# A BRIEF ANALYSIS OF EDUCATIONAL POLICIES IN CHINA AND PAKISTAN DURING COVID-19

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## Abstract

The purpose of the research is to identify challenges arising from the two policies of Technology Advancement and Online education with element of school management in the context of a higher education institution in China and Pakistan, and to devise effective interventions to address the issues. The study was conducted with teachers chosen from random institutions followed by a semi-structured interview. The findings from the policy analysis of China indicated that internet connection, insufficient ICT-literacy, lagging appropriate pedagogical approaches are the three challenges for Technology Advancement. As for the online education, inability to shift to a virtually managerial mode and limited technological capabilities are the major issues in China. Whereas, in Pakistan, the occurrence of the COVID-19 has exposed many deficiencies in policies, such as inadequate infrastructure construction, high drop-out rate, improper allocation of educational resources, and etc. Therefore, a nation-guided network infrastructure construction, provision of ICT-literacy training, and updated technology-based pedagogy is proposed to mitigate the challenges of the first policy; while a well-developed framework of virtual management and related training sessions can be provided by educational authorities to address the issue of the second policy of China. On the other hand, based on the policy changes by Pakistani government before and during the pandemic, this paper studies and discusses the problems and puts forward corresponding solutions in promoting the development of online education and educational technology in Pakistan. The purpose of this paper is to provide feasible suggestions for both countries technological industry, relevant enterprises, and national education departments.

**Introduction and Problem Definition**

In recent years, technologies represented by big data, cloud computing, and artificial intelligence have developed rapidly. They have profoundly affected society, culture and economy, yet, have provided a solid guarantee and technical support for the construction of education system. Due to which, the countries have invested a lot of manpower and material resources. However, the depth and breadth of technology application in education still needs to be improved (Yang et al., 2021).

The Ministry of Education of China promulgated the *"Educational Informatization – 10 Year Development Plan (2011-2020)"*, which shows that the government has given a high degree of information technology in education development (Zhang and Qian, 2020). During the Covid-19 pandemic, the education sector and each university issued some policies on how to carry out teaching activities, especially, mentioned the use of advanced technology to ensure the online teaching process goes smoothly. However, technological advancement implementation in institutions still faces many challenges. Similarly, Pakistan is no exception. After a long period of school blockade, Pakistan's online courses began to rise, however, Pakistan still faces many problems in scientific and technological progress and online learning. The weak basic charity of online learning cannot meet every child's educational needs. Even students who have access to online education may lose opportunities because of their families' lack of understanding for online courses.

Due to the socio-economic impact of covid-19, the income of many families has decreased and many parents let their children drop out of school. In the context of the pandemic, according to early estimates by the World Bank, at least 1 million children in Pakistan are expected to drop out of school and the dropout rate of girls is even higher. (Ejaz, Khaliq and Bajwa, 2021). Although the Covid-19 in China has been effectively controlled, human-to-human contact still exists and shares potential risks, due to which, online education became a hot issue. This study will look at and discuss the problems faced by Pakistan and China in technology development and online learning, and put forward appropriate strategic suggestions. This study also depicts the responses from two teachers of China and Pakistan separately to understand the education policies of the two countries during the Covid-19 period.

## Research Questions

Q1: What are the two educational policies that emerged during the Pandemic in the developing countries i.e. China and Pakistan?

Q2: What were the problems of those two educational policies?

Q3: What are the challenges faced by the institutions in China and Pakistan regarding these policies?

Q4: Who are the stakeholders of the selected institutions and what are the proposed solutions?

## Methodology

A Qualitative approach was used adopting semi-structured questions for conducting online interviews with two teachers from educational institutes of China and Pakistan. A semi-structured interview is open, enabling new ideas to emerge as a result of what participants say during the interview (Chen, 2020). In a semi-structured interview, the interviewer usually has a framework of themes to discuss and concentrates on filling the gaps through analyzing the issues and problem analysis. For this study, the researchers have chosen two policies to investigate and get a better understanding on the policy implementation of technological advancement in the institutions and moving towards the online education. The participant A, with over two years' working experience, is a female English teacher in Primary School located in Hyderabad, Pakistan and the students' age range of participant A is from 3 to 16 years old. Whereas, Participant B is a 34-years old male teacher with four years teaching experience and works in a Public College in Xi'an China. The students' age range is from 18 to 21 which give us a point of view from two different levels in Education Sector. The interviews were transcribed manually and one interview from China had to be translated, as English is not the first medium of language.

