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"Role of Technology During the Pandemic in District Panjgur Balochistan"

Abid Hussain[1] *Greenwich University, Karachi*
M.Khalid[2]**:** *Basic Sciences Department, Balochistan University of Engineering and Technology, Khuzdar,*
S.M. Irfan[3] **:** *Faculty of Social Sciences & Humanities, Greenwich University, Karachi*

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KEY WORDS

Pandemic, technology, learning, COVID-19.

ABSTRACT

To help slow the spread of COVID-19, many different safety measures have been put into place all over the world. In most places, this has meant that schools for younger children are closed, people are not allowed to visit public places like parks, and everyone is encouraged to keep a safe distance from others when they are in public. The present study has been organized in a way to achieve the objective of investigating the challenges faced by Head Teachers during the pandemic in Panjgur, Balochistan. The researcher has entered into exploratory research through the mechanism of a qualitative design through semi-structured interviews. The results are depicted in the form of highlighting a number of issues that face technological devices, and their usage. The study will be of much use to improving virtual communication between groups, teachers must be well-equipped and educated for online learning especially in to fight against the COVID-19 pandemic.

INTRODUCTION

The twenty-first century is often referred to as an age of technology (Bagshaw, 2016). In today's world, technology plays a crucial role in our lives and it has been deemed as the core of economic growth (Biagi et al, 2013). Thus, technology made our jobs much easier and consumes less time (Bagshaw, 2016). Technology has an influence on practically every industry, including education.

Much research has been conducted to determine how contemporary students choose to invest in technology and how technology influences their learning., revealed that it has improved their learning achievements through using current technology and tools (Colao et al., 2020). They also found it much more interactive. It also provided the man with a tool for organizing his thinking and for classifying his experiences (Brill& Galloway, 2007). Thus, it has become a masterful means of translating creativity among young people.

The world we now live in is a continuous constant state of change (Collins, and Halverson, 2009). What is present today might not be present the very next day. Remember what happened during the COVID-19 outbreak; the character of institutions and instructional methods evolved significantly. According to research, online learning has been demonstrated to improve information retention through various learning courses (Bubb, and Jones, 2020). The change that alone has experienced created a significant impact on our lives (Comi et al., 2017). These changes had carried technology in their nature and the world went through lockdown during a pandemic. People started working at home, virtual shopping began starting and students began their learning at home online format. Parents began to seek help from the teachers through others, and schools in Balochistan Province suffered badly, as there were limited facilities available to continue classes during the pandemic Thus, on 15th September 2020 the government took a bold decision to reopen all the schools. As expected schools were not well prepared for the Post-Pandemic scenario and most of the schools did not take precautionary measures & didn't follow guidelines to prevent the spread of the virus. Unfortunately, many students and teachers tested positive for Coronavirus, GGHS Lady Sandeman Quetta was also one of those schools where students and teachers were affected by this disease. Due to unawareness and lack of healthcare equipment, immediately allocating a budget of 250000/to GGHS Lady Sandeman. Planned was shared with cluster heads and Parents Teachers School Management Committee (PTSMC) where School Development Plan was PMC and mobilized the Community, school administration and students; provided schools with SOP's to follow in order to prevent the spread of the virus where all the teachers and students were given training for awareness. Notification was issued for the formation of teachers Committees by Education Department to give the responsibility to monitor the school learning environment, students' health and hygiene and maintaining social distance between students during their academic period. The Standard Operational Procedure (SOP) mentioned that students should be disinfected/sanitized and to maintain a safe distance in the Classroom with a minimum distance of 3-6 feet. School was also facilitated by Personal Protective

Corresponding Author's Email Address: gu9464@greenwich.edu.pk

Equipment (PPE) like Portable and fixed hand wash station, face masks, Soaps, Infrared temperature Gun, first aid kit, MHM kit and hand sanitizers for the protection of the children from covid-19. After the provision of SDP, students and teachers were properly following SOPs therefore the situation have completely turnaround and thankfully no more positive cases have been reported yet. The attendance ratio has increased rather compared to earlier situation. The parents have showed trust in sending their children to school regularly. Parents and teacher have given credit to project of UNICEF, ESP for succeeding to providing safe environment to children in schools. With this abrupt transition, as learners were completely separated from classes in several areas of the globe, many people wondered whether the acceptance of online learning would continue after pandemic, and how such a move would affect the global education at large. This paper attempts to discuss the role of technology a during pandemic, and see what strategies, Government of Balochistan have applied to continue teaching and learning process.

