

Educational assessment in Khyber Pakhtunkhwa Pakistan's North-West Frontier Province: Practices, Issues, and Challenges for Educating Culturally Linguistically Diverse and Exceptional Children

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Abstract

This article presents the case of Khyber Pakhtunkhwa (KP), Pakistan's former North-West Frontier Province, and its provincial educational assessment policies and practices. These policies and practices affect millions of Culturally Linguistically Diverse and Exceptional (CLDE) children who live in rural and remote areas, and areas afflicted by conflict and insurgency. The article raises questions about political interference, ethical conduct, and fairness in the administration and marking of the assessments. It discusses efforts for systematic administration and collection of learning assessment data, teacher professional development programs to improve assessment practices, policies which address the educational needs of the diverse students in the province, and challenges and barriers to province-wide sustainable education development. In conclusion, the author offers suggestions and recommendations for policy makers and education stakeholders towards capacity building and improvement of assessment practices for all learners while it attempts to shed light and dispel misconceptions about KP and its people.

Keywords

International education development; educational policy; educational assessment; language of instruction; culturally linguistically diverse and exceptional (CLDE) children; girls' education; Pakistan; Khyber Pakhtunkhwa

Introduction

The systematic measurement of student learning outcomes has come to the forefront of the field of education globally, in both developed and developing countries. While the main goal of classroom formative assessment is to inform instructional practices and help improve both student achievement in the areas of the curriculum and teacher adaptation of their instructional methods to meet students' needs,

summative, large scale assessment –when it takes place in addition to formative assessment– can give the bigger picture of how an education system works and what its strengths and pitfalls are. It creates the foundation and basis for systemic-wide improvements and educational

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reforms in the areas of education management, monitoring and evaluation, standards-based curriculum development, and teacher professional training.

Although the measurement of student learning outcomes is increasingly recognized as paramount to improving teaching and learning, it is not an easy task for any country or region. Most countries have difficulties implementing and utilizing successfully the results of large scale student learning assessments. However, for developing countries, and especially poor countries or regions afflicted by war, conflict, insurgency, political unrest, and natural disasters, the challenges can be enormous.

There are a lot of questions raised when it comes to student assessment and a lot of things to be considered. How are the assessments developed and implemented? Are they contextually, pedagogically, academically, culturally and linguistically appropriate for the very diverse student populations who take part in them? Are they valid and reliable? How are the results collected, analyzed, and interpreted? And are the assessment data used in appropriate and efficient ways to help improve the education system?

This article deals with the assessment policies and practices in Khyber Pakhtunkhwa (KP), Pakistan's former North-West Frontier Province. It first gives an overview of the history and status of the national education assessment policy and practice in Pakistan to provide background information and the country context within which KP is situated. It then discusses the educational system in KP, its challenges, limitations, and strengths, and presents and analyzes the current instruction and assessment policies and practices in the province.

KP, is a conflict afflicted region, with wide-spread poverty and illiteracy that has been hit

the past decade several times by terrible natural disasters and terror attacks, many of which targeted education institutions. It is hoped that, the information, data, and analysis presented here will be helpful to the reader who is interested in exploring this and other similar country/region cases as this province due to the geo-political barriers and security limitations is not easily accessible and therefore is quite under-researched with many unknowns, questions, and perhaps misconceptions.

Background: Education and Assessment in Pakistan

The year 2015 was marked by the Millennium Development Goals (MDGs) as the milestone for achieving universal primary completion for all boys and girls. However, today in the world, there are still more than 50 million out of school children and an additional 200 million in school who are not learning. Pakistan, the sixth most populous and the second with the largest Muslim population country in the world, is home to six million out of school children while millions of children who are enrolled in school are not receiving quality education. The majority of the out of school children are girls, live in poverty and in rural areas, and belong to cultural and linguistic minorities.

Pakistan offers a complexity of diversity that has evolved with its history (Coleman & Capstick, 2012). Located at the crossroads of Central Asia and the Middle East, Pakistan is considered to be one of the oldest civilizations in the world. As the centuries have unfolded, so have the Pakistanis, who represent an array of rich cultures and languages. In fact, according to Rahman (2003), six major languages and approximately 60 minority languages are spoken throughout its provinces (Punjab, Sindh, Khyber Pakhtunkhwa (KP), and Baluchistan) and

territories (Islamabad Capital Territory, Federally Administered Tribal Areas (FATA), Gilgit-Baltistan, and Azad-Jammu and Kashmir).

Like its people, education in Pakistan is multifaceted. The first attempt for formal education in Pakistan was brought forth by British colonization. Most education during this time was limited to those with the resources to attend school. It was not until after independence from Britain in 1947 that the National Education Conference convened to address and discuss the country's education challenges. At that time the country had an 85% illiteracy rate. By 2009 Pakistan's literacy rate had made considerable strides with 54.9% of adults and 70.7% of the youth considered to be literate (United Nations Educational, Scientific, and Cultural Organization, 2010). However, behind these literacy rates hide high illiteracy levels of women (for example, it is estimated that female illiteracy rate in FATA surpasses 95%) and those living in rural areas and provinces such as KP and Baluchistan, where access and opportunity to equitable learning is far less (Annual Status of Education Report, 2013).

Since 1947, numerous educational reforms have been introduced and implemented addressing topics such as literacy, rural and girls' education, civic engagement and recently, mother-tongue instruction. In the past decade, Pakistan has implemented the Devolution Plan 2000, which gave responsibility for administrative, political, fiscal, and social services to the provincial governments. The decentralization was completed by 2011 and as a result, the provincial governments now handle all responsibilities related to education. This includes teacher training, curriculum development, school operations, and educational

assessment. The devolution of the education system has played a great role in how education is organized in the country today. Despite the reforms and efforts undertaken, Pakistan is still behind and will unlikely meet the Millennium Development Goals' (MDG) targets (United Nations Development Programme, 2011).

