

PAKISTAN'S PRIMARY EDUCATIONAL REFORMS AND CHALLENGES

Tariq Mehmood Bhuttah^{1*}, Hakim Ullah¹, Saima Javed¹, Chen Xiaoduan¹

¹ School of Education, Shaanxi Normal University, No. 199, South Chang'an Road, Xi'an, 710062, CHINA.

ARTICLE INFO

Article history:

Received 30 July 2019
Received in revised form 26
November 2019
Accepted 06 December 2019
Available online 26 December
2019

Keywords:

Education status;
Educational aid;
Reform challenges;
Basic education;
Education Reforms;
Poor education;
Teacher training;
Educational failure.

ABSTRACT

The educational system of Pakistan has been suffering long-term problems in the form of access, quality, and equal opportunity on the primary level. The unregulated, underfunded education system of Pakistan needs a complete overhaul. The purpose of this exploratory review based study is to discuss the existing failures, obstacles, and challenges of Pakistan's educational system on the primary level and propose suggestions to reform it based on the current educational statistical and policies post-independence. Further, it also tried to determine the role and hurdle between foreign aid and a functional primary education system of Pakistan. This study concluded with the significant issues and challenges such as a shortage in terms of facilities and services to accommodate the growing need on the primary education level. Lower participation rates of children are mainly because of the ever-increasing poverty. Further, distance from Schools and parents' ignorance and security issues are leading towards high opportunity cost of education, child labor. There is a strong need to focus on primary education with well-defined goals by Sustainable Development Goals (SDG). These goals can be achieved by addressing all the aspects of primary education simultaneously, such as governance, financing, access, equality, teachers training, curriculum, ICT, and facilities with clean water, electricity, sanitation, etc.

Disciplinary: Education Sciences (Primary Education).

©2020 INT TRANS J ENG MANAG SCI TECH.

1. INTRODUCTION

U.S. policies in neighboring Afghanistan have driven Al Qaeda and the Taliban into Pakistan's tribal areas. The government of Pakistan turned a blind eye on the reconsolidation and recruitment of the Taliban in the Federally Administered Tribal Area (FATA). A collection of documents declassified and released in 2007 clearly illustrates that the government of Pakistan directly funded armed and advised the Taliban. Now Islamabad has acknowledged the domestic complications created by the Taliban movement in Pakistan and is struggling to disengage with the Taliban and combat the advances in Pakistan. Pakistan's Prime Minister, Yousaf Raza Gilani, said the army in

the Swat Valley was fighting for "the survival of the country."

Outside the Swat Valley, Taliban extremists have targeted institutions, religious leaders, police forces and civilians alike, threatening the daily existence of the average Pakistani. Pakistan's struggle for survival is at a point where extremists are moving into regions in search of recruits. They've moved into communities by embedding different versions of Islam, resulting in these communities accepting them rather than opposing them. Beyond the spread of extreme Islamist ideals, a potential threat from within Pakistan stems from its vulnerable nuclear weapons arsenal. Although a majority of Pakistanis consider themselves Muslims, they follow a moderate translation, not Islam being promoted by the minority extremists.

Without intervention, the weak, or more specifically, the uneducated, are becoming nothing more than fodder for manipulative individuals involved in terror organizations and pose a threat to the security of society. Ignorant, desperate youth have become an easy target for terror organizations that offer them money and training, particularly when they have no means to provide for themselves or contribute to the needs of their families. Illiteracy deprives people of knowledge and power and reduces people's ability to understand how political and social issues genuinely affect their lives. The vulnerability, therefore, extends from the uneducated individual to society as a whole, making rural Pakistan an area of particular concern for U.S. security.

Terrorist attacks have become a daily staple in global news headlines. Terrorists are continuously inflicting pain and suffering on the lives of innocent people all over the world indiscriminately. Countering this trend is in the security interest of all nations. Inadequate opportunities in the education system of Pakistan have been originating the extremist ideologies, which bring terrorism and sectarian tensions in the country but also hindering economic growth. According to the 9/11 Commission Report, "Pakistan's endemic poverty, widespread corruption, the ineffective government has been creating opportunities for extremists.