PROBLEM STATEMENT

Technology has greater promise in terms of assisting pupils regardless of gender, handicap, distance, language, culture, race, age, or economic position. Whereas, most of the schools of Balochistan have no access to technology. Neither schools have IT teachers nor does the department have such facilities to teach the students. Recently Education Department has created and advertised IT teacher posts for a few high schools and some schools also have IT lab without IT teachers. IT lab established in high schools are left unutilized, and remained nonfunctional. Thus, technology integration is highly mandatory for todays' world, as teaching learning ways have been changed with emergence of neoliberalism and pandemic.

OBJECTIVES OF THE STUDY

The main objectives of the research is to discuss the role of technology during pandemic in District Panjgur

1- To examine the role of technology that influence students learning in schools during pandemic
2- To investigate the activities of teaching learning that applied during pandemic in Panjgur
3- To investigate the challenges faced by Head Teachers during pandemic

RESAERCH QUESTIONS

1. What is the role of technology that influence students learning in schools during pandemic
2. What are the activities of teaching learning that applied during pandemic in Panjgur?
3. What are the challenged faced by head teachers during pandemic?

SIGNIFICANCE OF THE STUDY

The finding of the study will be helpful for the Ministry of Education and other stakeholders to integrate technology at the school level in Balochistan**.** The study will also help to raise the level of awareness among parents and guardians regarding technology which is quite important during the emergency and pandemic period. It will also make them aware that children with technological skills could fit themselves in the market slot for a better job as compared

Corresponding Author's Email Address: gu9464@greenwich.edu.pk

to those children who are lacking technological skills.

LITERATURE REVIEW

In modern education, technology offers the basis to expand access to education and also increase its relevance (Crawford et al., 2020). Similarly, pandemics have moved the globe closer to technology and completely changed the educational system, while many claims that it is no longer relevant (Ferdig, et al, 2020). In his book, 21 Lessons for the Twenty-First Century, Yuval Noah Hariri believes that schools should continue to emphasize critical thinking and adaptation in order to remain competitive in the future. Could the change to online education be the catalyst for the creation of a new, more effective paradigm of student instruction? Although some studies have expressed worry that the hasty nature of the online migration has harmed this goal, (Comi, Argentin, Gui, Origo, and Pagani, 2017) while others want to incorporate e-learning into their new curriculum after experiencing its benefits (Baek, Jung, and Kim, 2008).

In addition, there is evidence that learning online may be more productive in several ways for individuals with access to technology (Ferdig, et al, 2020). Several studies indicate that online learners retain 25-60% more information than classroom learners, who retain just 8-10%. (2000) Bransford, Brown, and Cooking. This is mostly due to the fact that students can comprehend faster online. In addition, students spend 40-60% less time studying than in a regular classroom since they may read, skip, or speed through ideas at their own pace (Rochelle, Hoadley, Gordon & Mean, 2000). As a consequence, it promotes learner engagement by enabling students to pick what they want to study at their own pace and work on challenges from the real world.

Despite this, COVID-19 has triggered the closure of all schools worldwide, leaving 1,2 billion children out of school. A state of emergency has been proclaimed, and as a consequence, teaching and learning have radically switched to a digital platform. In Denmark, children up to the age of 11 are returning to school after being out until March 12th, whilst in South Korea, kids were engaged in virtual classrooms by their instructors.

Already before COVID-19, there had been tremendous growth in educational technology, with global investment reaching nearly US 18.66 billion in 2019 and the overall market for online education projects reaching 350 billion dollars by 2025, whether it is language apps, virtual tutorials, or teleconferencing.