Types of Schools in Pakistan

Formally, Pakistani children attend private or public schools, private schools supported with government and donor funds through public-private partnerships, or military schools. Additionally, children may attend *Deeni Madaris* [Madrassahs], which are religious Islamic schools. There are also non-formal education programs for youth or adults who have had little to no access to formal education as children.

Despite the availability of a variety of educational institutions, education for Pakistani children and youth continue to be a great challenge. Only 52% of the children stay enrolled in primary schools until fifth grade and of those not dropping out very few are actually learning (Annual Status of Education Report, 2012). Enrolment, repetition, and drop-out rates are very much influenced by cultural, societal, economic, and gender factors, distance to school, safety, quality of education (e.g., teachers' presence and qualifications, student-teacher ratios), and availability of resources (e.g., proper school sanitation and other facilities, boundary walls, textbooks and teacher guides) (United Nations Educational, Scientific, and Cultural Organization, 2010). Another contributing factor to access and quality of education is the language of instruction. In most cases, the language of instruction differs from the languages children speak at home. Urdu and English are the two main languages used for

instruction in schools across the country, followed by Pashto and Sindhi in some areas of KP and in Sindh. Though promising policies have been drafted for mother tongue instruction in some provinces, little has been implemented to assist those children who speak regional and minority languages (Gouleta, 2013).

National Efforts for Educational Assessment in Pakistan

In Pakistan, education assessment has been greatly influenced by the years of British colonization (Khattak, 2012) and has been designed to measure students' ability to advance further in the educational system. There are critical, high-stakes examinations at the matriculate and intermediate levels that widely impact and determine the career options of the students. Such assessments are conducted across the different provinces through the Boards of Examinations. The languages used in these assessments vary, though the most common languages used are Urdu, English, Pashto, and Sindhi. Most assessments are non-standardized and not significant measures of learning quality as they measure rote learning and selective study rather than analytical and critical thinking (Ministry of Education, 2007). Assessments for upper elementary grades (5-8) are still in the process of being developed at the provincial level and have yet to be implemented in some provinces. Because of the poor quality of the assessment system in Pakistan and to improve the measurement of student learning outcomes, the Education Sector Reform (2001-2005) -and later the National Education Policy of 2009- addressed the need to build assessment capacity at the school, provincial, and federal levels.

According to Greany and Kellaghan (2008, pp. 17-21), the main objectives of a

national assessment system are: a) to provide feedback to policy makers, politicians, and the broader educational community on particular outcome measures set as important; b) to report on the learning levels of students based on the general expectations of the curriculum in subjects such as science, math, technology, and life skills; c) to identify the areas of strengths and weaknesses in students' learning and the levels of performance of particular student subgroups; d) to compare the performance of students between and among education systems at national and global levels as it is believed that education quality is linked with the development of knowledge economies; e) to monitor student achievement over time and identify effects of policy decisions in relation to monetary and other resource allocations; f) to examine the contributing factors to student achievement within and outside of the school; g) to determine the adequacy of teacher professional development, services and resources based on government standards; h) to develop an accountability system for teachers, administrators, students, schools, institutions, and agencies that exercise control over education policies and decisions; and i) to follow international trends or meet international commitments (i.e. to report progress toward achieving the MDGs) or on other education donor requirements (in which case, as the authors argue, national assessment 'may not be seriously considered in the management of the educational system or in policy making' (p. 21)).

To provide evidence that the objectives of the national assessment are met, assessment data are collected from students and other education stakeholders. They are analyzed, interpreted, and reported on a regular basis (Kellaghan, Greany, and Murray, 2009). This practice provides the platform for the

educational system to develop effective policies, practices, and reforms for improvement. In Pakistan, to fulfill this purpose, the National Education Assessment System (NEAS) was established in 2002 with four branches in each of the four provinces, along with the Provincial Education Assessment Centres (PEAC) and the Kashmir Education Assessment Centre (KEAC) to help collect, monitor, and analyze information on student learning. With data that is comparable across regions and over time, NEAS intended to identify learning assessment gaps and bring about improvements in the curriculum, teaching and classroom support practices. However, as the devolution of the education sector went fully in effect in July of 2011, NEAS was fused with the Capital Administration and Development (CAD) and its leadership and dedication to assessment activities significantly weakened (The World Bank, 2009). Additionally, as the last quarter of 2013 approached, there were questions of whether or not CAD would continue to operate due to its administrative problems and confusion of responsibilities after devolution (Aftab, 2013). As a result, currently, the Secretary for Elementary and Secondary Education, in each province decides how learning outcomes will be measured.

The Case of Khyber Pakhtunkhwa (KP): Pakistan's Former North-West Frontier Province

The last population census in Pakistan was conducted in 1998 and it is very difficult to provide any accurate current population figures. In 1998, KP had an estimated population of about 17,740 million. Of these people approximately 3 million lived in urban centers

and about 14,740 million in rural areas (Government of Khyber Pakhtunkhwa, 2015). Today, it is believed that the province has over 24,700 million habitants in a geographical area which covers about 74,521 square kilometers (or 28,773 square miles) (United Nations Development Programme, 2011).

KP is divided into four geographical regions: the Southern Zone, the Central Zone, the North-Western Malakand Region (which is mostly mountainous extending where the Himalayan and Hindukush ranges meet), and the North-Eastern Hazara Region (which extends to the Himalayan and Karakorum ranges). The province has both densely (in the urban centers) and scarcely (in the mountains and country side) populated areas. Its main economic sources are forestry and agriculture.

