E-learning Challenges in Pakistan at M.Phil. Level

Sarah Ahsan
Senior Research Fellow,
Area Study Centre for Africa North and South America,
Quaid-i-Azam University Islamabad.
sarahahsan@qau.edu.pk

ABSTRACT

This article explores prospects and challenges of E-learning in Pakistan at the M.Phil. level. Given the emergence of Covid-19 in the year 2020 in Pakistan brought the integration of E-learning/distant learning in our education system; and its practice is not an innovative idea, but its critical application has raised several concerns for the future of academia. Albeit it is the new normal and efforts are being made to make it the vital mode of learning in near future; nevertheless, it has its own shortcomings. This study identifies a few of the challenges: lack of sources, in expertise in technology, English Language, power outage, no standard guidelines from the HEC, no uniform patterns followed by the universities, deception on students' part is also a significant contributor, etc. This research is thus divided into three segments: the literature review; literature drawn probes E-learning in the new era with its pros and cons; and how it is still a challenge in Pakistan to normalize E-learning for future reference. Second is the qualitative analysis of the responses conducted from the M.Phil. students and the faculty of Area Study Centre for Africa, North and South America, Quaid-i-Azam University, Islamabad. Finally, the recommendations gathered from the deduced results and focused group discussions. The study argues the prospects of e-learning by combining the literature with the results and a brief study of Higher Education Commission's role in creating effective strategies for normalizing e-learning.

Keywords: e-learning, Higher Education Commission, M.Phil. Level, Quaid-i-Azam University, Covid-19

INTRODUCTION

E-learning or online mode of learning has significantly evolved in 1990s. However, the 21st century pandemic brought with it rigorous transformations in life including education. The education sector globally adapted the new norm that is e-learning (having no choice). By whatever means possible people adhered to the paradigm shift; being extremely challenging for a few and being user friendly simultaneously. E-learning paved a new way for the future of academia people particularly in Pakistan now observe online teaching during all in-favourable conditions, or to cover distances online is now preferable. This research aims to address the pros and cons of e-learning leading finally to the challenges of this new method that occurred during the lock down period (specifically). It will be discussed under the results and discussions of M.Phil. students and faculties.

Significance of the Study
Studies on e-learning are significantly popular among academics. This study focuses on the challenges that are caused in e-learning, and these are addressed by its users.

Objectives of the Study
- know the significance of E-learning in pandemic times
- review the pros and cons of E-learning for future purposes
- analyze the results and challenges of e-learning
- propose better solutions for both students and practitioners to create a better learning environment

METHODOLOGY

The research is set out to explore the challenges caused by e-learning. The research primarily drew on qualitative methods to gather data in two phases. First, a literature review regarding e-learning and its difficulties in academia. Followed by interviews and focused group discussions with the students and faculty of Area Study Centre for Africa, North and South America, Quaid-i-Azam University Islamabad. The study underwent qualitative analysis. Qualitative research studies people in their contextual circumstances "experiences and behaviour are shaped by the context of their lives, such as the social, economic, cultural, or physical context in which they live" (Hennink et al. 2020, p. 10).

First, a literature review was developed by consulting books, op-eds, blogs, published articles and official websites of academia. The second phase comprised interviews from M.Phil. students and faculty of ASC. Due to the Covid-19 guidelines in person interviews could took not place, therefore structured questions designed for both the interviewees were emailed. Student selection was done on the basis of available course work and research students who had online mode of learning. A total number of ten students were interviewed; limited number of students was enrolled due to Covid-19 SOPs. Altogether, four faculty members were interviewed through pre-decided open and ended questions; and have under gone thematic analysis. "Semi-structured interviews incorporate both open-ended and more theoretically driven questions, eliciting data grounded on the experience of the participant as well as data guided by existing constructs in the particular discipline within which one is conducting research" (Galletta, 2013, p. 45).

Questions were designed around e-learning, effectiveness of e-learning, challenges, and its future. However, an impromptu discussion occurred over e-learning with a group of undergraduate students from Quaid-i-Azam University DSS department. In a similar manner, an official visit was conducted at the Women University of Swabi (March 2022); in pursuance of an online partnership programme. Least attendance was recorded from the participation of the same, therefore the visit focused on addressing the issue. Internet failure issue in the suburban area of Swabi is a principal problem that hinders the participation. Altogether gathered results were thematically analyzed after which results and recommendations were formed.

