its quality is generally perceived as low in scholarly circles, among school stakeholders, and within teacher education institutions themselves. A coordinator of the off-campus programs sketched the overall worsened functioning of teacher education systems this way:

> Whole teacher education system is suffering from moral crisis. From top to bottom, many morally corrupt
> elements are very much active. Teaching is not mere a job, it is a profession which requires honesty and
> dedication. We need to raise spirits. Corruption is the number one problem which has hampered the
> functioning of teacher education, particularly in this province. There are huge funds, huge buildings,

unnecessary staff, but this is not problem of quantity; this is a problem of qualitative development. (Interview with center coordinator, April, 2013).

Moreover, since many graduates of traditional teacher education programs were not prepared well, school systems, particularly private schools, did not value traditional teacher education degrees and certification. It came out in informal conversations that most of the private schools hire only academically better qualified candidates and they use their own in-service professional development mechanisms to train their teachers. Government system schools were also not satisfied with the quality of preparation; therefore, there have been whole-system in-service professional development reform programs, and teachers are trained through partnership with private teacher education institutions. Overall, it strongly appears that traditional teacher education degrees in both kind of programs, regular and off-campus, are given low credibility by the general public, by the institutions themselves, and by school systems.

SUMMARY

The findings were presented in three main sections, and they were compiled in three main categories. The first category of findings presented an analysis of the implementation of the off-campus teacher education policy related trends of growth over the past many years in Pakistan. The second category analyzed the implementation of different components of the programs, both regular and off-campus, as well as the overall level of effectiveness for these programs. The third category analyzed the impact of the growth in the off-campus market-model teacher education programs on the overall quality of teacher education in the region.

The findings in the first category consisted of four significant findings: out-of-proportion growth in enrollment in the off-campus teacher education programs; marked imbalance between the ratio of untrained teachers and the enrollment in teacher education programs; mismatch

between the increase in the number of teachers in the system and enrollment trends in teacher education; and emphasis on the quantity of graduates in place of the quality of their preparedness.

The findings in the second category focused on programs goals, program requirements, program participants' backgrounds, learning opportunities for students, and the overall effectiveness of the programs. The findings show that both kinds of programs emphasize traditional goals. Although the indicators of program implementation for both the programs are much lower than the optimum level, the comparison of the indicators shows that regular programs are implemented relatively better than the off-campus market-model programs. Lower indicators for both the programs show a significant dissatisfaction of the participants with the overall effectiveness of traditional teacher education program implementation.

In the third category, the findings of the participants' views show that the growth of the market-model off-campus programs has significantly impacted the implementation of the teacher education programs and the overall quality of teacher education in the region. Most of the participants reported many significant effects which have undermined the implementation of the programs, such as struggles by regular programs to maintain enough enrollment, versus overwhelmingly high enrollment in the off-campus programs, students' expectations of less rigorous work but higher grades, and, in practice, compromises on many program requirements in both kinds of programs. The participants also believe that the overall quality of teacher education in the region has been degraded. They believe that teacher education is viewed as a business, teacher education degrees/certificates are kept as spare qualifications or additional qualifications, institutional innovations and reforms are missing, and the credibility of teacher education degrees/certificates has decreased.

Overall, the findings reflect that the policies which have allowed off-campus teacher education programs have created a competitive but unregulated marketplace of teacher education in Pakistan. Conventional teacher education has suffered under the strong impact of market approaches, and quality as well as the effectiveness of program implementation has been significantly compromised.

CHAPTER VI

DISCUSSION AND IMPLICATIONS

The basic question this thesis endeavored to answer was how traditional teacher education program implementation is affected by the market approach policy in Pakistan. The first section of this chapter discusses the findings regarding different aspects of teacher education program implementation, and how these aspects are related to centralized education policies and to the introduction of market approaches in teacher education. The second section provides specific implications for the policy and program reforms, and for future research. Implications for policy and program reforms focus on policy making, policy and program evaluation, and further policy and program reforms. Implications for future research focus on research on the effects of polices and on evaluating the successes and challenges for new policy and program initiatives.

SECTION 1: DISCUSSION OF FINDINGS

Unchanged Program Goals and Lack of Institution-based Reforms

The relevant findings are first briefly recapitulated here before turning to a discussion of them, in order to situate the discussion in the context of the findings. The findings show that the goals of traditional teacher education programs, both regular and off-campus, have been unchanged for several decades, and they mainly focus on theories of education and pedagogical content knowledge. The goals do not focus significantly on several important areas, such as understanding learners and their diversity, curriculum content knowledge, preparation for teachers continued learning, and understanding of school environment.

One important finding noted above is that the stated goals of teacher education programs examined for this study have remained unchanged for decades. The two areas where there is the

least emphasis include understanding the diversity of learners and their family background, and learning for continuing professional development. These relatively new areas in the field of teacher education, if included in programs' goals, would indicate the intent to introduce continuing improvement reforms in the programs. One reason seems to be that because policies are centralized in Pakistan, mostly made by federal or provincial government ministries and departments (Ali, 2009; Ahsan, 2003), teacher educators and teacher education institutions lack sufficient independence to initiate and continue reforms on their own. In Pakistan, teacher education institutions are strictly required to follow central policies; therefore, they do not focus on reforming programs or initiating innovations on their own. Moreover, because there is no focus on program improvement or evidence to demonstrate program success, the programs have become vulnerable to market approaches, introduced by the government using reform arguments. The findings indicate that the ways market approaches are being used in Pakistan have degraded program implementation even more, and they have replaced reforms that could have improved traditional programs.