Types of Schools, Student Enrolment and Attendance in KP

In KP the total number of schools is 37,988. Of these schools, 27,207 are public (see table 1) with a total enrollment of 3,763,796 pupils; and 4,219 of the public schools are operating either in rental buildings or tents. The private schools in the province are 6,101 with about 1,304,099 pupils and 4,680 are either *Deeni Madaris* or community run and operated schools enrolling approximately 200,185 pupils (Department of Elementary and Secondary Education, Government of KP, 2012, pp. 14 and 18). There are about 2,677 boys' schools that operate in mosques and currently, the Department of Elementary and Secondary Education is developing a strategy to gradually convert these mosque schools into regular schools (p.16) to help improve their facilities, resources, curriculum, and instructional practices.

School Level	Male	Female	Total
Primary	14770	7838	22608
Middle	1527	1013	2540
High	1229	530	1759
Higher Secondary	201	99	300
Total	17727	9480	27207

Table 1. *Public Schools by Level in KP*

Despite the aforementioned enrollment numbers, all schools are not accessible or functional to operate and receive students. External challenges such as militant extremists from Afghanistan and natural disasters including devastating floods and major earthquakes during the past decade posed heavy economic and socio-political burdens to this region as thousands of schools have been destroyed and millions of people have become displaced (United Nations High Commissioner for Refugees, 2013). Moreover, many girls' schools have been destroyed by militants and families have been threatened with death if they send their girls to school. As of 2012, it is estimated that the total number of schools that have been destroyed in KP by the militants (either partially or fully) is around 734 schools, with 640 of them only in the Swat Valley,

Malakand Region (Department of Elementary and Secondary Education, Government of KP, 2012, pg. 26). Most recently, the deadliest terrorist attack in Pakistan's history which claimed the lives of 145 people including 132 children took place at the military ran boy's school in December of 2014 in Peshawar, the capital city of KP.

In addition to the schools destroyed by militant extremists, the Department of Elementary and Secondary Education reports that approximately 3,856 schools have been damaged (either partially or fully) by natural disasters such as earthquakes and floods. And there are thousands of schools that are missing critical facilities (see table 2) such as electricity, water, bathrooms, boundary walls that enable girls to attend schools (p. 17).

Missing Facilities	Number of Schools
Boundary Wall	5,482
Water Supply	7,432
Electricity	10,518
Bathrooms	4,458

Table 2. *Missing Critical Facilities in KP Schools*

Consequently and despite the resilience of the people of KP, access to education in the province has been a great challenge and a struggle due to the above circumstances.

The 2012 Annual State of Education Report (ASER) gave a snapshot of the current state of education in KP and not all of its results appear grim. In KP, ASER (2012) surveyed 23 of the 25 districts and reported that 84% of children ages 6-16 were enrolled in either state or private schools, with more boys than girls enrolled in school. The highest net primary enrolment rate in the country resides in KP (81%) where 92% of all boys and 68% of all girls ages 5-9 are enrolled in primary school, though only about two-thirds of these students continue their schooling to fifth grade (Ministry of Education and Training, 2013).

However, although enrolment rates appear high, it is important to question the frequency of school attendance and whether the children enrolled are present every day in the classroom. Teacher and student absenteeism remains an enormous problem in Pakistan in general as on a daily basis it surpasses the rates of 13% and 18% respectively (ASER, 2012, p. 8). In KP in particular, these numbers are much higher with a teacher absenteeism rate –as anecdotal records suggest- being above 18% on a daily basis. Thus, even if we assume that all children are present in school not all teachers are there to teach them. This reality presents one more example why proxy measures in education do not always give us the whole and true picture of its quality and effectiveness.

Social, Cultural, and Linguistic Diversity in KP: Poverty Levels and School Expenditures

Amongst the great challenges, it is in this rural province where Pakistan glows with breathtaking landscapes, rich culture, and linguistic diversity. The people of KP are very diverse both culturally and linguistically and the main languages spoken in the province are Pashto, Seraiki, Khowar, Kohistani, and Hinko. Considering the lack of resources, the fragility and conflict the province experiences and the great diversity in landform and climatic variations, one can understand that it is quite challenging for the KP government to address the needs of its people in all areas of human and economic development including education without diversifying policies and practices.

KP has of the highest poverty rates in the country, especially in its rural areas. The MDG to eradicate extreme poverty has not only been unmet in this province but the numbers of people in poverty have proliferated. In 2005-06, the percentage of people who lived in poverty was 36%, seven percent above the national average. In 2009-10 the number of people living in poverty stood at 39% with about 25% of the population living below the calorie poverty line (Department of Elementary and Secondary Education, Government of KP, 2012, p. 4). Extreme poverty contributes significantly to the province's inability to meet the MDGs in education, even though the government of KP spends significantly more money per pupil 8,638Rs [or about 85 U.S. dollars] than any other province in the country, surpassing them by nearly 1600Rs per pupil [or about 16 U.S. dollars] (United Nations Development

Programme, 2011). In 2011-2012 fiscal year alone, KP spent approximately 21% of provincial expenditures on education pursuits with the plan to increase its budgetary allocation to education up to 30% in the subsequent years. However, the majority of those funds were spent on recurrent education costs (e.g., salaries) while only a low of 4.36% was spent on non-salary education costs (e.g., textbooks, furniture, training, uniforms) (Department of Elementary and Secondary Education, Government of KP, 2012):

‘The increasing annual burden for salary on the government exchequer over the years has seriously reduced non-salary provisions and eroded the overall quality of education, as it impairs the ability of the schooling system to maintain meaningful operational credibility in terms of lack of actual inputs required for effective teaching and learning within the classroom’ (p. 103).