Since mid-February, when the Chinese government mandated that a quarter of a billion full-time students complete their education through an online platform, Google classroom has been widely used. This resulted in the largest online classroom period in the history of education, with almost 730000 students (or 81 percent) in Wuhan taking courses through the Tencent K12 online school.

But there are still problems to solve. Many learners who don't have reliable access to technology or the internet find it hard to take part in digital learning. Several countries have seen this kind of difference. For example, for schoolwork, 95% of students in Switzerland, Norway, and Austria have access to a computer.

In the past few years, it has been suggested that technology be used in the classroom (Gorder, 2008; Mama and

Corresponding Author's Email Address: gu9464@greenwich.edu.pk

Hennessy, 2013; Comi et al., 2017). Tondeur et al. (2008) focused on three ways that computers can be used in the classroom: as basic computers, as tools for getting information, and as tools for learning. As computers have always been used in different ways, this hasn't changed. So, in the traditional approach, teachers use the teacher center to pass on information, while in the student center approach, teachers focus on different skills like problem-solving, teamwork, arguing, and critical thinking. These skills are called "global competencies" in the 21st century (Ananiadou and Claro, 2009). In a similar way, the study by Tondeur et al. (2017) put more emphasis on a constructive approach, where teachers are expected to use technology in the classroom in a constructive way rather than in a traditional way. So, putting technology into education needs a constructive way of learning to meet the needs of students.

Pakistan is still struggling with digitalization because of social, economic, and political problems that have been around for a long time. It's time for Pakistan to learn from both developed and developing countries about digitalization (Malik & Raziq, 2021) in higher education and hybrid modes of learning. The disruptions of digitalization show what the future holds for the digital development of universities in Pakistan, which is really the digital development of the country as a whole.

At the moment, about 59 percent of people in Pakistan can read and write. Even though this number seems low compared to India, where only 53% of people can read and write, and China, where 86.5% of people can read and write, it is not as important as you might think. The current government is working hard to make sure that all Pakistanis get a good education. One way they are doing this is by giving people who can't afford it access to digital knowledge and resources.

Digital education is a new way of learning in Pakistan that uses digital tools to solve old problems with education. Digital education programs build on what teachers and students do well and help them work around some of their weaknesses. These projects are based on four main ideas:

- Use of full lesson plans
- Blended, individualized learning for teachers and students;
- Technology tools that are easy to use
- Methods of teaching that work.

Pakistan has had digital education since 2002 when it started a National eLearning Initiative (NELI). It was started so that people who don't have access to formal education because of where they live or other reasons could still learn. The e-Learning program is an effort by Pakistan's Ministry of Education to give everyone a chance to learn and close the digital divide in the country. NELI currently connects 2,400 schools with 3,100 community colleges and over 500 institutions. It will soon be expanded to cover over 40,000 schools. Pakistan's education system is beset by difficulties. In the 2014–15 budget, the education budget was lowered from 6% to 4.2 percent, indicating that education is a low priority area. Education should blow-priorityment's main priority, and sufficient financial resources should be allocated to it. Corruption costs a lot of money in the education sector, and the government should take action to eliminate it.

In Pakistan, there is a big difference between people who come from privileged

Corresponding Author's Email Address: gu9464@greenwich.edu.pk

backgrounds and those who don't. Only a few percent of private schools use digital equipment to meet students' needs, but in public schools, that number is almost zero, and it's not even taught as a subject. So, public schools suffered a lot, especially in Balochistan, where most people don't have access to water, roads, electricity, or the internet. As a result, the government of Balochistan started the UNICEF-funded Mera Ghar Mera School program, which told teachers to hold classes at home with the students who were there. They were told to share what they did each day in a WhatsApp group. This way, their daily activities could be tracked and they could get feedback on how they were doing. To make the classes more useful, the curriculum was shortened and students were moved up without taking a proper exam. So, developing countries with few resources couldn't handle these problems on their own. If developing countries didn't help them, the goal of digital learning wouldn't be met.