E-learning

The basic purpose of distant education program is to provide better access to the institution's academic programs for students who otherwise may not be able to fully participate in a program' (Miller, et. Al., 2013). Learning is a process of acquiring knowledge. It is done the either way; in person or virtually. Traditionally, teaching is possible in a classroom setting, and for ages this norm has been practiced. However, teaching out of the classroom environment by utilizing gadgets and internet is e-learning or electronic learning. E-learning is "learning done by studying at home using computers and courses provided on the internet" (Cambridge Dictionary, 2022). E-learning is a web learning process to teach or to deliver lectures to geographically separated students. E-

learning as a tool for enriching learning and teaching facilitates communication between and among the users and instructors involving work submissions and content delivery (Cysewski, 2010, as cited in Qureshi, 2012). Historically E-learning was initiated in the late 1990s, its "roots of e-learning run much deeper; distant education in its earliest forms in the United States" (Miller, et. Al., 2013)

It could be in a pre-recorded video format or a live lecture, but the two are categorized in two sub divisions of e-learning: Asynchronous E-Learning and Synchronous E-Learning. The first does not involve the direct participation of the instructor. It includes recorded videos, lectures, educational games, quizzes etc. The student via his laptop or mobile accesses these. "In this format the instructor and learner do not meet during content delivery and there is no presence, neither physical nor virtual; presence is therefore classified as "No" or not available. (Negash, et.Al., 2008, pg. 4). A similar teaching method is being practiced by COMSATS Virtual Campus Islamabad, Pakistan.

The latter, synchronous e-learning involves direct participation of learners and teachers. It is active in nature; classes or lectures are conducted live, followed by question and answer session. It is a live classroom setting where students are globally dispersed. "In synchronous e-learning the instructor and learner do not meet physically, however, they always meet virtually during content delivery, therefore presence is classified available, or "Yes" (Negash, et.Al., 2008, pg. 4). The usual platforms for teaching are Google classroom, Zoom and Microsoft Teams. After Covid-19 pandemic Pakistan adopted these medium of teaching to continue uninterrupted learning.

E-learning is still touching the summit of its glory with its user friendly traits. But there is still a distance between developed countries and under developed countries to make e-learning a substantial equipment of learning. It is convenient in comparison to in person education, but it has its own requirements. It comes with the usage of several gadgets such as computers, mobile phones, internet, multimedia, etc. It establishes a network of knowledge and wide spreads the transfer of skills and information to a large number of recipients. Earlier, (before its usage became vital) it was not commonly acceptable to teach without the human presence or interaction. Nonetheless, few schools inherited e-learning in relation to their traditional teaching. Practice of using multimedia, tabs, videos, etc. has become a new source of teaching in various institutions.

E-learning significantly became useful after the outbreak of Covid-19 in the year 2019. According to a report by World Economic Forum (YEAR) "1.2 billion children in 186 countries were affected by school closures due to the pandemic. In Denmark, children up to the age of 11 are returning to nurseries and schools after initially closing on 12 March, but in South Korea students are responding to roll calls from their teachers online" (Li & Lalani, 2020). However, Pakistan shifted its teaching mode in March 2020. Since digital learning became the vital mode of teaching for institutes around the globe, several educational institutions (particularly in Pakistan) had to adjust on this new style of teaching.

Online learning provides teachers to effectively carry their classes, likewise due to the pandemic it provided the entire faculty of institutes to provide efficient lessons to their students. During these internet revolution time, online programs has provided unmatched education platform to masses. Since education is a crucial part of our lives; it offers smooth medium of teaching and career development. It offers opportunity to the instructors to equip themselves with virtual learning tools. Teacher with effective teaching methodologies design their lesson plans, prepare lectures supplemented by regular textbooks. The study further adds that incorporation of teaching equipment in instruction can have many obstacles e.g. infrastructure for technology, capability of

pupils, technology approval and enthusiasm of teachers for their use (Surry 2005, as cited in Noreen, Hafeez, 2016).

Though e-learning is convenient, yet its adoption did hinder individuals. It would not be just to deny that our education system did find the new adjustment difficult. Either they were the instructors or students they countered multiple issues each in their own domain, ranging from internet issue to power failure. Overall, Pakistani education system was not prepared for this e-learning blow nor was the Higher Education Commission. Such challenges are the crux of this research paper and will be further elaborated under the results deduced from the findings.

LITERATURE REVIEW

E-Learning in Higher Education

E-learning has primarily flourished in the span of two years that is after the Covid-19 boom. Yet, its vigorous growth was the blessing of the IT sector. The evolution of the Information and Technology department has strengthened the dissemination of knowledge skills at a vast scale. However, E-learning itself offers a variety: "Standalone Courses: Courses taken by a solo learner. They are self-paced. Learning games and stimulations: Learning by performing stimulated activities. Mobile learning: Learning from the world while moving about in the world. Social learning: Learning through interaction with a community of experts and fellow learner" via "social networking, online discussions, blogging and text messaging. Virtual-classroom Courses: Online classes structured much like a classroom course" (Horton, 2012, pg. 2). E-learning itself is a multidimensional entity that caters the need of individuals regarding learning. With the upsurge in the pandemic the world had to strictly adhere to digital learning as an emergency response. Amid the crises the education sectors strived to keep learning running; nonetheless switching to the online mode was inevitable. Teachers had to encounter overpowering challenges. "Support to develop digital and pedagogical tools to teach effectively both in remote and in-person settings" (The World Bank, 2022).