Poor education in rural Pakistan is a particular matter of concern. Terrorism is patenting, specifically in the rural regions of the state. The current education situation of Pakistan is seen as one of the most significant barriers that are hindering this country from accomplishing its goals at full potential. Higher education level significantly yields productivity and, thus, higher development (SPDC, 2003). Inclusive and equitable quality education spurs not only the labor force but also the governance, and then the mechanisms of all the institutions and thus the whole investment climate. The universal access to primary education also helps the entire society to get benefit from macroeconomic growth (Stern, 2001).

Better education creates income opportunities, alleviates poverty, and raises the productivity of society through increasing potential entrepreneurial opportunities. It also trains citizens with necessary functional life skills and prepares them for taking responsibility and contributing to the community. In short, education is unquestionably center for the development of a nation; (World Bank) Moreover; Education gives a voice to the underprivileged; fosters equity and social cohesion. It not only positively affects economic growth but also promotes good health. Thus, the development of educational reform brings economic prosperity.

In the current era of technology, a lower level of education can restrain a country from economic development. A society cannot continue progress with mere survival achievement in education. Those with skills, money, or power quickly eliminate individuals barely surviving. As a human, we have the obligation and opportunity to change the environments in which the poor and

weak are exploited and to effect unfortunately accepted patterns of social behavior to allow the weak to thrive; the answer is education. Unfortunately, according to the Global Competitiveness Index (GCI), Pakistan ranks on 129th for Health and Primary Education among 137 countries (World Economic Forum 2017-2018). It shows that in Pakistan, the education sector has not received enough attention, as it should be in spite of all the government exertions to build concrete foundations for education through necessary measures, including increased allocation of resources for education (Javed et al., 2020).

Pakistan is included in those twelve countries of the world that spends less than 3 % of its GDP on education consistently. The weak education system has been causing a large population of unskilled youth. Reform in the primary education system is an initial step towards creating employment opportunities and deterring the influence of terrorism as well. In the Sustainable Development Goals (SDG) Agenda 2030, SDG-4 is about quality education and lifelong learning along with the several monitoring frameworks for the SDG-4 at national as well as international levels. The monitoring framework provides detailed information about the educational conditions and improvement to the policymakers as Pakistan could not accomplish the Education for All (EFA) agenda by 2015, so it will also be an integral part of SDGs vision of 2030. For this purpose, several significant initiatives have been taken in the form of structural reform. The structural reforms in education not only helped in the attainment of universal primary education and adult literacy and providing professional training for teachers and improving the overall quality of education.

Primary education is a base of all education stages and, thus, human development. Education reform at the fundamental level is key to the successful reform of the education system. The review of the educational reforms helps to distinguish between quality education and corruption. Rioters have been destroying schools and threatening the existing educational institution, making the challenge even higher and the need for reform urgent. Pakistan's educational system is broken, and the security of Pakistan, the United States, and even the global community depend upon its repair.

The objective of the paper is to propose reforms based on the review of current educational figures at the primary level and analyze the policies by mainly focusing on primary education. In connection with the objective of this study, we will try to find the answer through analyzing the exiting educational situation in Pakistan, reforms and policy initiatives since 1947 and finally highlighting the main obstacles to the development of efficient primary universal education systems.

2. RESEARCH PROCEDURE

The aim of this exploratory review based study is to assess the current primary educational challenges and issues based on the recent statistics and policies obtained from the national and international educational reports about Pakistan. The study reviews the last ten years' primary educational statistics and policy documents by mainly focusing on the initiatives related to primary education. The literature search was conducted from 2007 onwards to assess the educational performance of the central system in one decade through some special educational indicators.

This search was performed across two electronic databases, Google Scholar and Web of Science, in different broad areas, "Educational reforms in Pakistan" and "Educational policy" and

“Universal primary education in Pakistan.” After collecting the primary level educational indicators data for the last ten years, this study analyzed the policy documents by providing a summary. This research is based on the national educational records 2017-18. The figures for the year 2015-16 will be considered recent statistics because of the non-availability of the PSLM survey in 2017.

This study evaluates the performance of the primary education sector of Pakistan based on the 2007-2017 data, obtained from the national and international educational statistics such as World Bank, UNESCO, UN, CIEC, National Educational statistics 2017, Economic Survey of Pakistan 2017 and Social development review Annual review 2015-16. This study also reviews the reforms based on international and national reports. This study discusses the structure of the existing primary education, the recent educational statistics at the primary level, the emphasis on primary education through policy analysis, the foreign aid in the form of educational support, the educational concerns in the primary education system, and the proposed reforms respectively.