Nonetheless, the province faces great challenges in education. Literacy rates are among the lowest in the country with a very high total drop-out rate during the first three years of schooling. From *Kachi* [kindergarten], to *Pakki* [1st grade], to 2nd grade the total drop-out rate rises up to 25% indicating that these children are eventually added to the pool of the illiterates in the province (Department of Elementary and Secondary Education, Government of KP, 2012, p.19). The overall literacy rates in KP have risen about 16% in the past 12 years making a very slow improvement of about 1.33% annually (Department of Elementary and Secondary Education, Government of KP, 2012, p. 15). And in 2009, it was estimated that the population average literacy rate in KP for those above 10

years old was 50%, about 7% less than the national average). For females in the same age group, the literacy rate was lower estimated at 31% compared to a 45% at the national level.

With such diversity and complexity, the role of education in KP and how education is implemented bring about more challenges than what may be faced in other provinces of the country. And it is in this light that we ought to see not only the challenges to literacy development and quality of education but also the educational assessment practices used so far and the efforts being made to improve the assessment system in the province.

Educational Assessment in KP: Policies and Practices

In KP, educational assessments have taken a different path from some of the other provinces, as about 40% of KP was not colonized by the British, leaving its education goals and assessment untested by western thought. It was not until 1998 that KP first implemented a student assessment system. After few years of implementation, student achievement appeared to fall drastically, mostly due to the restructuring of the education sector in response to the devolution. With the establishment of NEAS and PEAC, an original assessment geared toward KP diversity was implemented, though it is unclear how successful it was as results were not clearly reported and given that day-to-day assessment techniques and practices were not typically used in the classroom.

Due to KP’s weakened government, frequent conflict, linguistic diversity, and social and economic challenges, PEAC has collaborated with international aid agencies such as UNICEF,

the Canadian International Development Agency (CIDA), Literacy for All (LFA), other donors and development partners, and the provincial Education Sector Reforms Unit (ESRU) to find appropriate measures to assess and evaluate student learning outcomes. With such assistance, PEAC had conducted four cycles of National Achievement Testing in collaboration with NEAS but such implementation of the assessments faded away after the devolution. Furthermore, KP adopted the National Curriculum of 2006 but to date, only about 50% of the new textbooks have been developed leaving students and teachers with a curriculum largely unmatched with both textbooks and learning assessments (PEAC, n.d.).

Today in KP, schools and their teachers internally assess students in grades K-8 mostly through the use of results-based measures. At the classroom level, summative assessment tools exist, but are rarely used by teachers in primary and lower secondary grades, mostly due to their lack of knowledge on how to assess students at the classroom-level. In grades 9-12, summative assessments occur in assessment centers under the auspices of the Board of Intermediate and Secondary Education (BISE). These assessments are not diagnostic in nature and they have been used to either promote students to the next grade level or retain them. They have been used as a measure for teacher accountability but again it is not known what steps are taken or if there is a process in place when a school is failing or performing below expectations. Moreover, the math and English assessments are intended to measure the impact of the assessment training that has been provided for the teachers, and are not used to measure student learning

competencies. However, the math and English assessments can advance or graduate the students to the next grade level. Currently, there are plans to expand this type of assessment to fifth and eighth grade.

The existing assessment practices create questions of fairness in the administration and evaluation of the exams in regard to ethnical conduct. Anecdotal evidence raises issues about students' cheating during the exams, political interference from local influential individuals on creating false and higher results, and accounts of corruption and even bribery especially when it comes to the Board of Examinations at the matriculate level. In addition, lack of resources and appropriate test-taking conditions (see figure 1) make examinations a real challenge for both teachers and students. In addition, little has been done to create assessments that inform instruction and prepare teachers to create and administer such type of assessments. The relationship between assessment data and student outcomes needs to be considered; assessment data should not only inform student outcomes, but also inform curricula and improve pedagogical practices.



Figure 1. Administration of Examinations in Boys' Middle School.

Because educational assessment in KP has been a 'stand-alone activity' (Kellaghan et.al., 2009, pg. 21), 'separate from and with little connection to other educational activity' the findings of the assessments are underused. Other reasons that have been suggested for underusing assessment data (Kellaghan et. al., 2009) and would apply in the case of KP are:

'inadequate involvement of stakeholders in the design and implementation of an assessment; failure to communicate findings to all in a position to act; lack of confidence in the findings of a national assessment; political sensitivity to making findings public; failure to devise appropriate action following and assessment at the level of general policies; [and] failure to devise appropriate action following a national assessment at the school level' (pg. 22).

Kellaghan et. al. (2009) assert that the above reasons for underusing assessment data is usually found when assessment is carried out by external agents or at the request of donors (pg. 23) which is very much the case in KP since donor funds given to the education sector are conditional to developing and implementing a reliable educational assessment system.

Examining the ASER reports between 2010 and 2012, it is difficult to interpret the

results of the assessment and determine accurately the student learning outcomes in KP. For instance, the districts surveyed in 2010 were only four; but increased in 2011 to 14 districts, and in 2012 to 23. Although it is positive that more districts are added every year in the assessment data collection system, it makes it challenging to determine progress as well as how learning assessments are valued and interpreted with regard to student outcomes. Data collected in KP by ASER does not reveal what specifically has effected changes (positive or negative) in student outcomes and how or if assessment measures have played a role in such changes. One major concern that arises is determining any other factors that inform student learning outcomes, such as in reading.

For example, looking at the 2012 ASER report it is not evident what the variables which played a role in the increase of reading ability from 2011 to 2012 are. Table 3 provides a glimpse of reading literacy across three years of ASER data (2010-2012). Data collected in 2010 show reading literacy rates among a small sample of districts, based upon two reading indicators. However, when more districts were surveyed, as in 2011 and 2012, the reading indicator rates actually decreased comparing to the 2010 results.