Compromise on Program Implementation and Unchecked Market Approaches

The findings on program implementation demonstrate that the traditional teacher education programs, both regular and off-campus, have several gaps, and many components of the programs are being implemented at only negligible levels. Moreover, as most of the faculty participants noted that what is focused on in program goals and what is described in program requirements are implemented very poorly. Traditional programs emphasize mainly theoretical aspects, but even theoretical understandings are not developed sufficiently. While in program descriptions, course work requirements, assignment requirements, and final exam requirements appear easy to complete, implementation of these components is compromised significantly.

Overall, implementation indicators for both the program types are very low. On the categories about learning opportunities for students, participants' scores indicate that, on average, students get such opportunities at somewhere between rarely and occasionally, and off-campus programs are scored closer to rarely whereas regular programs are scored closer to occasionally. Moreover, scores of the indicators of the categories on the overall effectiveness of the programs are significantly low, mostly around "slightly agree," which shows a significant dissatisfaction of the participants with overall program implementation and effectiveness.

The significant compromise on implementation of different aspects of programs, as illustrated above, seems strongly related to market approaches, because institutions compromise on program elements as an incentive to attract more enrollments. While the general logic is that market approaches may lead to more competition, and thus result in a better product, the results in the case of Pakistan indicate backward effects, as data and indicators show that program implementation and the overall effectiveness of teacher education programs have decreased. Market approaches may work better under a strong check and balance system, but such a system is significantly lacking in the case of Pakistan. Market approaches have mostly gone unchecked by different stakeholders. Even detailed data about enrollment in market-model off-campus programs is still not available, and the overall data was not published until 2006, the year of the education census in Pakistan.

Market Approaches and the Deterioration of Internships

A significant effect of the takeover by market forces is serious deterioration in the implementation of an important component of teacher education programs: internship or practice teaching. The logic behind inclusion of this component in teacher education programs, which seems universal, as has been found in several international studies (such as TEDS-M reported by

143

Tatto et al, 2012; TIMSS 2008 reported by Mullis, Martin, Robittaile, & Foy, 2008), suggests that internship experiences significantly shape the way teachers teach in real classroom settings, and they help participants develop practical teaching skills (Darling-Hammond & Snowden, 2007). However, traditional teacher education programs historically have been less focused on this area, and some earlier studies showed that teacher education graduates in Pakistan significantly lacked practical teaching skills (Kizilbash, 1998; Davies & Iqbal, 1997). Further, market approaches in teacher education have undermined the value of the internship or practice teaching because they are totally missing in off-campus market-model programs, whereas regular programs, in an effort to compete with the off-campus programs, have significantly reduced efforts to engage participants in teaching in the real classroom setting. While the practicum component is aimed at developing participants' practical classroom teaching skills, and is considered a significant feature of successful programs (Darling-Hammond & Snowden, 2007), most of the programs in this study have made even this component a theoretical/conceptual formality, by only requiring submission of traditional written lesson plans. This is a significant effect of market approaches, which, in an effort to make programs less challenging, focus on attracting higher enrollment by reducing the requirements still upheld by regular programs, particularly the internship requirement.

Disconnected Centralized Policies and Lack of Checks and Balances

Two relevant significant areas which could effectively provide checks and balances have also been affected by centralized and ineffective policies. First, there is a lack of an effective professional monitoring system and accreditation for teacher education, which could work as a check for better implementation of programs. Although a government body under the federal government was established recently in Pakistan, called the National Accreditation Council for

144

Teacher Education (NACTE), it lacks teacher education representation, with an over-representation of bureaucrats, and it functions strictly under federal government policies. The information about the council members on their website shows that half of the 20 members are government bureaucrats, and that most of the professional member slots are vacant (NACTE, April 10, 2014). However, it would be premature to say much about the effectiveness of this newly established body because it still seems in the process of being established, and it might eventually bring positive effects, rather than turning into another addition to the historical precedent of highly bureaucratic structures in Pakistan.

While government policies and bodies are centralized and somewhat bureaucratic, resulting in the lack of an effective monitoring system, a few effective professional accreditation organizations could work as an appropriate monitoring mechanism. However, the culture of professional interaction for improvements and innovations has not developed within institutions and among institutions, and teacher educators have not been able to develop their own professional accreditation bodies to oversee and support the effectiveness of teacher education programs because of centralized bureaucratic and politicized policies (Ali, 2012; Nayyar & Salim, 2006), which are not flexible enough to allow and encourage professionalism in public teacher education institutions. The centralized process of policy making hardly values input from teacher educators and teachers, and mostly does not engage them in professional and scholarly dialogue, conversations, and debates. Since teacher education institutions are heavily dependent on guidance provided by central government policies, and they wait for instructions from the central government on any initiative, they lack the required professional independence.

The second area which could work as an effective check and balance is the competence and merit based hiring of graduates in the market, such as school systems, for the teacher

education graduates from public institutions. For example, competence-based appointments of new teachers may filter out less prepared graduates, which could push teacher education institutions to raise and maintain the quality of their programs. However, in addition to teacher education policies, teacher recruitment policies are also highly centralized and politicized (Malik, 2007), and, as a result, appointments are mostly made under the political and bureaucratic influence of central government officials. Hence, politically favored candidates are appointed as teachers, whereas many more competent candidates and competent graduates are not appointed because they lack political support/favor from the politicians in the government. Since the appointments of new teachers are not merit-based and competence-based, the checks and balances on teacher education have not been established through valuing the well-preparedness of graduates in the appointment of new teachers. If school communities are allowed to appoint their own teachers, it seems there is more probability of recruiting competent teachers, because school communities would recommend more competent teachers, as they presumably care about the education of their children. In the existing structure, communities are involved at a minimal level in parent and teacher organizations.

In addition to compromising the value of teacher competence, central recruitment policies allow for appointments of non-qualified individuals as long as they are qualified in their subject or have any other academic qualification. One can argue that because traditional teacher education programs' quality has been seriously compromised, it seems reasonable to recruit academically better qualified candidates, and to train them on-the-job, a common practice in the private school system sector in Pakistan (Ali & Farah, 2007). This situation represents serious challenges to traditional teacher education programs.