3. THE STRUCTURE OF THE EDUCATION SYSTEM IN PAKISTAN

The educational structure in Pakistan is widely categorized into six-level as Pre-Primary, Primary, Middle, Secondary (SSC), Higher Secondary or Intermediate (HSSC), that leads to further University programs (Undergraduate and Graduate and Post Graduate). Primary level education is primarily divided into Deni Madrasa and the modern education system, where the modern education system is further classified as English medium and Urdu medium. Mainly, English is a medium of instruction in both private and public schools, but the Urdu medium is only used in public schools as Urdu is the official language of Pakistan. Deni Madrasa has only Urdu medium and further subdivided into regular and fundamentalist. Based on the medium of instruction and public/private school, students pursue their education based on their higher secondary educational background from Colleges, Universities, Technical Institutions, or Deni Madrasa (National Educational Policy, 2017). This study solely concentrates on the primary level described in the following figure (Husain, 2005).

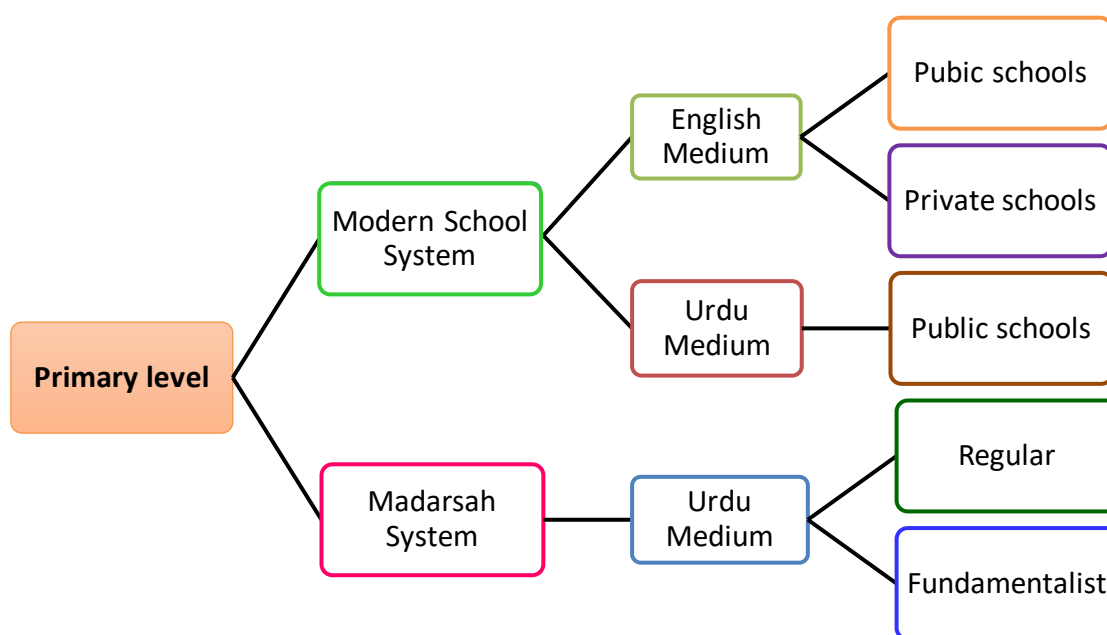


Figure 1: Primary education structure in Pakistan

4. THE CURRENT EDUCATION STATUS OF PAKISTAN AT PRIMARY LEVEL

The educational status of a country can be observed through several significant variables. The most commonly evaluated indicators include literacy rates for both males and females in different parts of the country, dropout rates at all levels of education, primary enrollment by several years spent in school by gender, pupil-teacher ratio, and government expenditures on education as a percentage of the GDP.

Pakistan is behind in the race of education development. Regardless of the enrolment rates, the total budget of education is stagnant at 2.2 percent of GDP for a very long time. The country also could not meet the target set by the Millennium Development Goal (MDG) of 100 percent primary completion rate. According to the latest education statistics of Pakistan, currently out of total have 150,129 primary schools, 131,376 (88%) schools are public schools, 18,753 (12%) are private schools. According to this report, these primary schools have 19.351 million students, 11.895 million (61%) enrolled in public, while 7.456 million (39%) enrolled in private institutions, Table 1.