Year	% of grade 5 students who could read a grade 2 level story in Urdu or Pashto	% of grade 3 students who were able to read a sentence
2012 ASER Report	43%	45%
2011 ASER Report	32%	31%
2010 ASER Report	67%	62%

Table 3. ASER Survey Results on Student Reading Outcomes in KP (2010-2012)

While it is crucial to examine various components to increase access of education for all and to improve the quality of teaching and learning in KP classrooms, reforming the student learning outcomes assessment system is *key* to delivering quality education in the province. In monitoring quality in education, it is imperative to use the assessment results effectively and to look beyond proxy measures that most international entities use (e.g., public educational expenditure per pupil; completion and drop-out rates; and number of qualified teachers). Even when countries or regions do well on proxy measures, there is evidence that weak and unequal learning outcomes are widespread; for this reason, the global demand from education stakeholders to measure student learning outcomes is steadily increasing as it presents evidence on quality of teaching and learning (Walvoord, 2004). Kellaghan et. al. (2009) recommend a series of actions that can help avoid the underuse of assessment results and improve the overall quality of the assessment system:

‘integrate the assessment activity into existing structures, policy, and decision-making processes; involve all relevant stakeholders in design and implementation of an assessment; make provision in the budget for the dissemination, plan activities, and prepare a number of reports tailored to user needs; ensure that the assessment team has the required technical competence and that relevant stakeholders are involved from the outset; increase the likelihood of making findings public by holding regular stakeholder discussions; integrate national

assessment activity into policy and managerial activities, and review findings to determine implications and strategies; [finally] ensure adequate communication of findings to schools, review findings and devise strategies to improve student achievement, and provide ongoing support for implementation’ (pg. 22).

Improving Educational Assessment in KP: Efforts and Initiatives

KP has recognized its educational challenges and has been at the forefront of educational change in Pakistan. As such, KP is the first province in Pakistan to develop an Education Sector Plan (ESP) (2012) which serves as a workable action plan for education based on a broader Comprehensive Development Strategy (CDS). One of the main goals of the ESP was to achieve universal primary education for all boys and girls in the province by the year 2015 and although this goal will not have been actualized by the end of the year, the efforts continue. Other main goals are to (Department of Elementary and Secondary Education, Government of KP, 2012):

promote gender equality; achieve quality basic education for all; achieve 50% improvement in the levels of adult literacy, especially for women; introduce government-financed private school subsidizing for areas with low female enrolment; and reduce rural and urban disparities in education (p.i).

Among other objectives, the ESP addresses the need for family involvement in children’s education by supporting the Parent-Teacher-Councils (PTC) in the province. It also

supports non-formal and community education; adult literacy centers; and teacher professional development for public, private, pre-service and in-service teachers. Further, the ESP provides to female teachers assistance with transportation to girls' schools in remote and rural areas; and has led efforts in banning of the corporal punishment in schools. It promotes the inclusion of regional languages in the curriculum. In addition, the ESP emphasizes the importance of strengthening the Education Management Information System (EMIS) to reliably collect, manage, analyze, interpret, and report education data in order to insure transparency, accountability, and efficient use of resources. It is important to note, however, that although the above objectives have been identified as priorities in the ESP, to date, very little has been done to meet some of them such as the support to PTC's for example.

And although educational assessment is being addressed in the ESP, it is not specified how children will be assessed at different stages and grades and how assessment will be used to inform instruction. The ESP describes the assessment system in KP as *results-based* and differentiates between two types of assessment: *internal* and *external*. Internal assessment refers to examinations given from first to eighth grade by a special board within the Directorate of Curriculum and Teacher Education (DCTE). As an indicator for measuring quality of learning in internal assessments has been the promotion rate from one class to the next. From ninth grade and above students take a formal external assessment that is designed by BISE. This assessment is also results-based looking at the percentage of students passing the exam

(success rate 54% in March of 2011) (Department of Elementary and Secondary Education, Government of KP, 2012, p. 49).

Teachers' performance is assessed based on annual school assessment outcomes, a system that 'affects the quality of education negatively' (Department of Elementary and Secondary Education, Government of KP, 2012, p. 48). It has been reported that since the 1980s, teachers have been encouraging students to cheat in their exams and that the teachers also served as the examiners. As a result the government had to intervene trying to assess the quality of education. It is understood as described in the ESP that assessing students in the end of the year for grade promotion or graduation purposes is not optimal as this type of assessment does not inform instruction.

The ESP called for the development of a 'Third Party' led assessment for fifth and eighth grades to be developed in phases (p.49). To this date action has been taken on this front. PEAC developed a fifth grade assessment in four subjects: English, Urdu, mathematics, and science. The exam was conducted by an external organization the National Examination and Evaluation Foundation (NEEF) in the last week of March, 2015. The report of the results is still pending.

Recent actions in KP have been addressing implementation of day-to-day assessment through teacher training to help build the teachers' understanding about assessment development and implementation through a year-round classroom assessment. In 2009, the government of KP incepted a new project under PEAC the *Multilevel Integrated Teacher Supervision and In-Service Training System*. The project developed teacher and student materials for Continuous Classroom Assessment

(CCA) in the primary grades. It is comparable with up-to-date best instructional practices and has the advantage that gathers data over a long period of time including intervening early to inform instruction and secure that all children learn (PEAC, n.d). The CCA was piloted in six districts (Abbottabad, Mansehera, Haripur, Noshera, Swabi, and Mardan) in grades K-2 and in four subjects: Urdu, English, mathematics, and science. The project engaged over 5,700 mentor teachers for three days a month on classroom assessment practices. Through the monthly activities with the teachers, the CCA pilot project two common challenges were found in assessment practices in KP. These are: 1) teachers' weak skills in test construction and administration; and 2) teachers' negative attitudes toward continuous assessment and record keeping approaches. The recommended action has been that attention must be paid on improving KP's learning assessment system at the school, district, and provincial levels.