To further enhance the learning experience faculties brought together a variety of methods to make learning intriguing. "Institutions are realizing that properly planned online platforms will allow them to better serve all students, including nontraditional learners" (US News, 2022). A Physics teacher at Rice University took the opportunity to perform physical experiments on campus which he could not do in person (US News, 2022). Initially it was a new and equally difficult experience for individuals to log in to new online platforms. But in the span of two years online to hybrid mode has provided greater accessibility to the users to learn effectively from it. Online teaching methods, has not only addressed the hour of the need, rather it has also broadened its horizon to nontraditional learners. The escaping of geographical boundaries is an unmatched quality of e-learning. People in various spheres of life find this as an opportunity to acquire immeasurable knowledge.

In a blog published by University of London (2020), Cooper argues that Covid-19 not only brought an infectious issue, rather it "worsened equity gaps in higher education and its connection to work" (Cooper, 2020). Effective establishment of e-learning was dependent on location, demographics and broadband and local and national government policies" (Cooper, 2020, para. 2). For instance, Nigerian Universities could not face closure because of connectivity barriers; China swiftly shifted to the online mode of learning because of its technological advancement. Similarly, UK universities already had online programs that further made their online shifting easy. Nevertheless, higher education students with children who also had undergo homeschooling, found online

difficult. After the high time of two years, institutions are working on mixed teachings to reverting to face to face teachings. In a similar university's blog (2020), Christina Howell Richardson writes in favor of asynchronous learning and blended learning. It provides expertise, opportunities and flexibility in the timetable for individuals to attend classes. However, social presence and face to face interaction is undeniably powerful (Richardson, 2020).

E-Learning in Pakistan

In Pakistan, even before the pandemic e-learning was not frequently practiced. With the rise in Covid-19 cases (globally) Pakistan too had to adapt to online teaching methods. As per an E-learning seminar organized by Punjab Information Technology Board, reported that Pakistan ranks 15th in the global ranking where 31M people have internet connections. It also presented a presentation on BLOSSOMS (Blended Learning Open Source Science or Math Studies). It is an initiative founded at MIT (Massachusetts Institute of Technology) by Prof. Richard Larson & Elizabeth Murray. This programme was initially practiced in China when a recorded lecture was played in a classroom. Its vision is to spread knowledge at a larger scale for a larger audience. In Pakistan, with the aim of critical thinking and learning BLOSSOMS is being practiced, primarily by the virtue of Allama Iqbal Open University. Pre-recorded lectures were played in the national TV of Pakistan which brought forth basic lectures for students ranging from grade 1 to 12.

Furthermore, many institutions aligned themselves with various online platforms like Microsoft Teams, Zoom, Skype, and even WhatsApp for a robust e-learning experience. Pre-recorded lectures were available on a variety of subjects with real-life examples. They offered rewind and learning options to the learners. For online exam preparation a wide array of online tools were available, quizzes, MCQs, books, past papers etc. Institutions also equipped themselves with Learning Management System (LMS) for the submissions of assignments (Saeed, 2022). With the spur of the Covid-19 and thrust of uninterrupted learning, Pakistani faculty and students confronted a literal battle. In that case Higher Education Commission of Pakistan monitored the effectiveness and readiness of the universities and launched a report. It must be noted that virtual learning of any institute must be credited as the sole effort of the institute and its management. Initially, HEC did not release any individual guidelines for the academics they were merely the repetition of the said guidelines provided by World Health Organization and Government of Pakistan.

Additionally, in 2019 HEC launched National Academy of Higher Education (NAHE) whose exclusive purpose was to offer quality education by "establishing itself as an apex learning institution that will institute and lead a broader national discourse around the purpose, perspectives and policy in Higher Education" (Higher Education Commission, Pakistan 2019). This particular programme is generating online resources for learning purposes till this date. It includes diversity in lectures, webinars, recorded lectures, tutorials for trainers and learners, globally extracted from international databases and sites.

"Online Academics in Pakistan: COVID-19 and Beyond" (Mumtaz et. al, 2021) cites the menaces posed by the global pandemic to the education system of the entire world; explicitly speaking of Pakistan the challenges were no different than any other developing nation. "Internet is one of the beneficial tools in this era of Information and Communication Technology (ICT) used in academic exercise" (Jibrin MA, et. al., 2019). It is reportedly one of the problematic factors in Nigerian education system; a similar situation is reported especially in the rural parts of Pakistan. Additionally, Native Americans in the United States are the minor community. Despite decolonization their conditions could not get any better. Their underprivileged life conditions got worsened by Covid-19. During an address the president of the Partnership with Native Americans

(PWNA) Josh Arce enlisted an extended list of challenges. From insignificant living necessities to deprived education system. Arce pointed out towards the digital atrocities their community faces. The unfunded schools of the Bureau of Indian Education (BIE) system were already struggling to sustain that Covid-19 further shook them. The bleaker infrastructure was already facing lower staff numbers that digital inequity of the region further obstructed their smooth education (The Guardian, 2021).