Interconnection between Policies, Market Approaches, and Program Implementation

The discussion so far shows interconnections between stagnant and highly centralized policies, traditional teacher education program goals and poor program implementation, and the use of market approaches, all of which have resulted in the degradation of the quality of teacher education, and in the takeover of teacher education by market forces. To illustrate further, since policies are highly centralized and the policy making process is politicized and bureaucratic, there is little room for the development of professionalism and professional interaction in the public teacher education institutions. Historically, lack of professionalism and professional bodies, lack of proper monitoring mechanisms, and lack of checks and balances have allowed market forces to grow and influence institutions and programs, and thus the quality of program implementation has been seriously compromised. Disproportionate expansion of market-model off-campus programs is a significant outcome of this, as the findings show that teacher education has become a business of earning money for institutions, whereas the quality of program implementation and teaching has been degraded. Obviously, institutions involved in program implementation lack professionalism, and they reap financial benefits because of market approaches that work as an incentive for them to further decrease program requirements. Teacher educators are the ones who should primarily implement programs and strive through professional and scholarly efforts to make them effective by bringing about reforms and innovations in their programs.

Centralized Policies and Challenges for New Reforms

Although policy making in teacher education is highly centralized, there have been some significant positive developments recently. By recent constitutional amendments, higher education policy making has been decentralized to the provincial level, although policies still

seem to remain centralized by the provincial governments. Moreover, in 2009, initiation of four-year honors teacher education programs and two-year advance diploma programs for preparing elementary teachers, with the funding support of USAID Pakistan, is a significant development. These programs are still in the initiation phase, and have been implemented in selected institutions. Moreover, these programs are post-K-12 education, and they are comprehensive in their goals, while they encompass many contemporary areas of development in teacher education which have not been included in traditional programs. The reports (Education Development Center, 2013) on these programs also show that teacher educators have been engaged actively in the process; hence these programs are more likely to promote professionalism among teacher educators.

Another important aspect of these programs is that they value professionalism for school teachers based on the assumption that post-K-12 four year programs, similar to the programs for many other professions, enroll and prepare candidates who are genuinely interested in the teaching profession. Here the assumption is that candidates who invest four years in a specialized program for teaching are highly likely to continue teaching as their career and to work as professionals. The graduates of these programs are also more likely to be interested in teaching as a career compared to graduates of traditional teacher education programs, because graduates of these newer programs only specialize in teaching specific subject areas, compared to the traditional teacher education programs, in which graduates already hold an academic bachelor degree in a subject area. Having an academic degree in a subject area allows the graduates of traditional teacher education programs to acquire jobs different than teaching, and use the teacher education qualification not to get into teaching but to get a pay raise in a different profession or

occupation. Indeed the findings of my study show that a high proportion of program participants'
in off-campus programs have a career different from teaching.

While the policy initiative for four-year teacher education programs is a significant
positive development also emerging from the central government, policies still allow offerings of
traditional teacher education programs, and off-campus market-model programs still constitute
the overwhelming proportion of enrollment. Thus the traditional off-campus and regular teacher
education programs still continue to exert significant influence on the quality and effectiveness
of teacher education programs. Here a basic question is why the effects of market-model off-
campus programs have gone unchecked, and continue to be unchecked, in view of the new
policies. Lack of accountability over these market approaches is common, and even the data
about enrollment in these programs was not published until the year of the education census in
2006 (AEPAM Islamabad, 2007). The Federal Open University still does not publically publish
specific data on the enrollment and graduation rates for their programs, while it hosts most of the
off-campus program business in Pakistan.

It seems that market-model programs dominate the teacher education market, and many
teacher education institutions financially benefit from offering these programs, yet public school
systems are the most directly impacted by these programs because they receive poorly prepared
teachers. However, public school systems do not respond effectively because they themselves
suffer from centralized policies and bureaucratic and political influences. Teacher education
institutions, including their faculty, generate funds by offering the off-campus market-model
programs, and, consequently, they continue offering these programs. The education policy of
2009 stated that all programs would be replaced by four-year honors programs by 2018;
however, the process seems much slower, and most of the institutions still offer only traditional

programs. For the most part, the selected institutions that have been funded in the reform

project, Pre-service Teacher Education Project Pakistan, funded by USAID, offer four-year

teacher education programs (USAID, 2010), and they are only for the preparation of elementary

teachers. These policy initiatives and the initiation of four-year programs seems a significant step

in the direction to improve the quality of teacher education in Pakistan. However, the

continuation, improvement and growth, and sustainability of these programs can be challenging

in a teacher education environment in which traditional off-campus market-model programs

continue creating and dominating the teacher education markets in Pakistan.

SECTION 2: IMPLICATIONS FOR POLICY AND RESEARCH

Specific implications for policy making, policy reforms, and policy evaluation, as well as

for future research, are discussed here. The specific implications for policies focus on regulating

teacher education markets, the sustainability of reforms, developing professionalism in teacher

education institutions, continuous monitoring and improvement of teacher education programs,

publishing detailed data about teacher education programs, and integration of policy making and

policy evaluation. Specific implications for future research focus on researching the effects of

policies, further national studies on the effects of growth in market approaches in teacher

education, and researching the effects of the newly initiated four-year teacher education

programs.