PEAC to date has developed assessments for CCA for grades one through fifth based on learning standards in four subject areas: English, Urdu, mathematics and science and the instruments are now available for classroom use. If implemented properly and systematically, such reform has the ability to increase accountability, transparency and accuracy in reporting the quality of teaching and learning and failing schools can start considering the development of School Improvement Plans (SIPs) to aid in the overall assessment of student achievement (Department of Elementary and Secondary Education, Government of KP, 2012). It will also allow cross-province comparisons as provinces have been following the same national curriculum. Recently, with donor support and following the model from Punjab province, PEAC developed a third grade literacy and numeracy assessment using second grade learning standards in the subjects of English, Urdu, and mathematics. The assessment was

piloted in April of 2015 and the report with the results is still pending.

Programs, Initiatives and their Implications for the Education and Assessment of KP's Culturally, Linguistically Diverse and Exceptional (CLDE) Children

The ASER (2012) survey revealed that 20 different languages are used in the households in KP, whereas English, Urdu or Pashto are the languages of instruction in schools. Thus the languages found in the home and the languages used in schools are not always matched, factor which can greatly influence one's learning. In addition, there are large gender gaps in learning outcomes, with boys outperforming girls across all grades in both reading and math skills. And of the most disadvantaged student groups in getting access to quality education in Pakistan are the children who fall in the intersection between gender and marginalization: being a girl, living in poverty, living in an urban-minority or rural area, having a disability, and belonging to a linguistic, religious, or cultural minority (see figure 2) (Gouleta, 2014).



Figure 2. *Out of School Girl in Religious Minority Area*

The education of exceptional children and youth, children with disabilities, and special abilities is not addressed in length in the ESP and there are no statistics about the numbers of children in the province with disabilities, the types of prevalent disabilities, and the ways that children with disabilities have access to education –if any. Some brief mention in the ESP about children with exceptionalities can be found in the section that describes the causes of illiteracy in the province under the paragraph titled ‘*Physical Disability*’ (Dept. of E&SE Education, Government of KP, 2012):

‘Though authentic data of such dropout does not exist yet instances are not uncommon that physical disability such as malnutrition and weak eyesight are some of the causes of dropout. Parents and teachers instead of realizing such physical disability resort to corporal punishment. Fortunately now there is growing awareness among the parents. Teachers are also sensitized during the training’ (p.70).

Moreover, the ESP makes no mention about specific ways to include children with disabilities in the classroom and it does not address any of the issues that concern the education assessment practices that are necessary when assessing children with exceptionalities (e.g. providing accommodations and modifications to accurately evaluate their learning). Similarly, there is no elaboration on ways of modifying the curriculum, instruction, and assessment to meet the needs of cultural and religious minority

children and of those who live in remote and rural areas and have limited access to school due to distance and other safety factors. According to KP’s Education Sector Plan (2012):

[the] 18th amendment has provided an opportunity to embrace far greater diversity in what the provinces can do than ever before ...[including the]...liberty to embrace diversity, by reviewing and renewing both the curriculum and the medium of instruction to make them more relevant and support (rather than hinder) the encouragement of learning...[therefore]...regional languages are being introduced (p. 48).

A first positive step, in meeting the needs of CLDE students had started with heightened sensitivity to linguistic minority children and the implications of using their mother tongue as language of instruction in schools. In 2011, the government of KP passed the Mother Tongue Education Bill which called for introduction of mother tongue instruction in the schools. With the support of development partners, local communities, religious leaders, linguists and language experts, poets, writers, educators and other stakeholders, the government had begun an effort to standardize the alphabets of the province’s minority languages and pave the road for the Bill’s implementation (Gouleta, 2013). The issue of assessment with regard to the mother tongue of the students and the implications that this has to accurately measuring student learning had not been specifically discussed.

Despite the very positive movement towards the promotion of mother tongue instruction in 2011, the province has recently developed a language policy –following Punjab’s English Language Initiative (ELI) - to use English as the medium of instruction. Although such political decisions can be popular among education stakeholders including parents, the implications for the education CLDE children can be disastrous as this is a language that the vast majority of the students and teachers do not speak or understand adequately if any at all.

With regard to girls’ education, the government of KP with the support of donors and development partners has initiated several programs and pilot projects to help improve their education opportunities as well as the provision of quality education for rural, poor, and marginalized children. Initiatives include the Elementary Education Foundation (EEF), a private public partnership established in 2002 to increase enrollment in basic education and the Frontier Education Foundation (FEF) established in 1992 to support education initiatives and infrastructure. EEF has established about 200 schools, three model schools, and 67,850 learning centers which help reach those in rural and minority areas and give a second chance to education to those who are not of school age any more.

Other initiatives include the *Rokhana Pakhtunkhwa Taleemi Programme* (2011-12) which focused on the provision of quality education in rural areas by strengthening the private sector, providing financial assistance to parents to send their children to school, creating more jobs for people in those areas, and enhancing community participation (Department of Elementary and Secondary Education, Government of KP, 2012, p. 22). Along similar lines, the *Stoori Da Pakhtunkhwa Programme* supports secondary talented

students who come from marginalized segments of the society to study in the disciplines of science and the arts with monthly scholarships (p.22).

In addition to government initiatives, donors, development partners, Non-Governmental Organizations (NGOs) and Civil Society Organizations (CSOs) have developed pilot literacy programs across the province that can inform future initiatives from lessons learned. One example is *the Literacy Boost* (LB) project (2009-2010) developed by Save the Children in KPs’ Battagram District, Allai, Tehsil. The project focused on reading interventions, assessment, and working with teachers and the communities to improve children’s literacy skills. With respect to assessment, it was centered around using assessments to evaluate the five core reading skills (i.e. phonemic awareness, phonics and spelling, comprehension, fluency, and vocabulary) in both Pashto (the home language of the children) and Urdu (the language of instruction). The project involved 10 experimental school sites and 5 comparison schools. Results revealed that although the 10 LB schools started significantly lower compared to the control sites (five schools), they outperformed them in all reading skills and the numbers on the non-readers significantly dropped (67% versus 36% their comparison peers). In addition, the project was proven especially beneficial for girls increasing significantly both their reading skills and learning outcomes. Teachers reported learning a lot of instructional and assessment strategies on how to support children’s literacy skills, and parents reported great satisfaction with the program and that they were now able to participate and get involved in their children’s learning. (Save the Children, 2011). This early literacy project is a good example of how

systematic and focused instruction and assessment practices that inform instruction along with teacher professional development and parental involvement can help improve young children's biliteracy skills.