Challenges in E-learning
In the year 2012 Qureshi, et. al. published an article "Challenges of implementing e-learning in a Pakistani university" in *Knowledge Management and E-Learning*. Several years back this research highlighted the impediments of e-learning in an under developed country Pakistan. Based on empirical evidence taken from a sample of a private university (Iqra University in Pakistan) Dr. Qureshi brings forth the evident barriers of e-learning; infrastructure, lack of resources, power failure, equipping with technology etc. Lack of maintenance of Information and Communication Technologies is an umber term for several technical problems faced by the students (particularly of Iqra University). It largely involves free access to the internet, uninterrupted supply of power and internet, technical support from the administration that also requires maintenance from the communication and networking department.
Secondly, the research highlights free access to computers; university students all over Pakistan have widely encountered a problem of free access to computers. In past few years, computers were not easily available at homes. Even in libraries time limits had their own constraints. This often caused a momentary pause in studies of the students. Similarly, the target university's students' feedback discusses the same issue.
Thirdly, English competency is a major cause of hindrance in countries like Pakistan. Students find difficult to quip themselves with this language therefore their low self-esteem further lowers their confidence to study English content available on the web. Fourth is the requirement for face to face sessions. Even though e-learning provides a significant comfort level to study in far-flung areas, but it does not offer face to face interaction which often causes lack of personal engagement between students and instructors.
Fifth and sixth correlate with each other; level of awareness and computer literacy. Level of awareness is a skill that comprises computer based knowledge or technical skills. Generally, departments have IT specialists to cater the needs of departmental persons. However, people low on such knowledge find it frustrating to actively participate in web oriented learning. Likewise, computer literacy is the same level of education people have in their respective domains. Yet, not all users are friendly with technology. A similar situation struck in Pakistan right after the pandemic that elderly instructors (in particular) had difficulty in familiarizing themselves with the electronics.
Lastly, the article foregrounds three more challenges: resistance to change, student assistance, privacy and security. The three issues altogether embody the exasperation further caused in e-learning. Resistance to change can be witnessed in both the parties (students and trainers); fear of acquiring novelty can lead to resistance. It is also generally observed that new ideas are intimidating and cause reservation from the masses. Similarly, lack of computer skills and technical incompetence can lead to minor to sever defiance. Student assistance is the department aid provided by the technical staff to the students are not accustomed to IT. This is followed by monitoring and administrating the appliances and equipment for ensuring protection from software malware, identity theft, and sabotaging of the hardware.

In September 2014 Ellahi & Zaka wrote "eLearning and Higher Education in Pakistan: What may hamper it" on online magazine e-Learn magazine. This article though written six years ago before the pandemic struck Pakistan but it also observes the similar challenges this research discusses and the afore mentioned literature review explains too. The article revolves around the role played by Campus Management Solution (CMS) at multiple Pakistani universities like Allama Iqbal Open University and COMSATS, and Learning Management System (LMS) adopted by Virtual University Pakistan. With a noteworthy leap in distant education, AIOU enhanced its e-learning module MOODLE. CMS was widely used by the universities that governed the on campus knowledge including, admissions, administration etc. Its purpose is to serves as the brand image of any university. Similarly, at COMSATS Student Information System software (SIS) has been introduced which connects the teachers to their students and their families.

Overall, Higher Education Pakistan established several platforms to promote e-learning: Pakistan Education & Research Network (PERN), the Pakistan Research Repository (PRR) and a digital library program. Nonetheless, challenges still hamper smooth sailing of e-learning. Albeit of expanding e-learning nationwide, HEC is striving effortlessly but issues like old infrastructure, lack of computer skills, electricity failure, internet access, etc. are all principal matters to be addressed.

The research by Ellahi & Zaka divides the concerns into four levels: institutional level, teacher's level, curriculum level, and student level. At the institutional level it is great deal of a task to encourage the employees to accustom themselves with latest technology. Similarly, it is equally difficult to afford a software in a limited budget. "Cost-effectiveness and institutional commitment are factors that contribute to the institution's ability to sustain its commitment to an online learning program over time" (Miller, et.al, 2013). In such cases, universities look up for support from the HEC. From fiscal to technical assistance institutes rely on the assistance from the HEC.