Implications for Policy Making, Policy Reforms, and Policy Evaluation

      Regulating teacher education markets. The findings of this research show a significant

impact of the incentive policies to increase the quality and quantity of teachers in Pakistan via

the use of market-model off-campus programs. The policy; however, seems to have unintended

consequences primarily manifest in the disproportionate and unregulated growth of off campus

programs, paradoxically resulting in a decrease in the quality of teacher education programs. A small proportion of teachers remain untrained, compared to the huge enrollment in the off-campus programs, which mostly consists of participants who have already had careers in different fields and who enroll in these programs to obtain a credential which they use for promotion and raises unrelated to teaching. Why, then, is there continuation of huge enrollments in the off-campus programs if these programs do not seem to be addressing the issue of untrained teachers? The results of this study suggest the need to re-evaluate the policies which have allowed the institutions to offer the off-campus programs with no limit of enrollment, and the current teacher education offerings (all of them) in an effort to improve their quality. Education Policy 2009 (Ministry of Education Government of Pakistan, 2009a) already recommends phasing out the traditional teacher education programs; however, allowing new four-year honors programs within an unregulated market of off-campus programs needs serious consideration in light of the possible negative effects on the quality, sustainability, and growth of these new programs.

While regulation of teacher education markets is important to improve the quality of program implementation, it is important to understand that this study does not show that the distance learning model itself is a problematic approach; rather, it shows that the unregulated market dominated by off-campus programs is problematic because it results in many compromises in program implementation. The unregulated market has served to give teaching credentials to those who do not intend to teach, and it has further undermined the traditional teacher education programs. Further, according to UNESCO (2014) reports on education for all, Pakistan has severe shortage of teachers needed to achieve education for all goals. If all school age children in Pakistan enroll, there will be a need for many more teachers to maintain a healthy

student-teacher ratio. That is why teacher education programs are important to provide qualified teachers; however, a regulated market under strong checks and balances, which is continuously informed by research evidence, will ensure the quality of program implementation and the provision of well-qualified teachers.

Sustainability of reforms and development of professionalism. The sustainability of teacher education reforms has been a serious challenge in Pakistan; hence the newly initiated teacher education reforms such as four-year teacher education programs, and similar other reform programs, are highly likely to encounter challenges for their sustainability, once the project support from USAID ends. Some policy initiatives can help to sustain these programs and can help in the further development of these programs. Putting a limitation on enrollment in the off-campus programs may help institutions which offer regular teacher education programs to worry less about losing enrollment to the institutions which offer off-campus programs. Such competition and fear lead to compromises on program implementation in the regular programs; once they are removed, the institutions can focus on improving and sustaining the quality of their regular program offerings, including the new four-year honors program.

Further, sustaining the teacher education reforms and improvements requires that institutions pursue their own initiatives for developing evidence-based innovations, which can be achieved through instilling professionalism and scholarly discourse in teacher education institutions. Continuous professional and scholarly interaction among teacher educators within institutions and among institutions is important for the development of professionalism. Policies should allow institutions to initiate their own variations under a wider framework for teacher education programs; this could provide required independence to the teacher educators to engage in professional and scholarly interaction, rather than always waiting for the center to guide them

for any reforms. Leaving this without checks and balances may have a negative impact; therefore, policies must be reformed to create checks and balances between teacher education institutions and school systems. Giving school communities independence to appoint their own teachers will allow them to appoint more competent teachers suitable to the needs of the schools, and this may work as a strong check and balance on teacher education institutions, pushing them to raise and maintain the preparedness of their graduates.

Continuous monitoring and development of policy research institute. Further, there is a need for developing a continuous mechanism for monitoring and evaluating the effects of new policies and programs and their contribution to educational institutions and achievements at regional and national levels. One effective way of doing this is through ongoing rigorous research on the effects of policies and reform programs, and through informing further policy and program reforms by valid research-based evidence. Currently Pakistan does not have a structure to provide continuous research-based evidence to policy makers and policy reformers. The Academy for Educational Planning and Management (AEPAM) Islamabad is the only institution which provides compiled data, which in many ways is not detailed enough to carry out the needed analysis to answer many research questions. Creating a specialized research institute for research on education policies at the national level will provide ongoing research-based evidence, as is the case in many other countries (such as in Sri Lanka with the NIE, Singapore, and Finland) . The research-based evidence provided by this proposed institute would also help in effective monitoring and evaluation of the effectiveness of teacher education programs, through triangulation with professional accreditation bodies and the checks and balances of school systems.

Publishing detailed data about teacher education programs. There is a need for effective policy to ensure the publication of valid and detailed data by the teacher education institutions about all aspects of their programs. Currently, AEPAM Islamabad publishes annual data on education; however, it is not detailed enough and does not provide data on many variables and indicators about teacher education. For example, AEPAM Islamabad reports do not provide detailed institution-based and program-based data. Lack of published data creates challenges for informed policy making and analysis, because evidence which could come through analysis of the data cannot be established to inform the policy. For example, enrollment in off-campus programs grew out-of-proportion, but no evaluation was done, and even data on off-campus programs was not included until 2006. This policy should bind all institutions to publish their data in a publically accessible forum, such as their website, because it helps in carrying out research by scholars which could effectively inform new policy reforms.

Integration of policy making and policy evaluation. Another strong policy suggestion based on the findings of this study is integration in policy making and policy reform, as well as integration in assessing and evaluating policy effects. Disconnection between policies allows market forces to take advantage in different education markets. One example is the policy which allows pay raises for any additional qualification. This policy could have a positive effect if the pay raise was only given for an additional qualification in the specialized work area of an employee. The findings in this study indicate that the policy for pay raises for any additional qualification might have substantially contributed to the out-of-proportion enrollment in off-campus teacher education programs because it is relatively much easier to complete these programs. However, the out-of-proportion enrollment had negative effects on the quality and effectiveness of traditional teacher education programs. Similarly, the policy of central

154

appointments of new teachers is not well integrated with the policy on teacher education reforms because central appointments suffer from political and bureaucratic influences, thus resulting in appointments of less competent teachers. Allowing schools to appoint their own teachers seems more integrated with policies to improve teacher education, and to develop checks and balances for improving the quality of teacher education programs. Hence, integrated policies should be developed so that one policy will not have negative effects on the results of another policy or other policies. The evaluation of the effects of policies also should be done through integrated evaluation of related policies or related aspects of policies.