Further, at the primary level, 10.722 million (55%) students are boys, and 8.628 million (45%) are girls. A total of 453,614 teachers are teaching at the primary level; in the public sector, there are 339,235 (75%) teachers in service, whereas 114,379 (25%) is teaching in the private sector (Pakistan Education Statistics 2016-17). The international and national reports and surveys are indicating the progress of primary education in the last ten years through educational indicators. These statistics were obtained from the National educational statistics, CIEC, UNESCO, WORLD Bank, etc.

Table 1: 2017 Pakistan's educational status at the primary level.

Years	Gross Enrolment Ratio (GER)	Adjusted Net Enrolment Ratio (ANER)	Effective Transition Rate (ETR) Primary to Middle	Out of School Children (OOSC)	Expenditure on Education as % of GDP	Pupil-Teacher Ratio (PTR)	Gender Parity Index (GPI)	Trained teachers
2007	81.09%	70.89	74.96%	29.11%	1.76%	39.95%	0.833%	84.03%
2008	87.25%	71.6%	76.71%	28.33%	1.82%	40.66%	0.843%	85.06%
2009	83.24%	73%	74.84%	26.94	1.75%	39.68%	0.854%	85.18%
2010		74.4%	80.14%	25.57%	1.77%	40.45%	0.852%	84.22%
2011		71.4%	77.04%	28.5	1.96%	39.83%	0.858%	82.8%
2012	77.99%	71.05%	78%	28.94%	2.14%	41.35%	0.87%	83.9%
2013	77.7%	69.81%	82%	30.18%	2.1%	42.54%	0.868%	84.89%
2014	70.02%	72.73%	81%	27.26%	2.2%	46.52%	0.852%	84.01%
2015	72.1%	73.6%	82%	26.39%	2.2%	46.34%	0.855%	82.46%
2016	72.03%	77.77%	84%		2.38%	47.63%	0.853%	75.35%

Source: National Educational Statistics (2017).

5. THE POLICY ANALYSIS POST INDEPENDENT AT PRIMARY LEVEL

At the time of independence in 1947, the priority for the leadership of the new Pakistani state was the creation of a new nation. The lack of infrastructure was not the only issue, as the five different provinces (Sindh, Baluchistan, Punjab, NWFP, and East Bengal) had to establish common ground despite varying cultural heritages and languages. According to the All Pakistan National Education Conference (PNE) in 1947, the aim was to achieve free and compulsory education in the first five years so that the balance in education can be attained. At the PNE Conference that same year, Urdu was established as the national language even though Urdu was not spoken in any of the five provinces.

Table 2: Analysis of policy from the perspective of primary education since Independency.

Policy	Targets	Strategies
Pakistan Education Conference 1947	Compulsory and free Universal Primary Education until 1967	Compulsory and free primary education The imposition of a special tax to support primary education Primary school age is 6-11 years To encourage the private sector to start primary schools
National Education Commission 1959	To achieve universal primary education up till 1974	Compulsory, free, universal and religious Primary Education Female teachers at the primary education level To provide additional funding.
The New Education Policy 1970	Primary Universal Enrollment up till 1980	To eliminate the drop out of rapid expansion by prominent schools To stress upon the female enrollment Female teachers at primary level
The Education Policy 1972	To attain universal primary education for boys and girls by 1979 and 1984 respectively	Free universal and compulsory primary education Prioritizing the rural areas To stress upon the female enrollment Identical school buildings with lower cost
National Education Policy 1979	To attain universal primary education for boys and girls by 1986-87 and 1992 respectively,	To expand female education To encourage the mosque and street schools for reducing the ratio of drop-outs
National Education Policy 1992-2002	Universal primary education through community participation and restructuring the existing education system	Recruit new primary teachers and arrange a training program for them. To encourage the participation of the community for achieving universal primary education Special program related to the importance of female students Additional fund at primary school
1998-2010 National Education Policy	To improve the participation of service teachers, Reduce the existing educational inequalities till 2010 and 45,000 New Formal Primary Schools Opening	Same curriculum for all schools regardless of public and private. To ensure political support and resource deployment related to primary schools. Implementation of Free, Compulsory and universal primary education To evaluate and revise the existing examination and assessment system
Education for All National Plan of Action 2001-2015	To attain Gross participation rate at a primary level of about 88% and universal primary education completion until 2015	To make compulsory primary education accessible and free by 2015 for all children To eradicate gender inequalities in primary and secondary education level up till 2005 and attain gender equality by 2015 with the emphasis girls education
National educational policy 2017	Universalization of Primary Education by universalizing access and enrolment, universalizing completion and universalizing the achievements based on minimum standards of education	Free and compulsory primary education To implement the Early Childhood Education and Care (ECEC) program To provide financial support to needy To meet the basic learning and cognitive needs through contents and skills To make school inclusive and child-friendly To improve the management structure on the primary education level. To arrange a teacher training system according to the professional standards of Teaching To bring better educational reforms in curriculum, teaching methods, monitoring and assessment, and evaluation. To increase the share of education expenditure especially allocated for primary education.