Likewise, at teachers' level which amalgamates with curriculum level, teachers find integration of e-learning challenging. Often the courses are designed in a non-electronic method. A sudden combination of traditional learning and e-learning causes technophobia in the teachers. Some teachers resist the usage of internet in their learning, followed by training of other technicalities. They also find it time consuming, while others remain skeptic about its utilization if not technophobic. With this, teachers resonate between two modes of learning synchronous and asynchronous. The hybridity causes massive level of obstruction, as curriculums are designed according to their respective modes. Subjects like chemistry, biology cannot be covered in an online mode due to their practical lab works. Lastly, the curriculum development is a matter of huge concern and cannot be conducted in hybridity. This pedagogic paradigm shift must be taken seriously by HEC if implementation of e-learning across Pakistan is the utmost desire.

In 2016 Noreen & Hafeez published an article titled "Challenges of Digital Learning For Distance Universities of Pakistan" of a similar context. Repeatedly, researches have been conducted on distant learning with a combination of digital learning in two prominent universities of Pakistan that offer distant learning, Allama Iqbal Open University and Virtual University Pakistan. These two institutes offer a variety of courses for distant Pakistani students however, concerns regarding e-learning result the same. The research narrates the similar challenges confronted by other researchers in the aforementioned literature review. The literature review is evident that Pakistan being an under developed nation is striving for a complete digital education system. Challenges like network and power failure lurk around. Similarly, technophobic generation is an equal barrier for promoting digital or e-learning. Their constant resistance to accept technology for their better functionality causes enormous deal of struggle to create a paradigm shift. The traditional

pedagogies of teaching initially did not have materials drawn from the web. With the dawn of modernity people and pedagogies shifted to new modes of learning. One such example is of the wide usage of internet, up gradation of resource material, etc. The researchers mention the ideal situation if distance learning is completely electronic based. For instance, recorded lectures can save time from face to face sessions as most distant learning students are from far flung areas. Also, huge fiscal conservation can be made if printable books are replaced by smartphone data, and it will also save the postal delivery cost.

Elaborated on the thematic analysis, the article divided the challenges into competency, aces to diverse sources including technology, followed by technical skills of faculty and students, and lastly the affordability of the internet and the gadgets. Speaking of the tech industry of Pakistan a research was conducted by Economics and Management experts of Karachi's institute. Their survey had samples from Karachi 78.7% people had personal device, 13.4% bought a new device for the online classes, 7.3% individuals rented or borrowed from someone. It implies that the tech or electronic industry generated a revenue of 20.7% approximately; PKR 860,733 (USD 5370). More than 50% of the people due to these expenses rejected the idea of online learning for future references. Considering the boom in electronic industry of Pakistan, a minor role is played by Karachi residents (Mansoor, et. al. 2021).

"E-learning: The New Education Norm for a New Normal" on Higher Education Digest an online education magazine got published in 2020 when the pandemic was at the summit. An Indian website Goal2Learn, 2020; Rathod speaks up for the Indian community's shift to the e-learning mode. With the progressing new age e-learning has grown. The robust of technology has made it convenient for teachers and professors to deliver lectures worldwide just across their screens. As opposed to traditional learning it is pocket friendly and bares minimal cost of books etc. He also hails the efforts of teachers for shifting over nightly to the new mode of learning. However, he raises similar concerns like Pakistan's regarding power failure, poor infrastructure, interrupted internet connectivity, accessibility to tools etc. Earlier electronic sector was treated as a supplementary material but Covid 19 pandemic has made it a mainstream medium of learning. Despite e-learning has become the new normal, but in the end he suggests that the IT sector should be expedited its dispersal so that the education system of the country is redefined and education must reach all the masses.

According to World Economic Forum report published in April 2020, globally virtual learning was being practiced in various forms: apps, videos, soft wares, live session, etc. After the pandemic the global shift to digital learning created its own mayhem. Resourceful countries managed online swiftly, but under developed nations were affected. For example, whilst 95% of students in Switzerland, Norway, and Austria have a computer to use for their schoolwork, only 34% in Indonesia do, according to OECD data (Li & Lalani, 2020). Similarly in the United States under privileged children found it difficult to cope up with the online learning. The report highlights the effectiveness of e-learning that is only possible via excellent resourcefulness. The pandemic has taught us that dissemination of knowledge is vital and has to ace all barriers and boundaries. The e-commerce sector has seen an impeccable boom during the pandemic times, this points to the rise of the digital learning. We as a global community need to learn the full potential of Information Technology to equip ourselves with updated knowledge, and to be prepared in advance to overcome such shortcomings.

Role of HEC

The Higher Education Commission of Pakistan is a regulatory body developed under the chairmanship of Dr. Atta ur Rehman. Its main purpose is to serve and facilitate the universities of Pakistan. Funding, administrating, developing knowledge, digitalization, promoting research are the principal duties of the HEC. In the perilous times of the pandemic the entire world was in jeopardy. To minimize the worsening effects and to prevent dwindling of the education sector HEC shifted its concerns over normalizing e-learning; its support for digital library is one such initiative. To make online learning the mainstream learning mode HEC sought services from the universities. Nevertheless, the first lock down brought severe criticism from the masses; people did not understand the sensitivity of the times and demanded either vacations, or no online classes. As difficult times call for different measures therefore considering digital learning was the only available option (HEC, Pakistan 2020).