Implications for Future Research

It seems that there is a severe lack of research on the effects of education policies in general, and on teacher education policies, in particular, in Pakistan. Policies are created, but no effective follow up is undertaken on the success or challenges resulting from them. Research on the effects of policies could help in doing effective follow up and, ultimately, making necessary policy reforms or changes. Hence, overall, there is an utmost need for research on the effects of different policies on particular aspects of education, including teacher education in public and private institutions.

Further, there is a need for a national study, based on the findings of this research, to understand the effects of off-campus market-model programs on teacher education at the national level. Off-campus programs are offered across the country in the public as well as the private teacher education institutions of Pakistan, and they are offered for preparing teachers for all school levels. This study only focused on traditional teacher education programs for preparing secondary teachers in a southern province of Pakistan. Therefore, research should be done at the regional and national level in order to assess how the out-of-proportion growth in off-campus

programs has affected the quality and effectiveness of teacher education programs in different parts of Pakistan.

In addition, another significant area which we need to understand is what causes the overwhelming enrollment in the off-campus programs. This study indicates that pay raises in combination with easiness of completion of programs may work as a significant incentive for enrollment. However, a study with a specific focus on this issue needs to be done to determine why and what kind of students enroll in different teacher education programs, particularly in off-campus programs. Further, it is important to know what motivates them to enroll in the off-campus programs and where they work after completion of their program, or how they utilize their teacher education credentials.

Moreover, there is need for a comprehensive study on the effectiveness of the recently initiated four-year teacher education programs, particularly on what could inform sustaining and improving these programs. There are several challenges in terms of institutional capacity, as well as in terms of teacher education significantly dominated by market-model off-campus programs. It is also important to assess systematically the effectiveness of the new program in terms of its efficacy in preparing participants for their role as teachers in the markedly diverse contexts of Pakistan, which include distinctions between rural and urban settings, more educated and less educated groups, conservative and liberal ideologies, and many more. Assessing and evaluating how the new four-year program is being implemented in different regions and in different institutions, its strengths and challenges, and how regional issues could be addressed in terms of physical as well as human resources to implement these programs sustainably – these are all crucial research issues.

This study shows that the incentive policies by the government to increase the offerings of teacher education through unregulated markets have significantly affected the implementation of the programs in both regular and off-campus programs. However, it should be made clear here that there could be possible additional factors or challenges for teacher education program implementation, even when markets are regulated. The capacity of institutions in terms of physical, technological, and human resources is a significant area of concern. Therefore, research should be done to understand possible additional factors which may affect the effectiveness of teacher education programs.

SUMMING UP

The incentive policies to encourage market-based teacher education programs, particularly off-campus programs, have led to the overwhelming expansion of an unregulated market for off-campus teacher education programs – an unintended result of otherwise well intended policies. In summing up, the discussion here highlights how centralized and stagnant teacher education policies, lack of professionalism in teacher education institutions, dominance of market approaches, and lack of checks and balances by school systems have allowed serious compromises on program implementation and the quality of traditional teacher education programs. These issues warrant addressing policy challenges, regulating teacher education markets, and creating effective checks and balances which will lead to effective reformation of teacher education. Initiation of four-year honors programs is an appropriate development; however, policy issues and the unregulated teacher education market pose a serious challenge for development and sustainability of these programs. The market takeover of teacher education in Pakistan is a serious challenge, and it results in many complications, including compromise on program implementation. Therefore, markets need to be regulated, and professionalism in

teacher education needs to be developed and strengthened for sustainable teacher education reform. There is need for more policy reforms and continuous rigorous research on the effectiveness of policies and the continuing development of teacher education programs.

APPENDIX

Focus Group Interview Questioning Guidelines

Deans/Chair and Faculty Members of Teacher Education Institutions/Colleges

Background to be shared with each participant

The national education policies since 1998 have allowed the private sector to offer teacher preparation programs. The policies have also allowed public or private institutions (regardless of their basic areas of specialization) to offer open and distance learning programs. Therefore, we see a variety of teacher preparation programs in Pakistan which range from 2 months to five years in length and significantly vary in curriculum. One of the significant policy features was allowing teacher education institutions to offer off-campus programs. We also see a diverse picture of school education as a result of the rapid growth of the private sector in education. Different school systems may vary in their requirement for teacher preparation. This interview will focus on your views of this policy and how it has affected generally the teacher preparation program, specifically the implementation of the program/s in your college/institution.

Questioning Guidelines:

How is the teacher education policy in general seen by your institution?

How do you view the policy of allowing off-campus teacher education programs?

Why is policy viewed in the way your institution views it?

What are the advantages for your institution which you could link to this policy? Please think in terms of resources, capacity of the people, implementation of the program, and preparedness of future teachers.

What are the challenges for your institution which you could link to this policy? Please think in terms of resources, capacity of the people, implementation of the program, and preparedness of future teachers.

How has policy affected the effectiveness of the courses and the program as a whole?

How has the policy affected the practical experiences of future teachers?

How has the policy affected instructional strategies in the regular program?

How has the policy affected assessment and evaluation practices in the regular program?

If the policy has changed the language of instruction and language of assessment in the program, how it has affected activities and progress of the future teachers?

How do you think it has affected the overall implementation of the program?

How do you think this policy has affected the teacher education programs in your region and province as well as nationally?

Are there other views you would like to share in relation to effects of this policy?

REFERENCES

REFERENCES

Abdi, A. A., Puplampu, K. P., & Sefa Dei, G. J. (2006). *African education and globalization: Critical perspectives*. Lanham MD: Lexington Books.