## Issue Analysis in China

Online learning and teaching as the representative of technology advancement policy in China, it has become the only safe and effective method for many schools during the Covid-19 pandemic (Wang et al., 2020). However, challenges occurred during this transformation.

The first obstacle is that the network connection is not stable enough which resulted in poor class experience and effectiveness. Both learners and institutes are struggling with the

overloaded bandwidth and online learning platform. In addition, for the students who are in places with poor coverage of regional network service, it is very difficult for them to participate in online learning activities.

"*...the most common complaint of teachers is that the instability of the network often leads to the failure of the class to go smoothly...the network connection breaking really made everyone very anxious and disappointed...students from some remote areas will also report to us that their network signal is not good... they are often absent or late for online classes.*" -- *Participant B*

In addition, teachers with a low technology-literacy also lead to the difficulty and reluctance to prepare themselves with adequate technological knowledge and skills.

"*...there are elderly teachers in our school, and they are not very adaptable to these newly introduced teaching systems.*" -- *Participant B*

For the policy of online education, HEIs faced many difficulties in switching their management modes.

"*Although our school had done some preparation before the policy of switching to online education mode was implemented, but because the time is too short and with no prior experience to refer, our school was not able to perfect the establishment of a computer-based and web-based school management system...*" -- *Participant B*

Due to the closed management of the school, on the faculty side, many employees worked from home. Therefore, to have a sudden switch to a virtual system for work, many institutes are not fully prepared with their IT facilities to support this shift. Secondly, the management of schools in the virtual system requires that both the school administrators and faculties must have certain technological capabilities. However, some institutes do not have an adequate training for their staff or leadership to prepare for the smooth managerial process through ICT systems.

## Issue Analysis in Pakistan

According to policies publicized by Ministry of Federal Education and Professional Training Government of Pakistan in 2018, Pakistan has been actively improving teaching, student learning, student assessment and school monitoring through technologies such as online and offline free content, adult literacy projects and the use of virtual classrooms in remote areas. Even though the government is making efforts, the impact of the pandemic has

also exposed many problems like lack of network infrastructure and electronic product infrastructure, especially in some areas far away from cities. Although Federal and provincial governments in Pakistan have decided to broadcast the contents of K1-K12 through television channels, but according to the data of the DHS in 2017, in Punjab, only 17% of the children in the poorest families have television, while, 95% of the children in the richest families have television. This apparent inequality prevents children from poor families from benefiting from this policy. On this aspect of infrastructure, participant A stated that:

*"We were unable to make zoom and online classes compulsory as we are in a rural area and we face network issues and electricity problems. Many parents could not afford gadgets for online classes, therefore we had to consider for the students who could not afford internet or gadgets for such activities."*

It can be seen that electronic technology products are scarce in remote areas of Pakistan, and many children lose the opportunity to continue education during the pandemic. In addition, family reasons like helping their parents in harvesting crops during crop harvest season, will also lead to a decline in the proportion of students' online learning (Rabea, 2021). In families with many children, several children need to share a device, which makes it difficult to take care of everyone and let everybody be in action (Koen and Amer, 2020). In the policy announced in 2018, the Pakistani government also mentioned that the Ministry of education will play a leading role in utilizing the potential of information and communication technology, and provide a lot of opportunities to promote the penetration of mobile social media platforms in remote rural areas.

On the other hand, the policy announced in 2018, Pakistani government also mentioned that the Ministry of education will play a leading role in utilizing the potential of information and communication technology, and provide a lot of opportunities to promote the penetration of mobile social media platforms in remote rural areas. In the statement of participant A, the way they communicated with parents or students during the pandemic was also mentioned:

*"I believe that was it, WhatsApp and social media, Facebook App. That was the only communication method we were using. If the student is needing more guidance for writing the tasks, they may call us."*

Furthermore, from being offline to online, although the role of teachers has not changed but the form of work has changed. Teachers need to be familiar with the operation of online

courses and provide more attractive content. As mentioned in participant A, teachers' teaching strategies have changed, which is a new challenge for teachers.