With the surge of the global pandemic in Pakistan HEC is still working on appraising its role. HEC held a meeting with various universities' vice chancellors to discuss the appalling conditions of the education system during the pandemic time. The meeting navigated under the government's directive; it was mutually decided that case of extreme circumstances universities will face complete closure for two weeks, followed by further closure if circumstances worsen. Further, it was also stressed that academic activities should not be disturbed; online to hybrid mode of teaching would be followed. Teachers were advised to familiarize themselves with LMS (Learning Management System), review their course content and devise lectures accordingly. Flexibility in delivering of lectures was also requested from the faculties. It was suggested that teachers must record their lectures for students who cannot follow the synchronous mode of learning. Formation of social groups and usage of every possible social media platform was encouraged.

Currently HEC is working on providing internet bundles to students, arranging software, curating online materials and training programs, building a data repository, providing guidance on quality enhancement, and setting up and adapting monitoring and evaluation systems. During these unsafe times HEC has announced Continuous Professional Development (CPD) courses. It is a parallel run programme that offers a Computer Assisted Language Learning (CALL), Testing & Evaluation, Research Methodology and Skills, Androgogical/Pedagogical Skills; and Open and Customized Programs in ELT related areas (EAP, ESP,ESL, ELT) (HEC, Pakistan, n.d). These courses will ensure state-of-the-art technological knowledge for college and university teachers, for a progressive future.

ANALYSIS

The qualitative research primarily focuses on the students of Area Study Centre for Africa, North and South America, Quaid-i-Azam University, Islamabad. They were divided into course work students and research students. It should be noted that that the total number of response collected is from 10 M.Phil. students due to the availability of lesser number of students in the Centre. The pedagogical effectiveness is an integral role of the teacher. They put in profound efforts to make learning extremely effective. They are often crafted with a wide variety of online activities and relevant resources (HEC, Paris).

Moreover, Covid-19 and online education has been a global experience. United Nations reported several events from field work reporters. UN Information Service in Vienna reported a collective experience received from the students of grade 7 Vienna. They reflected on the new experience of learning at home that involved their parents too. They missed their classrooms and their in-person

experience. However, as per UN's Sustainable Development Goals education delinquency can never occur, hence they offered teachers and students activities to indulge everyone. Students were asked to draw the world they imagined post-pandemic, they were also asked methods to end the disease (United Nations).

Further, on inquiring about the effectiveness of e-learning a combined response was received from the students. Students in favor of e-learning considered it time saving and were privileged enough to afford the technicalities. Those who disapproved of e-learning faced internet or power failure issues followed by financial burden to afford the accessibility of laptops or computers, internet devices, excessive data bundles and understanding. "Online learning programs need reliable financing mechanisms for sustainability and growth" (Miller, et.al. 2013). Similarly, understanding can be the gravest difficulties in digital learning that can be caused by the multiple challenges as discussed above. These responses were based on fifty-fifty response of the students. Another questions posed were teacher oriented in relation to e-learning. The majority of the responses lauded the teachers' role in handling e-learning with extreme readiness to use electronic resources. "It is the e-teacher who "becomes an expert learner," who can help students solve problems and find answers to their questions" (Harrison, n.d, p. 3, as cited in Pushpanathan, 2012). It must be noted that Area Study Centre has only 5 faculty members who are well trained to handle hybrid modes of teaching; (only 4 have been interviewed). The administration allows them to conduct classes out of the university premises else it would have been extremely difficult to conduct online teaching due to insignificant resources to run uninterrupted internet in the non-supportive building.

Further, for both course work and research students a similar question was asked about the teachers' response to address their queries, due to the above mentioned qualities the instructors were capable of responding to the students on time. The research scholars had scheduled online meetings via emails. Apart from this, the basic mode of communication was emails that were promptly addressed by the faculty because they had access from their homes.

In the light of the above data analysis, it is observed that e-learning is a demanding entity. It requires smooth flow of the internet, with a powerful light supply to support its significant supply. Our timeworn buildings are not fully equipped to cater such needs; therefore access to internet is generally done in a private or personal capacity. Generally Pakistan's minor communities (minorities in terms of little or no access to the digital media) have a comparison with the minor community of Native Americans in the United States. The Harvard Gazette's special Covid-19 issue (2020) highlights the miseries of the Native Americans. Their prime source of income was Hualapai's tribe Skywalk at the Grand Canyon. Lately, much of the economic burden has been tolerated by the Native American government to generate their own revenues. The pandemic brought its own mayhem and double displaced the Native Americans. Socially, economically these tribes are marginalized and do not have access to the greatest opportunities and standard American living. Given, the education sector too came under the pressure of Covid-19. Researchers at Kentucky School who were working on the living conditions of the Native Americans often spent time with them during their summer break. These students reflected the underprivileged conditions of these people. Excessive help was requested from the federal government to tackle health and educational cases. Similarly, the lower Pakistani strata also sought help from the federal government to curb Covid-19 cases and deal with daily issues.