RESEARCH DESIGN

The qualitative research designed was used to gather responses of the participants to obtain the purpose of the study. The research mainly limit to explore the role of technology during pandemic in District Panjgur Balochistan.

Qualitative research is engaging and interesting research, that engage us in depth analysis and keen observation. In this research method, we sought out deferent experience of social world of the research participant and the people we were engaged with them.

Further, as per the objectives and the nature of the exploratory research, the researchers used an interview method to collect data from the respondents. Interviewing is a tool to gather in-depth information from people and it is commonly known as the method in which we do interact through an informal setting with the respondent and collect data from him or her (Kumar, 2009).

The overall study as per its nature is followed by exploratory research. Exploratory research determines and explores the way things are through the lens of the participants. In other words, a kind of study involves assessing attitudes or opinions toward individuals (Patton, 2002).

Population:

The research was conducted in Education Department Panjgur focusing on head clusters. The sampling institutions were High schools Panjgur 10 head clusters were selected from males and females.

Random sampling was used to get information. The sample included the school headmaster/headmistress at least 10 out of 43 were selected from the school.

Random Sampling:

It is one of the most appropriate sampling techniques for this study because officers and head Masters/ head mistress were quit abreast of the challenges they had faced during pandemic. The researcher made the list of the Head Masters (male and female) following some particular criteria to collect data from the samples through the interview.

Semi-structured interview:

The Semi-Structured interviews were conducted by the researcher. According to Sideman's semi-structured interview, it is a kind of conversation

Corresponding Author's Email Address: gu9464@greenwich.edu.pk

between the researcher and the participant which allows participants to reflect on his/her views and perception. During the semi-structured interview, some related questions were asked to have an insight into the research questions in deep and explore the challenges that head teachers faced during pandemics.

Data Analysis:

In the data analyzing process, the researcher used the data which he obtained from the field. The study followed the descriptive method through developing themes to analyze the collected data.

Limitations of the Study:

This research is purely based on District Panjgur, can't be generalized to any other District of Balochistan.

RESULTS

The researcher approached thorough 10 participants to conduct the interview from them. But eight respondents gave the interview. The responses and results of the interview are as follows;

Head Teachers' perceptions about technology:

Based on these responses, the researcher gained an overview of head masters comprehension and use of technology. Head teachers feel that information and communication technology improves access to education. Similarly, Vawn Himmelsbach, (2019) stated that it ensures the state's competitiveness by raising standards of living, quality of life, as well as economic growth. This argument is further supported by D'yakova and Sechkareva (2019) indicated that it is a part of a new information system, becoming a sphere of enjoyment, a field for acquiring new abilities, enhancing skills, and creating new jobs for the next generation according to. R1 stated that based on these responses, he had gathered the opinions of students who believe that technology can help them improve their learning efficiency. As research findings of Vawn Himmelsbach (2019) supported the students' perception and argued that students engage in online learning in digital settings, faculty transforms educational methods through individualized and innovative learning strategies. This outcome is consistent with the goal of technological learning, which is to improve the efficacy and efficiency of learning. According to R2, technology presents the benefit of delivering constructivist teaching tools that are not limited by time or location and it is an imperative facet of a modern education system. According to surveys, it enables students to improve their skills in artificial intelligence, data processing, and analysis (Edwards, 2010). Thus, the necessity of technology and the study of new educational approaches are becoming increasingly important.

Technology not only helps to increase access to learning, but it also helps to improve the quality of learning (Menashy & Zakharia, 2019). Students feel that implementing technological learning will help them learn more quickly. It has been shown that the role of technology in education is to allow students to choose factors that will increase their learning quality (Chekanov & Neizvestny, 2019). Technology can be used to improve learning activities, raise student academic achievement, foster positive student study habits and attitudes, carry out more

Corresponding Author's Email Address: gu9464@greenwich.edu.pk

fascinating and fun learning activities, and generate additional educational activities, among other things (D'yakova & Sechkareva, 2019).