AEPAM Islamabad (1995). *Pakistan education statistics 1994-95*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (1998). *Pakistan education statistics 1997-98*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (1999). *Pakistan education statistics 1998-99*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (1999). *Pakistan education statistics 1999-2000*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2002). *Pakistan education statistics 2000-2001*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2004). *Pakistan education statistics 2001-2002*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2004). *Pakistan education statistics 2002-2003*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2005). *Pakistan education statistics 2003-2004*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2006). *Pakistan education statistics 2004-2005*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2008). *Pakistan education statistics 2006-07*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2009). *Pakistan education statistics 2007-08*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2010). *Pakistan education statistics 2009-2010*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2010). *Pakistan education statistics 2010-11*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2011). *Pakistan education statistics 2010-11*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2011). *Pakistan education statistics 2010-11*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AEPAM Islamabad (2013). *Pakistan education statistics 2011-12*. AEPAM: Islamabad. Retrieved from www.AEPAM.edu.pk/

AERA (2006). Standards for reporting on empirical social sciences research in AERA publications. *Educational Researcher*, *35*(6), 33-40.

AERA (2009). Standards for reporting on humanities oriented research in AERA publications. *Educational Researcher*, *38*(6), 481-486.

Agresti, A., & Finlay, B. (2008). *Statistical methods for social sciences* (4th ed.). USA: Pearson Prentice Hall

Ahsan, M. (2003). An analytical review of Pakistan's educational policies and plans. *Research Papers in Education, 18*(3), 259-280.

Ahsan, M. (2005). Politicization of bilateral aid and educational development in Pakistan. *Educational Studies, 31*(3), 235-250.

AIOU Islamabad (April, 2014). *AIOU brief history*. Retrieved from: http://www.aiou.edu.pk/BriefHistory.asp

AIOU Islamabad (February, 2014). *AIOU educational programs*. Retrieved from: http://www.aiou.edu.pk/ProgrammesList.asp?P=BED

Akhter, N. (2011). Evaluation of educational television programs for distance education. *The Turkish Online Journal of Education Technology*, *10*(4), 188-194.

Ali, M. A. (2000). Supervision for teacher development: An alternative model for Pakistan. *International Journal of Educational Development*, 20, 177-188.

Ali, M., Mahmood, T. & Mahmood, Z. (2011). Role of assignment work in distance and non-formal mode of education. *International Journal on New Trend on Education and Their Implications*, *2*(1), 78-90.

Ali, S. (2009). *Governing education policy in a globalizing world - The sphere of authority of the Pakistani state*. Published dissertation, University of Edinburgh, Edinburgh.

Ali, S. (2012). Education policy borrowing in Pakistan: Public-private partnerships. In G. Donn & Y. A. Manthri (Eds.), *Education in the broader Middle East: Borrowing a baroque arsenal* (pp. 23-40). Oxford: Symposium Books.

Ali, S., & Farah, I. (2007). Schooling in Pakistan. In A. Gupta (Ed.), *Going to school in South Asia* (pp. 143-166). Westport, CT: Greenwood.

Ali, T. (2011). Understanding how practices of teacher education in Pakistan compare with the popular theories and theories and narrative of reform of teacher education in international context. *International Journal of Humanities and Social Sciences, 1*(8), 208-222.

Altbach, P. (2008). Globalization and forces of change in higher education. *International Higher Education, 50*(2).

Amirali, M. & Halai A (2010). Teachers‟ knowledge about the nature of mathematics: survey of secondary school teacher in Pakistan. *Bulletin of Educational Research*, *32*(2), 45-61

Andrabi, T., Das, J., & Khwaja, A., I., (2008). A dime a day: Possibilities and limits of private schooling in Pakistan. *Comparative Education Review*. *52*(3), 329-255.

APSCS Secretariat (2013). *Army Public School & Colleges System Secretariat*. Retrieved from: http://www.apsacssectt.edu.pk/

Ashraf, D., Khaki, J. A., Shamatov, D. A., Tajik, M. A, and Vazir, N. (2005). Reconceptualization of teacher education experiences from the context of multicultural developing country. *Journal of Transformation Education*, *3*(3), 271-288

Asian Development Bank (October, 2013). *Basic statistics*. Online resource retrieved from: http://www.adb.org/publications/basic-statistics-2013

Asian Development Bank (September, 2013). *Pakistan economy*. Online resource retrieved from: http://www.adb.org/countries/pakistan/economy

Bengali, K (1999). *History of educational policy making and planning in Pakistan*. Islamabad: Sustainable Policy Development Institute (SDPI).

Butt, M. H. & Shamas, F. (2007) Final report on quality assurance of teacher education programs. *UNESCO Pakistan reports*. Retrieved from: http://unesco.org.pk/education/teachereducation/files/es1.pdf

Buzdar, A. B. & Ali, A. (2013). Development of reflective thinking through distance teacher education programs at AIOU Pakistan. *The International Review of Research in Open and Distance Learning*, *14*(3), 41-56.

Carnoy, M. (2000) Globalization and educational reform. In Stromquist, Nelly. P. & Monkman, Karen. (Eds.). *Globalization and education: Integration and contestation across cultures*. Lanham: Rowman & Littlefield Publishers, Inc.

Carnoy, M. (2006). *Globalization and educational reform: what planners need to know*. Paris: United Nations Educational, Scientific and Cultural Organization.

Chang, F. (2006). *How to sustain the impact of a cluster based mentoring program on teachers practices* (Unpublished master's dissertation). Karachi, Pakistan: Aga Khan University.

Chang, F. H. (2013). *Teacher education policy and program implementation in Pakistan: A case study*. Unpublished doctoral practicum research report.

Chang, F. H. (February 4, 2014). *Globalizing teacher education in Pakistan: Its impact on program implementation*. Paper published in proceedings of International Conference on Education and Social Sciences. OCERINT.org: http://www.ocerint.org/cd/abstracts/a106.pdf

Cheng, Y. C. (2004). Fostering local knowledge and human development in globalization of education. *The International Journal of Educational Management*, *1*(18), 7-24.