Additionally, on interviewing the faculty a collective response was received from them. They found e-learning teaching comparatively easy in terms of flexible schedule as it curbed down the commuting time. However, they lacked face to face sessions that strengthens the interaction as

body language is an integral component of teaching. Since the Centre lacked resources therefore the faculty managed the teaching on their own due to lesser number of students. The focused group discussions indeed highlighted the impediments in internet connectivity. It must be noted that students often discussed their views regarding dishonesty during online exams. Online exams do not guarantee a successful learning of a course as students find various methods to plagiarize. Yet, some suggestions are advised to be followed for a better e-learning environment.

- Constantly review the online teaching methods.
- Receive guidelines from Government of Pakistan
- On the basis of the data received they have generated an Online Readiness report which must be maintained for the betterment of the universities.
- A uniform pattern for online education should be devised for future purposes

CONCLUSION

The results deduced after compiling the data, thematically analyzing the literature review and results the research concludes that regardless of e-learning being the new normal, it is still not effective for a larger audience. Technical difficulties like internet and power outage is a major problem in Pakistan. Followed by lack of expertise in the IT sector; accessibility to resources is another common cause that makes e-learning a failure, altogether they obscure understanding. Moreover, we lack technology free infrastructure. Being hi-tech is a desirable condition in Pakistan but it comes with its own cost that our institutes cannot afford, especially government institutes. Therefore, our institutes have to build technology friendly infrastructure where online teaching becomes a mainstream medium. E-learning should be taken as a paradigm shift, instead of just a teaching method. In this regard, HEC needs to continue the process of updating the E-learning teaching, even after the pandemic. HEC must introduce a standard criterion for E-learning. Our institutes must have technological assistance available at all times (software up gradation, support staff, internet connections etc.); this is also not possible without the assistance of HEC since local universities are predominantly financial dependent on the government.

Pakistani education system must also seek aid from United Nations to better work on Sustainable Development Goals 2030; their activity based learning strategies can be infused in our academic system. A social academic network of Pakistani universities with international universities can be equally supporting. Our individuals must also learn to embrace technology to tackle similar situations in the future. Nor just this, relevant situations like political instability in the country like Pakistan is normal practice, this often leads to the closure of institutions; being familiar to IT can help in continuation of education. This will over lead to a stable literary trajectory of Pakistan.

REFERENCES

Cooper, A.L., (2022, Aug 12). The new normal of online learning in a post Covid-19 world. *University of London*. https://london.ac.uk/news-opinion/london-connection/q-and-a/online-learning-post-covid-19

Donnelly, R.,& McSweeney, F. (Eds.). (2009). *Applied E-Learning and E-Teaching in Higher Education*. Information Science Reference. https://books.google.com.pk/books?id=VMA0-Ho6plIC&printsec=frontcover&dq=elearning&hl=en&sa=X&ved=2ahUKEwiUksud0LP2AhVnSfEDHbvJCV0Q6AF6BAgGEAI#v=onepage&q=e-learning&f=false

E-Learning Seminar. *PITB*. (n.d.). https://pitb.gov.pk/elearning_seminar

Ellahi, A., Zaka, B. (2014, September). ELearning and Higher Education in Pakistan: What may hamper it. *e-Learn Magazine*. Retrieved January 25, 2022, from https://elearnmag.acm.org/featured.cfm?aid=2668882.

Fitzgerald, M. (2022, Feb 15). How Online Learning Is Reshaping Higher Education. *U.S. News*. https://www.usnews.com/news/education-news/articles/2022-02-15/how-online-learning-is-reshaping-higher-education

Galletta, A., & Cross, W. E. (2013). *Mastering The Semi-structured Interview And Beyond From Research Design To Analysis And Publication*. New York University Press. 18574/nyu/9780814732939.001.0001

https://books.google.com.pk/books?id=KpAUCgAAQBAJ&printsec=frontcover&dq=semi+structured+interview&hl=en&sa=X&ved=2ahUKEwiiw6m-7OD2AhUASvEDHZqOC1cQ6AF6BAgHEAI#v=onepage&q=semi%20structured%20interview&f=false

HEC. (2020). HEC Policy on COVID-19. Islamabad. *Higher Education Commission, Pakistan*.

http://dadabhoy.edu.pk/wp-content/uploads/2020/03/HEC-Policy-on-COVID-19-1_73136.pdf

Horton, W., (2012). *E-learning by Design*. Pfeiffer. https://books.google.com.pk/books?id=3EXIYh-2TXYC&printsec=frontcover&dq=e+learning&hl=en&sa=X&redir_esc=y#v=onepage&q=e%20learning&f=false

Isaias, P., Sampson, D. G., Ifenthaler, D. (Eds.). (2021). *Online teaching and learning in Higher Education*. Springer Nature.