Discussion and Recommendations

In support of the province's efforts to better design, administer, and evaluate educational assessments certain elements need to be in place or become stronger. One essential element is the provision of extensive quality teacher professional development on instructional and assessment methodologies for all students including CLDE children and children with special circumstances such as living in poverty or in rural and remote areas. In designing, administering and evaluating learning assessments in KP's primary and secondary classrooms, teachers, head teachers, and school administrators must be knowledgeable and skillful to apply current research-based practices and be fluent in developing and carrying out both formative and summative assessments.

Technical assistance provided by donors and development partners can specifically aid in teacher professional development through the creation of sound teacher training programs on continuous assessment practices; dissemination of teacher guides for assessment in every school; and expansion of the teacher-mentoring program in all districts of the province by involving the head-teachers in the process of on-going assessment. At the local level, technical assistance can enable parents and community members to be active participants in the process of assessment. Collaboration among the Regional Institutes for Teacher Education (RITEs) can contribute to the professional development of pre- and in-service teachers and bring teachers' unions on board as important

players for policy development and implementation.

Another area of importance is the alignment between the curriculum, textbooks, and actual lessons taking place in the classroom with the assessments. So far, although the national curriculum of 2006 has been adopted by the province, only 50% of the textbooks are actually aligned and the availability of teacher curriculum guides is very limited. Moreover, curricula that are taught in private schools and the Deeni Madaris may not follow the national curriculum. Thus, there is no uniformity in the content the students are exposed to across the province. Considering the variation in the curricula, creating uniform or standardized assessments will not work well because the field will not be leveled for all students. Starting assessment cycles in smaller scales -for example at the tehsil or district level- while simultaneously training the teachers and trying to bring the textbook-curriculum alignment up to speed may be a better approach to begin assessing student learning outcomes.

Using oral assessments that examine the five main components of reading for young children preferably in their mother tongue and the language of instruction -similarly to the Literacy Boost pilot project mentioned above- may be beneficial to inform instruction and determine the literacy levels of children early on to allow time and room for improvement. The ESP of the province calls for teacher student ratio reduction and if implemented, it will be extremely beneficial especially in the early grades where young children are learning to read and write and obtain their first numeracy skills. In these grades oral assessment is recommended and by maintaining a low number of students in class, teachers can better teach and evaluate their young learners.

Young children's literacy skills must be assessed and these measures should be

developmentally, culturally, linguistically, and contextually appropriate for the diverse districts in KP. A rendition of the Early Grade Assessment (EGRA) (Research Triangle Institute, 2015) which was piloted in the Literacy Boost intervention gave insight to expectations for the later schooling years and provided a model of an assessment that can be accessible to the entire province (Save the Children, 2011). An early numeracy assessment –Early Grade Math Assessment (EGMA) type- can be used to assess young children’s math skills and inform instruction for improvement (United States Agency for International Development, 2009). PEAC with the support of donors and development partners has already started piloting an early grade assessment recently at the end of third grade measuring second grade student learning outcomes. Given however the great diversity of the student body in KP, it is imperative that the assessment takes in consideration the various student subgroups and incorporates accommodations and adaptations when implemented accordingly.

Efforts that help create a system of accountability in which districts, schools and teachers are held accountable for students’ achievement from the early years of formal education are necessary. Such accountability could be supported with rewards for achievement and disciplinary processes to aid failing schools and/or districts. If assessment is implemented with particular relevance to KP, students who perform well on early grade reading and math measures will be less likely to drop out or fail school. In order, however, to effectively implement early grade literacy assessment in KP, it would be important to pilot the instrument chosen in an array of KP districts to ensure its validity and reliability given the culturally and linguistically diverse population of the province.

Along the same lines, it is imperative that the new English language policy which calls for using English as the medium of instruction in KP’s schools is seriously reconsidered and modified. Children –and especially underprivileged children- whose mother tongue is different from the language of instruction fall behind in both the content areas and in English and they are more likely to drop out of school. Young children must be instructed in a language they speak and understand in order to develop cognitively and achieve academically. And teachers need to teach in a language they speak and understand in order to teach effectively. One important recommendation for donors and development partners is to provide technical assistance to the provincial government and develop a communication strategy to inform policy makers, parents, the public, and the education stakeholder community in general about the detrimental effects of such policies on children’s learning.

Assessment in KP must be continuous and inform instruction. As the ESP supports, assessment should not be used only for proxy measures such as promotion or retention purposes. Such measures have shown to be more costly than employing additional resources to help students perform on grade level (Patrinis and Velez, 2009). Funneling some of these resources into proper assessment measures and training for educators may be proven useful for KP’s education sector as a whole. Although important and beneficial, on-going classroom assessment at the higher grades is very difficult to implement under current conditions especially in classrooms with high student-teacher ratios and in multi-level classes. Anecdotal evidence reveals that there are schools in KP (and in particular girls’ schools) with enormous numbers of students and only few teachers to teach. In addition, about 45% of the government schools have teachers who are

responsible for multi-level classes (Annual Status of Education Report, 2012).