As a result, it may be stated that students can already make use of one of the electronic access points. R3 stated, provides access to a variety of electronic resources, including interactive video, the Internet, e-mail, and the World Wide Web. The internet, e-mail, word processing gadgets, and the World Wide Web, according to R5, are the most regularly utilized types of technology. It may be stated that one of the benefits of adopting specialized technology is that it supports learning facilities as a whole and allows for real-time interaction R7. Thus, because of the importance of virtual reality, and internet applications for today's kids, educators are encouraged to employ information and communication technologies in the classroom.

PowerPoint (PPT) is a presentation program that began in the business world and has since spread to the educational world. PPT is a digital tool that is frequently used in learning, according to the data. PowerPoint is the preferred presentation software for Computer Aided Teaching, according to R8. Based on the results of the analysis of the data on the understanding and use of technology in teachers of higher schools, it is concluded that head teachers feel and know the importance of technology, however, they hardly use it in teaching learning as they have limited skills to integrate with teaching, and believes that technology can be a support in increasing the effectiveness of learning. A survey of Russian and international studies, in particular, leads us to infer that there is a strong link between academic achievement and the use of digital technology. Whereas, there are also works in the scientific literature that address the difficulties of digitization in education and their potential negative implications.

Teaching Learning activities during pandemics:

From the respondents' perceptions, the researcher also gained an understanding of the activities done during pandemics by PTV, UNICEF, and BESP. WhatsApp groups were formed in each district, where head clusters were asked to share their daily teaching-learning activities and videos. Through this, online teaching-learning activities increased, that ultimately boasted teacher students' engagement. Videos shared in the classrooms were relevant to the interest of the learners as replied by many respondents. Earlier students' struggled badly as the contents were being taught through videos were new to them, but gradually they became habitual to learning through videos, and their interest maximized. In responding to the question about 'Mera Ghar Mera School', the teachers shared that they were asked to begin classes at home and were bound to share activities on a daily basis in the Whatsapp group, and feedback provided to them was found quite effective. Students were also arranged to attend classes in shift-wises, thus it helped them to learn better in a healthy environment. Responding to the question, many argued that Kits provided to the students, helped them to become more conscious regarding health issues. Budgets were provided to each school for making immediate arrangements for washing spaces for the children, masks were also provided to students in order to protect them from the pandemic virus. Whereas, from the various responses it was found that, people like to continue things, the way they often like to

Corresponding Author's Email Address: gu9464@greenwich.edu.pk

do them. Challenging people's perceptions, with regard to adopting new technologies, it requires some training to change their teaching-learning perceptions toward the digitalization of education.

Teacher Constraints on the use of technology in Teaching Learning:

It is apparent that the majority of head teachers face challenges when it comes to using technology. Not understanding usage, trouble using the gadget, and being inexperienced with the use of electronic devices as much as, no willingness to know as much as and others as much as were some of the barriers discovered. These barriers, according to R8, can arise because individuals are not acclimated to using mobile in everyday life. The limits of employing technology in the learning process, as supported by opinion R7, are a lack of assistance, a lack of trust, and a lack of equipment. To summarize, it is vital to use technology in the classroom in order to become familiar with and comfortable with using digital knowledge. It is also important to adopt a clear objective for new technology. Vague and unclear objectives may create hurdles toward outcomes, and cause failure in the implementation of the digitalization of education. Furthermore, in order to operate these devices, the school also needs competent and skilled teachers to effectively use these technologies. However, many skill gaps are prevalent across departments. To fill these gaps, vacancies may be filled and teachers should be provided with skills to integrate technology in the teaching-learning process. In short, digital technology is a prerequisite for teaching and learning. To cope with the challenges of today's world, modern technological skills are necessary to apply in schools.

The majority of students anticipate an increase in the use of technology in lecture activities. Respondents voiced their dissatisfaction with slow Wi-Fi access. The majority of teachers anticipate an increase in easier and more efficient internet access. It can be stated that in order to assist in enhancing the quality of the study program, its administration must be done gradually while taking into account the priorities and available resources. It is hoped that by following up on student feedback, the quality of digital learning lectures will improve, as well as teacher happiness.