Dale (1999). Specifying globalization effects on national policy: a focus on the mechanisms. *Journal of Education Policy*, *4*(1), 1-17.

Darling-Hammond, L. & Snowden, B. (2007). A good teacher in every classroom: preparing the highly qualified teachers our children deserve. *Educational Horizons*. *85*(2), 111-132.

Davies, L. & Iqbal, Z. (1997). Tensions in teacher training for school effectiveness: the case of Pakistan. School Effectiveness and School Improvement, *8*(2), 254-266.

Dean, B. L. (2009). Action research: In search of an effective teacher professional development strategy. In Q. Rashida and S. Fauzia (Ed.) *Schools and Schooling Practices in Pakistan: Lessons for policy and practice* (pp. 87-110). Karachi: Oxford University Press.

Education Development Center (2013). *National exchange on teacher education reforms and their implications.* Retrieved from: http://www.pakteachers.org/publications

Farooq, M. U., Asmari, A. A., & Javid, C. Z. (2012). A study of online English language teachers education programmes in distance education context in Pakistan. *English Language Teaching*, *5*(11), 91-104.

Halai, A. (1998). Mentor, mentee, and mathematics: A story of professional development. *Journal of Mathematics Teacher Education*. *1*(3), 295-315

Halai, A. (2006). Mentoring in-service teachers: Issues of role diversity. *Teaching and Teacher Education, 22*(6), 700-710

HEC (2002). *Government of Pakistan steering committee on higher education: summary for the President*. Islamabad: Government of Pakistan.

Heyneman, S. P. & Stern, J. M. (2013). Low cost private schools for poor: What public policy is appropriate. *International Journal of Educational Development* (Article in Press).

Higher Education Commission of Pakistan (December, 2013). *Facts and figures*. Online resources, retrieved from: http://www.hec.gov.pk/Pages/HECMain.aspx

Hoodbhoy, P. (1998). *Education and the State Fifty Years of Pakistan*. USA: Oxford University Press.

Hussain, R. & Ali, S. (1998). Improving public school teachers in Pakistan: challenges and opportunities. *Improving Schools*, *13*(1), 70-80.

Jaffrelot, C., Beaumont, G. (2004). *A history of Pakistan and its origins*. New York: Anthem Press.

Jumani, N. B., Rahman, F., Chisti, S. H. & Malik, S. (2011). Teacher training through distance mode in Allma Iqbal Open University (AIOU) Pakistan. A case study. *Turkish Online journal of Distance Education*, *12*(2), 1-14.

Khan, H. K. and Halai, A. (2009). Exploring reflective dialogue as a strategy for teacher development. In Q. Rashida and S. Fauzia (Ed.) *Schools and Schooling Practices in Pakistan: Lessons for policy and practice*. (pp. 68-86) Karachi: Oxford University Press.

Khan, M. B. (1997). *The professional development of teachers: A study of the field-based teacher development programs in Chitral, Pakistan*. Unpublished Doctoral Thesis, University of Toronto.

Kizilbash, H. H. (1998). Teaching teacher to teach. In H. Pervez (1998). *Education and the state – Fifty years of Pakistan* (pp. 102- 135). London: Oxford University Press.

Lahore American School (June, 2013). *Tuition and fees*. Retrieved from: http://www.las.edu.pk/tuition.htm

Majchrzak, A. (1984). *Methods for policy research*. London: Sage Publications.

Malik, M. R. (2007). *Improving decision-making systems for decentralized primary education delivery in Pakistan*. RAND Corporation, Santa Monica, CA.

Manzar-Abbas, S. S. & Lu, L. (2013). Collaboration problems during practicum in pre-service teacher education in Pakistan. *Social Sciences and Humanities*, *4*(3), 379-394.

Martin, C. (2011) Globalization and educational reform. In Stromquist, Nelly. P. and Monkman, Karen. (Eds*.). Globalization and education: Integration and contestation across cultures*. Rowman & Littlefield Publishers, Inc: Lanham

Mehrun-Nisa (2009). Using questioning as teaching learning strategy: opportunities and challenges. In Q. Rashida and S. Fauzia (Ed.) *Schools and Schooling Practices in Pakistan: Lessons for policy and practice*. (pp. 6-26), Karachi: Oxford University Press.

Memon, M. & Wheeler, A. E. (2000). *Improving education through educational leadership programs in Pakistan*. Draft of interactive discussion/conversation session in the 13th international congress for school effectiveness and improvement: global network for quality education, Hong Kong.

Ministry of Education Pakistan (1992). *National education policy of Pakistan 1992*. Ministry of Education Government of Pakistan, Islamabad.

Ministry of Education Pakistan (2009a). *National education policy of Pakistan 2009.* Retrieved from: http://www.moe.gov.pk/nepr/NEP_2009.PDF

Ministry of Education Pakistan (2009b). *National professional standards for teachers in Pakistan*. Retrieved from: http://www.teachereducation.net.pk/policy.html

Ministry of Education Pakistan. (1998). *National education policy: Iqra 1998-2010.* Islamabad: Government of Pakistan.

Ministry of Education Pakistan. (2002). *Education sector reforms: Action plan 2001 - 2004*. Islamabad: Government of Pakistan.

Mullis, I. V., Martin, M. O., Robittaile, D. F., and Foy, P. (2008). *TIMSS advanced 2008 international report: Findings from IEA's trends in international mathematics and science studies at the twelfth grade*. Lynch School of Education, Boston College: TIMSS & PIRLSS International Study Center.

NACTE, (April 10, 2014) *National Accreditation Council for Teacher Education: council members*. Retrieved from: http://www.nacte.org.pk/

Nayyar, A. H., & Salim, A. (2006). *A citizen's review of the national education policy*. Islamabad: Sustainable Development Policy Institute.