Source: Bari, Ejaz and Shah 2005, National education policy 2017

Seemingly contradictory to the changes already mentioned, the founders of Pakistan established Universal Primary Education (UPE) as a goal. But because of the security tensions concerning India led to comparatively higher spending on the military and lower on education. While the state struggled to set up a national education infrastructure, a parallel system of private

schools and Madrassahs existed from the start. The overwhelming majority of children not in school are not being restricted by legal prohibition or threats from terrorists, but more complex problems. The categories outlined below demonstrate the extent to which Pakistan's education system is falling significantly short of its constitutional obligation to provide universal primary education to Pakistanis.

Given the magnitude of the problems facing the education system in Pakistan, Pakistan's own National Education Policy of 2009 addressed the need for a "Paradigmatic Shift." There are impressive private initiatives and NGO-run schools in the country, but Pakistan, as a nation, is unable to provide basic education to its ever-expanding population that threatens to become a feeding pool for terrorist organizations. Overhauling and implementing an education system that was never successfully created in a nation during a time when an insurgency is tearing the nation apart will be a significant challenge. The enemy must be widely recognized as ignorance, with education reform a critical solution to the survival of the state. The solution cannot be oversimplified by developing a new fiscal solution and hoping for improvements, although management of and expenditure of resources must be addressed.

A significant factor commonly identified as a source of the failing education system in Pakistan is the dismal percentage of the country's GDP dedicated to expenditure on education. However, a review of international contributions to education has more than subsidized for this deficiency without producing improvements in literacy rates. Likewise, the experience of the World Bank and the failed Social Action Program demonstrate that merely applying more money has proven ineffective. Resources and the management of resources are indeed critical, but improvement in this one crucial area will not repair the failing system alone.

Analysis of study abroad programs currently available through internet research reveals a multitude of programs in technical and medical fields, but education programs are scarce. The United States promotes educational professional development for teachers by broadening existing study abroad programs and initiating new ones to educate future teachers of Pakistan. Study abroad programs for Pakistani teachers will provide the benefit of exposure to functioning programs and increase the perceived value of education within Pakistan. Offering scholarships or grants to the students will allow them to pursue higher education in their field and return to their community with an enhanced understanding of their profession. Students must be guaranteed a salaried position, preferably with their local community upon return from their study abroad. The money to support this exchange program can come from that allocated in the 2009 PEACE Act.

Exposing western students to the education system in Pakistan using study abroad programs will also work to publicize the state of the education system and highlight the challenges in reforming the system. U.S. exchange students can benefit from the program, but the focus must be on educating Pakistani teachers.

The Provincial Annual Development Programs (ADPs) FY2018 aims to provide the facilities, advancement in primary schools, construction of new schools, scholarship and stipends for girls, infrastructure, establishment of IT/Science labs, Early Childhood Education (ECE) at Primary level and support the Provincial Institutes of Teacher Education (PITE). Specific budget allocation of education for all provinces to meet the prerequisites of education.

6. INTERNATIONAL SUPPORT FOR EDUCATION

Since 1947, Pakistan receives foreign aid for different programs with a different share for educational development programs. Being specific to primary education and foreign aid, although it positively affects human development yet there exists a contradiction about its effect on the primary completion rate. On one side, aid has a negative influence on the primary completion rate (Fielding, et al., 2006), while, on the other side, it significantly enhances the completion rate of primary school.