DISCUSSION AND CONCLUSION:

The head teachers' grasp of how to use technology highlights a number of issues that face technological development. In general, head teachers understand the purpose of using technology and believe that it can help them improve their teaching efficiency. However, teachers face challenges when it comes to using technological devices, including not understanding how to use devices, difficulty operating devices, and not being used to using devices. To meet these obstacles, it is vital to understand learning goals and become a research consideration. Head teachers expect that by increasing the use of technology in lecture activity, it will become easier and faster to access the internet and become accustomed to utilizing devices, allowing students to use and understand technology.

The COVID-19 Pandemic is a global problem that has afflicted many people in many nations. Kosovo, being a developing country, had to struggle with figuring out how to stop the SARS-Cov2

Corresponding Author's Email Address: gu9464@greenwich.edu.pk

virus from spreading. This virus is wreaking havoc on the entire world's population. The education system and the transition from traditional learning to distance learning, which was also the major goal of this study, is a vital subject and a hotly discussed topic. Almost all of the respondents, among others, claimed that online learning is not a long-term answer since it is not deemed the most appropriate technique. Instead, the respondents saw a mixed learning method that includes some regular schooling and some distance learning as a solution. Because of their maturity, a large majority of respondents are unsure about the usefulness of online learning in primary school students, particularly those aged 6 to 10. Students appear to find online learning to be relatively acceptable, since they have no issues using a variety of digital devices to participate in it.

This is the time to reconsider and spend back in children's schooling and well-being in the province. In this respect, the concept of TELE and MARA GAR MARA SCHOOL campaign by the Department of Education Balochistan and UNICEF aims to re-engage children in learning and to reduce the discrepancies that have emerged as a consequence of school days missed. This is a challenge tuning into an opportunity. Severe efforts to unite communities through PTSMCs and LECs, forming WhatsApp instructional groups, and wide-ranging awareness drives made it possible to set up home schools during this tough period. While parents and family members are not inherently qualified instructors, all the rigorous assistance offered by the department and UNICEF in form of content-based video lessons posted in WhatsApp groups has encouraged parents and family members to pursue education for children in a healthy and secure home setting.

The establishment of teleclasses may take into account the development of a learning atmosphere, safety and protection measures, fun play for physical activity, assessment, follow-up, and group learning opportunities for children. The video lessons exchanged in education WhatsApp groups strongly assist the parent's and family members' intervention in teaching approaches that impart information to children. Concepts are taught in a solid, easy-to-understand language easy-to-understand learning is more enjoyable in audio visuals for children. This is obvious to have many positive impacts during this challenging time. Thousands of learners are re-engaged to respond positively while remaining safe and progressing in their studies.

RECOMMENDATIONS

- To improve virtual communication between groups, teachers must be well-equipped and educated for online learning. To do this, educational institutions should allocate more funds to staff training, particularly more commitments and professional development.
- Online learning approaches may receive additional guidance from students/pupils. They might have specific instructions on how to use the internet platforms.
- Governments may use precise rules and regulations to encourage private and public educational institutions in the fight against the COVID-19 epidemic.
- The Government should develop a backup plan, for an emergency situation, and training for each student may be provided to the students.

Corresponding Author's Email Address: gu9464@greenwich.edu.pk

- The government should consider the digital equipment required for online learning and should strive to provide digital equipment (laptop) to every household with children enrolled in schools/universities and who fall into the low-income group.
- The Government should advertise the posts for teachers in Schools, and an IT lab may be provided immediately.
- The IT as course should be introduced in schools, and the teachers with IT skills may be provided professional allowances.
- The Government should ensure electricity and internet connectivity to far-flung areas of Balochistan.
- The education department should also concentrate on offering high-quality education in rural areas, where education levels are extremely low, particularly in isolated locations. If the administration wants the education sector to improve in all aspects, it must begin reforms through the digitalization of education.

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