Nishimura, M. & Yamano, T. (2012). Emerging Private Education in Africa: Determinants of School Choice in Rural Kenya. *World Development*, *43*, 266 – 275.

Ogunleye, A. (2013). Quality assurance and quality indicators in open and distance education: context concerns and challenges. *International journal of Educational Research and Technology*, *4*(2), 49-62.

Okoli, N. J., (2012). Effects of globalization on education in Africa 1938-2008. *Academic Research International, 1*(2), 656-663.

Ott, R. L. & Longnecker, M. T. (2010). *An introduction to statistical methods and data analysis*. New York: Cengage Learning.

Pakistan Air Force. (June, 2013). *Schools/Colleges*. Retrieved from http://www.paf.gov.pk/school_colleges.html

Pang, N. S. (2006). Globalization and educational change. In N. S. Pang (Eds.) *Globalization: educational research, change and reform.* Kong: Hong Kong: The Chinese University of Hong.

Perraton, H. (2010). Teacher education: Role of open and distance education. *Common Wealth of Learning*. Vancouver, British Colombia: Common Wealth of Learning.

Pre-STEP/USAID (2009). *Summary of baseline survey report 2009*. Pre-STEP www.prestep.org/

Pre-STEP/USAID, (2010). *Rationalization of pre-service teacher education programs in Pakistan.* Retrieved from: www.prestep.org

Rariera, J. F. A. (2009). Exploring reflective dialogue as a strategy for teacher development (pp. 46-67). In Q. Rashida and S. Fauzia (Ed.) *Schools and Schooling Practices in Pakistan: Lessons for policy and practice*. Karachi: Oxford University Press.

Remler, D. K. & Van Ryzin, G.G. (2011). *Research methods in practice*. Los Angles: SAGE.

Rettalick, J. & Mithani, S. (2003). Impact of professional development program: A study from Pakistan. *Journal of In-service Education*, *29*(3) 405-422.

Rizvi, F., & Lingard, B. (2010). *Globalizing education policy*. London: Routledge

Schwille, J., Ingvarson, L., & Holdgreve-Resendez, R. (Eds.). (2013). *TEDS-M encyclopedia: A guide to teacher education context, structure, and quality assurance in 17 countries. Findings from the IEA Teacher Education and Development Study in Mathematics (TEDS-M)*. Amsterdam: IEA.

Seidman, I. (2006). *Interviewing as qualitative research: A guide for researchers in education and the social science*. New York and London: Teachers College Press.

Shah, D. (2003). *Country report on decentralization in the education system of Pakistan: Policies and strategies*. Islamabad, Pakistan: Academy of Educational Planning and Management

Siddiqui, S. (2010). *Rethinking education in Pakistan.* Karachi: Paramount Publishing Enterprise State Bank of Pakistan. (2013). Annual Report 2012-2013 (State of the Economy). Retrieved from http://www.sbp.org.pk/reports/annual/arFY13/Anul-index-eng-13.htm

Tahir, A. Q. (2011). Developing a student centered inquiry based teaching at elementary level science in Pakistan: A three years implementation cycle. *Asian Social Sciences*, *7*(8), 241-251.

Tatto, M.T., Schwille, J., Senk, S.L., Ingvarson, L., Rowley, G., Peck, R., Bankov, K., Rodriguez, M., & Reckase, M. (2012). *Policy, practice, and readiness to teach primary and secondary mathematics in 17 countries: Findings from the IEA Teacher Education and Development Study in Mathematics (TEDS-M)*. Amsterdam: IEA.

Tatto, M.T., Rodriguez, M., Reckase, M., Rowley, G., & Lu, Y. (2013). Scale development and reporting opportunities to learn, beliefs, and mathematics knowledge for learning. In Maria, T. T. (Ed.) *The teacher education and development study in mathematics (TEDS-M)*: *Policy, practice, and readiness to teach primary and secondary mathematics in 17 countries: Technical report*. Amsterdam: IEA.

UNDP (2013a). *Public expenditure on education (% of GDP)*. Online resource, retrieved from http://hdrstats.undp.org/en/indicators/38006.html

UNDP (2013b). *Pakistan country profile: Human development indicators*. Retrieved from http://hdrstats.undp.org/en/countries/profiles/PAK.html

UNESCO (2000). The Dakar framework for action. France: UNESCO.

UNESCO (2006). *Situation analysis of teacher education: Towards strategic framework for teacher education and professional development Pakistan*. UNESCO Pakistan. Retrieved from: http://unesco.org.pk/education/teachereducation/files/sa1.pdf

UNESCO (2010). *EFA global monitoring report 2010*. Retrieved form http://www.unesco.org/en/efareport/reports/2010-marginalization/

UNESCO. (2009). *Teacher education for quality education.* Retrieved December 23, 2009 from http://unesco.org.pk/education/step.html

UNESCO, (2014). Teaching and learning: Achieving quality for all. *EFA global monitoring report 201.* Paris, France: UNESCO.

UNESCO/USAID (2006). *Strategic framework for teacher education and professional development: Pakistan*. UNESCO Pakistan. Retrieved from: http://pdf.usaid.gov/pdf_docs/PNADI377.pdf

USAID. (2010). *The audit report.* Retrieved March 4, 2013 from http://oig.usaid.gov/sites/default/files/audit-reports/g-391-12-004-p.pdf

Warwick, D. P. & Riemers, F. (1995). Teacher training: value added or money wasted. In D. P. Warwick and F. Reimers (Ed.) *Hope or despair? Learning in Pakistan's primary schools*. London: Praeger Publishers.

Williams, G. (2007). Higher education and development. *International Institute for Educational Planning*, *XXV* (1). Retrieved from http://www.iiep.unesco.org/fileadmin/user_upload/pdf/jane07.pdf