Considering the high teacher-student ratio in many KP schools and the multi-level classrooms, new innovative assessment strategies must be piloted to provide additional support in addition to teacher professional development. Strategies to be considered may include: 1) training parents and members of the community as teaching assistants; 2) using co-teaching effectively during the times of orally administered early grade assessment (one teacher can teach the class while a co-teacher can pull out of the classroom children for testing); and 3) implementing school-to-school support (partnering two neighboring schools and their teachers together to support each other during testing time). By reaching out to the community, parents, and education stakeholders for support allows educational assessment efforts to be holistic and inclusive, rather than operating in a silo.

It is also vital to develop a comprehensive standardized, criterion referenced, learning achievement test in subjects such as language (Urdu, Pashtu, or other depending on the language of instruction), mathematics, science, and social studies for primary and secondary students. And PEAC has recently developed such instruments for grades one through five—excluding measuring social studies achievement. This set of standardized assessments based on the curriculum –if used effectively–can produce results that can again, inform instruction and allow for district, school, and teacher accountability with regard to student achievement. In creating a sound assessment system, it is recommended to also examine international large-scale exams such as the Program for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMMS), and Progress in International Reading Literacy Study

(PIRLS) as examples of how a standardized assessment encompasses a diverse population (National Center for Education Statistics, 2012). Additionally, these assessments provide an international context of what is being studied and tested across the globe at different stages of schooling and will help highlight specific skill sets per grade level.

Another assessment type example that can be examined in developing instruments for KP students is the new international assessment initiative co-sponsored by UNESCO's Institute of Statistics and the Brookings Institute, called the Learning Metrics Task Force (LMTF). LMTF intends to examine student learning in many countries including developing and emerging countries as opposed to PIRLS, TIMMS, and PISA which are tailored and priced for developed countries. Thus the main focus of this initiative 'is to catalyze a shift in the global conversation on education from a focus on access to access *plus* learning' and to inform a global perspective on assessing learning outcomes (Learning Metrics Task Force, 2013). The aim is to measure data that bring in all voices from an array of countries to help us better understand what type of learning is important at the global level, and how these data can help inform us, as a world-community, in better providing education for all.

Using assessment data to inform instruction and system wide evaluation is critical. KP needs to develop an independent system for data collection, analysis, interpretation, reporting, monitoring, and evaluation of educational assessments. The current monitoring and evaluation system named *Independent Monitoring Unit* operates under the auspices of the provincial ministry of education and therefore it is not as independent as a third party system would be. While such a system is being developed, data must continue to be collected from all schools in the province.

Moreover, a new assessment data collection system must be based on sound practices. A good example of such structure is the SABER Data Quality Assessment Framework (DQAF) for education statistics to which assessment data must have (The World Bank, 2014):

- i. *Prerequisites for quality*: Statistical systems should be based on adherence to the principle of objectivity in the collection, processing and dissemination; and
- ii. *Other aspects of data quality*: integrity, methodological soundness, accuracy and reliability, serviceability, and accessibility.

Without a truly independent and reliable assessment system based on a quality framework, learning, monitoring, and evaluation practices cannot be carried out with accuracy and efficiency, which may lead the education system in KP not having a true chance for a fair and accurate evaluation and the opportunity to further improve. Consequently, children in KP will not have a chance to participate in a fair and effective assessment processes and teachers and education stakeholders will not be held accountable in a fair and just manner.

In order to maintain efficient and reliable assessments for all children of KP, the government of the province and its education stakeholders must consider an approach that embraces the communities and yields results that hold teachers, schools, and district education officers accountable for student achievement while considering the backgrounds of the students and incentivizing the teachers to improve the quality of teaching and learning. Underutilization of assessment centers, politically appointed individuals in the training institutes, and little to no feedback with the assessments often create major barriers and obstacles in measuring learning in KP's classrooms. This is especially crucial in rural

areas where the majority of families whose children attend public schools have very limited power in the decision making process of implementing any type of assessment and typically have less developed assessment systems than urban centers in the province.

Conclusion

There is no doubt that KP faces more challenges and hardships on a daily basis than most of its provincial counterparts. Dealing with poverty, fragility, and constant conflict has played a factor on hindering effective implementation of any education component. Additionally, given the socio-economic, urban versus rural, the linguistic and cultural diversity in the province, the children of KP are not offered a fair opportunity for quality instruction and assessment in which their learning can be measured. It is imperative that (Gouleta, 2013):

‘the education of culturally and linguistically diverse children must be considered from a holistic point of view, actively involving parents, families and communities, all in the context of Pakistan’s sociocultural, ethnic, economic, and political complexity as well as the security situation in the country’ (p. 3).

It is easier to create an assessment plan but much more difficult to implement it and ensure that all stakeholders understand its processes. Creating an assessment plan that involves consultation with education stakeholders, using assessments that are valid, reliable, and mother- language friendly that take in consideration student disabilities and special abilities is critical. By employing strong technical assistance and coordinating with donors, teachers’ unions, PTCs, communities and the government to strengthen and expand collaborative systems (e.g. PEAC, BISE) in all KP districts, the assessment system can become more de-centralized and better meet the diverse needs of learners in KP.

When it comes to a complex issue such as the improvement of educational assessment in a province with so many challenges, like KP, understanding the whole helps to understand its parts. Recognizing existing governmental structures can provide insights on how power and resources in the educational sector are distributed. Such knowledge may reveal special interests, incentives and institutions that have the power to enable and/or hinder change in education.

Lessons from the case of KP can be useful for other countries with similar needs, challenges, and strengths, which try to develop sound assessment systems. In particular, federal countries with national oversight and provincial executive power on education can benefit from KP's example and efforts to assess student learning outcomes effectively.

There is no doubt that despite the obstacles, KP will continue improving its educational system because there are both will and commitment by its government, its education stakeholders and development partners and most importantly by its resilient, enduring, and determined people. The hope of this author is that the province will carefully consider developing a sound educational assessment plan tailored to the needs of its diverse students and that it will continue making progress in its assessment data management and monitoring system to improve the quality of its education system.

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