Regardless of the effect of foreign aid on education, several donor agencies, including United Nations, World Bank, Department for International Development, etc. have been working at their best in Pakistan to promote education. The primary aim of these donor agencies is to meet the MDG target of achieving the primary completion rate. Although these donor agencies have their agenda, every government follows their plans accordingly, which is obvious through the U.S. policies for Afghanistan, which drove Al Qaeda and the Taliban into Pakistan. USAID has constructed and equipped 65 primary, middle, and high schools in five different agencies of the FATA in collaboration with the Japanese Government. USAID's education program also provides training, technical assistance, and infrastructure for the public and the private sector of education in Pakistan so that high-quality education in the entire country can be accomplished.

The very first MDG of education was to achieve a 100 percent primary completion rate. UN and other donor agencies provided funds to Pakistan to reach this goal. Similarly, the teacher's training program was supported by the Canadian International Development Agency, and the Department for International Development took initiatives for student's enrolment drive and teacher training programs and so on. Further, between the late 1980s and 1990s, including the World Bank and several donor organizations have also disbursed billions of dollars in Pakistan on a "Social Action Program." After ten years, that program failed because of not addressing the problem of corruption and inefficiency within the Pakistani education bureaucracy.

7. ISSUES AND CHALLENGES

The above facts, figures have shown that the educational system of Pakistan is continuously facing many familiar problems at the primary level in the form of access, equality, and quality. However, there is a strong emphasis on free and compulsory primary education, encouraging private schools for primary education, imposing taxes or deployment of resources for funding, recruiting female teachers to reduce gender disparity, training teachers, revising curriculum and assessments methods and prioritizing rural area, The national and international standards seem impossible to achieve as Pakistan was not successful in achieving the MDG of universal primary education till 2015.

The findings of the study summarize that high dropouts and low enrollment rates at the primary level are because of the economic factors, physical factors, geographic factors, and administrative factors. Economic factor includes lower economic development, lower per capita income, lack of basic facilities in schools and funds, poor health condition of the children. Physical Factors like outrageous behavior of teachers toward students, shelter-less schools, Orientation on the first day in school, Learning disabilities, Repellent school environment, and a high number of students in classes.

Long-distance of schools from homes and natural disasters in hilly areas as geographic factors, whereas lack of supervision and weak administration, teacher absenteeism, and political interference as regulatory factors are holding standards of primary education back. Further learning and teaching factors including irrelevant Curriculum, expensive books, and learning materials, no audio-visual aids, rigid system of examinations, lack of teachers and especially female teachers in remotely located schools, old teaching methods, teachers' inappropriate way of dealing with students, inadequate knowledge about child psychological needs.

Primary education is the major concern for the education sector in Pakistan, but unfortunately, it receives one-third of total education aid. So the basic education does not get the deserved attention from the donors so that it could deal with the issue of out of school children.

8. PROPOSED EDUCATIONAL REFORMS

The constant inflow of foreign aid has been using by corrupt government high positions officials for their agendas rather than the actual motives. It not only increases the gap between rich and poor but also helping the wealthy minority in repressing the poor majority, and thus depriving the poor people of their fundamental right to education and, therefore, to improve their economic situations. The long inherit history of corruption is initiating more challenges for the education sector to invest resources in a significant way. There is a need for better financial reforms that can cope with inherent corruption. The quality of the current curriculum is also debatable. There are plenty of schools that are not registered in the government system, so these schools can easily manipulate the curriculum and teaching strategies, which result in violence. There are also few cases where schools are forced to adopt the below standard curriculum or teaching methods. Thus, the curriculum is weeding out of political influence.

The great success of CAI stems from a profound understanding of human psychology. Empowering the people through their initiative is the basis of the "Three Cups of Tea Concept" (TCOT), allowing residents, parents, and civic leaders to design their school systems by themselves. They are empowered by selecting and donating the land, providing the labor and security for the schools, and benefit from watching as their children become educated. The local leaders can choose the range of initiatives to put in place. This opportunity initiates interest, discussion, and involve citizen at a significant level. Citizens who are more concerned about improving education can bring positive changes at their level rather than waiting and expecting from the government to take action or being forced to carry out instructions from the Pakistani government in Islamabad.

Reducing the number of students in class size can also play a very important role in education policy reform. The smaller PTR can enhance their learning achievements. The quality of in-service teachers can be improved through training programs (ASER, 2013). Governance reform should update the regulatory system and find new ways of the collaboration of public, private, and civil sectors.