Therefore, it is undeniable that the pandemic has promoted the progress and development of relevant science and technology and online courses. However, based on the existing scientific and technological foundation, the development of these two aspects are still limited.

### Proposed solutions for China and Pakistan

In response to the challenges faced in the policy of technology advancement, supportive actions should be taken from the administrative side. The national telecommunications department can provide guidelines and standards for network service providers regarding network service infrastructure construction (Yang et al., 2020). The major parties involved would include the national telecommunication administrations and network service providers and educational institutes and students. Secondly, pedagogical updates should be discussed, trailed, and refined among the institutes to adapt to the newly-emerging technology approaches implied in education. Moreover, the solutions that need to be considered for the above discussed problem are; firstly, local educational administrations can provide a practical framework for institutes to transfer the school management into computer-based systems. Secondly, sufficient training sessions directing at the usage of these systems should be arranged from the institutes' side, which holds institutes' leaders accountable. The government should increase investment in the education industry, support and promote the development of the electronic industry, strengthen the network construction in remote areas, improve school infrastructure and improve the welfare of teachers. The Pakistan government and leading educational technology providers launched the Teleschool program to broadcast free learning content to grades 1-12 students (Ejaz, Khaliq and Bajwa, 2021). Therefore, the government needs to make continuous efforts to provide students with improved conditions for online courses.

### Strategic recommendations

For limiting the issues of the policy implementation of technological advancement and online learning, China and Pakistan can review a set of strategies such as having the relevant administrators and businesses to provide supportive infrastructures as the basis for technological promotion in educational sector. This is because, web-based teaching and learning as a representative of technological advancement in education sector is greatly limited

to the network quality and coverage as highlighted by the respondent from China and Pakistan in this study. Moreover, subsidizing the students with financial difficulties to support the technological application can be helpful. The policy of technology advancement in China and Pakistan is a typical top-down design, however, the criteria of effectiveness for polices with such a structure usually depends on the major stakeholders at the bottom (Wang, 2020). For example, sufficient financial support from the government for IT facilities in schools, or technology-related training programs for teachers provided by local educational administrations would help mitigate both the possibly tangible and intangible obstacles encountered by the institute or teaching staff in the first place. While, for coping with the online education, the educational authorities should establish standard operational procedures for institutes to accelerate the shift of managerial mode from face-to-face setting to virtual systems. If consultation or knowledge regarding web-based human resource management, teaching quality supervision, organizational conferences, and school-student communication can be provided by educational administrations, then this may greatly accelerate the managerial shift for institutions.

Furthermore, Liu and Niu (2020) mentions that through systematic training, teachers can complete the teaching design in line with modern educational ideas and complete structure would improve the analysis, design ability, reflection improvement of teaching activities, and establish correct teaching concepts. So, education ministry and technology industry should consider launching more attractive and efficient courses and enhance the function of online evaluation to facilitate teachers to master students' learning effects and learning situations in both developing countries. In addition, due to the lack of face-to-face supervision and guidance, appropriate assessment of students in the process of online learning is an effective way for teachers to master students' learning situations. Therefore, schools should set up reasonable assessment procedures and standards for both students and teachers in order to promote cooperative learning in order for both countries to have healthy running of sectors (Li and Wei, 2020).

## Conclusion

Education reforms, like other areas of reform, will encounter many anticipated or unexpected obstacles in the process. This study sheds light on China and Pakistan's Policy for technological advancement and online education during COVID-19 Pandemic that were applied for the development of the country and coping with the deadly virus spread. However, in order to fully implement and be successful, it is most important for policymakers to consider

stakeholders prior to the policy implementation and react swiftly to deal with unexpected situations in the process of policy implementation. Whereas, it is recommended for the future research to incorporate quantitative method to gain a more accurate result regarding the stakeholders' attitudes towards the policy reforms. Moreover, a larger sample size consisting of not only teachers but also students, parents, and managerial staff in the institution can be considered in the further researches to acquire a more well-rounded and convincing result of the study. Lastly, to conclude, both China and Pakistan being the developing countries are taking the necessary steps such as collaborations of different sectors and putting joint efforts with providing the trainings to teachers and coming up with the coping mechanisms, which will not only help them in current times but will also enable them to be running in the game being in-line with the developed countries like USA that has been practicing these policies for a long time.

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