Financial reform should provide a better way to use resources because it will stimulate more resources, as there is a strong need to pour money into an old education system (UNESCO, 2017). A reform plan should increase students' enrolment as well as the development of teachers through training. Reforms related to the pay incentives for teachers about performance can also help in

improving the quality of education. The education system also needs an education system that can create thinking abilities in students and make them creative.

The foreign aid should be given more to education as a priority, and its share of primary education should also be increased. While continuing to target important educational indicators, there is a strong need for implementation of the reform of public education on its own. Finally, yet importantly, the government should follow up its commitment by raising the education budget to four percent of GDP.

9. CONCLUSION

The primary education system of Pakistan is surrounded by the higher dropouts and lower completion or survival rate at the primary level because of several reasons. These reasons include the shortage of teacher, repellent school environment, unavailability of basic facilities, low quality of education, incompetent and uncommitted teachers, overburdened curriculum, old teaching methods, inaccessibility of educational materials, no activity-based learning environment, lack of monitoring, ineffective assessment system, low allocations of resources for education and then currently generated security issues. Corruption is a lead issue of Pakistan's public education system, in the form of teachers' absenteeism, but ready to collect their paychecks at the end of the month. The policies can only start the different educational programs, and foreign aid can only support these programs, but the Pakistani government must need to deal with corruption and inefficiency within the system. There is a strong need to focus on primary education with well-defined goals by SDG. These goals can be achieved by addressing all the aspects of primary education simultaneously, such as governance, financing, access, equality, teachers training, curriculum, ICT, water, electricity, sanitation, etc.

10. DATA AND MATERIAL AVAILABILITY

Information regarding this study is available by contacting the corresponding author.

11. REFERENCES

- ASER. (2013). Annual Status of Education Report, Pakistan.
- Gulzar H. Shah, Faisal Bari, and Nadia Ejaz, The Role of NGOs in Basic and Primary Education in Pakistan: LUMS-McGill Social Enterprise Development Programmed, Lahore University of Management Sciences, report (Lahore: Versatile Printers, 2005), 5.
- Husain, I. (2015). Education, Employment and Economic Development in Pakistan. State Bank of Pakistan, www.sbp.org.pk/about/speech/human_development/2005/Edu_Emp_Dev_Apr_15.pdf (accessed 2017).
- Javed, S. Wenlan, Z., Ghaffari, A.S., Bhuttah, T.M. (2020). The Mediating Role of Technology Between Students' Attitudes and Engagement Towards Science: A Quantitative Study of Students' Perception. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies*. 11(3), 11A03H: 1-10.
- National Education Policy. 2009, Ministry of Education, Government of Pakistan, 1.11 "The Way Forward: A Paradigmatic Shift," <http://www.moe.gov.pk> (accessed October 2017).

Stern, N. (2001), “Investing for Growth and Poverty Reduction: Institutions and People”, Speech delivered at Islamabad on March 29.



Tariq Mehmood Bhuttah is a PhD Scholar, School of Education, Shaanxi Normal University No. 199, South Chang’an Road Xi’an, China. He holds a Master’s degree in Philosophy, a Master’s degree in Education, a Master of Science in Sociology, an LLB & a PGD (IT). His research interest includes Curriculum & Teaching Methodology, Educational Psychology, Comparative Theories and Philosophy.



Dr. Hakim Ullah is a Research Assistant, School of Education, Shaanxi Normal University No. 199, South Chang’an Road Xi’an, China. He got a Master of Education and a Doctorate of Philosophy degree in Curriculum & Teaching Methodology. He is interested in Curriculum & Teaching Methodology, Educational Psychology.



Saima Javed is a Ph.D. Scholar, the School of Education, Shaanxi Normal University, Xian, China. She holds a Master of Philosophy in Economics. Her research interests include Curriculum & Teaching Methodology, Educational Psychology, English Language Learning, Technology, Policy Analysis.



Professor Chen Xiaoduan is Professor of Curriculum and Instruction in the School of Education at Shaanxi Normal University, Xi’an, China. He is Vice Director-General, National Association for Theories of Teaching (China). He is also Director, National Association for Theories of Curriculum (China). He got a Bachelor of Education from Xi’an Institute of Physical Education, a Master of Education from Shaanxi Normal University. His research focuses on Teacher Education and Teacher’s Professional Development.