Issani, M., Imran, A. Shahana, K., Syed, H.A., Waliya,F. (2021). Students' Behavior towards Electronic Devices during Covid-19 in Karachi. *Journal of Research (Science)*. Vol. 26-27, No. 1-4. Pp. 8-17. 10.13140/RG.2.2.18919.98722. URL https://www.researchgate.net/publication/351081963_Students'_Behavior_towards_Electronic_Devices_during_Covid-19_in_Karachi

Jibran, A., M., (2017). Effects Of Internet On The Academic Performance Of Tertiary Institutions' Students In Niger State, Nigeria. *International Journal of Education, Learning and Training*. Vol. 2 (No.2), DOI: 24924/ijelt/2017.04/v2.iss2/57.69. www.ftms.edu.my/journals/index.php/journals/ijelt

Li, C., Lalani, F. (2020, April 29). The COVID-19 pandemic has changed education forever. This is how. *World Economic Forum*. Retrieved January 26, 2022, from https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/

Miller, G., Benke. M., Chaloux, B., Ragan, C. L., Schroeder, R., Smutz, W., Swan, K. (2013) *Leading the e-Learning Transformation of Higher Education: Meeting the Challenges of Technology and Distance Education*. Stylus Publishing. https://books.google.com.pk/books?id=6jeFAwAAQBAJ&printsec=frontcover&dq=e-learning+challenges&hl=en&sa=X&ved=2ahUKEwjDsM6A1LP2AhWBzYUKHblkBFEQ6AF6BAgLEAI#v=onepage&q=e-learning%20challenges&f=false

Mineo, L. (2020). "For Native Americans, COVID-19 is 'the worst of both worlds at the same time'". *The Harvard Gazette*. Retrieved November 24, 2022, from. https://news.harvard.edu/gazette/story/2020/05/the-impact-of-covid-19-on-native-american-communities/.

Mumtaz, N., Saqulain, G., & Mumtaz, N. (2021). Online Academics in Pakistan: COVID-19 and Beyond. *Pakistan Journal of Medical Sciences*, 37(1), pp. 283–287. https://doi.org/10.12669/pjms.37.1.2894

Noreen, S., Hafeez, A. (2016, June). Challenges of digital learning for Distance Universities of Pakistan. *ResearchGate*. Retrieved December 30, 2021, from https://www.researchgate.net/profile/Sidra-Noreen-3/publication/342277714_CHALLENGES_OF_DIGITAL_LEARNING_FOR_DISTANCE_UNIVERSITIES_OF_PAKISTAN/links/5eeb83aa458515814a67a7ca/CHALLENGES-OF-DIGITAL-LEARNING-FOR-DISTANCE-UNIVERSITIES-OF-PAKISTAN.pdf

Oladipo, G. (2021, Dec). Native American communities lashed by Covid, worsening chronic inequities. *The Guardian*. https://www.theguardian.com/us-news/2021/dec/13/pandemic-challenges-native-american-communities

Online Programs. *HEC Paris*. (n.d.). https://www.hec.edu/en/online-programs

Online Resources on Teaching and Learning. *Higher Education Commission Pakistan*. (n.d.). https://hec.gov.pk/english/services/faculty/NAHE/Pages/Online-Resources.aspx

Pushpanathan, T., (2012). The Role of a Teacher in facilitating E-Learning. *Journal of Technology for ELT*. Vol. II No. 2, pp. 1-4. https://www.researchgate.net/publication/224946774_The_Role_of_a_Teacher_in_facilitating_E-Learning

Quality in Covid-19 Situation. *Higher Education Commission Pakistan.* (n.d.). https://hec.gov.pk/english/services/universities/QAA/Pages/Online-Education.aspx

Qureshi, I. A., Ilyas, K., Yasmin, R., Whitty, M. (2012, September). Challenges of implementing e-learning in a Pakistani University. *ResearchGate*. Retrieved December 26, 2021, from https://www.researchgate.net/profile/Robina-Yasmin-2/publication/279717200_Challenges_of_implementing_e-learning_in_a_Pakistani_university/links/5db6c9a34585155e270bab33/Challenges-of-implementing-e-learning-in-a-Pakistani-university.pdf mention journal/issue

Ranjha, A.,S.,M., (n.d.). *E-learning* [PowerPoint Slides]. https://pitb.gov.pk/system/files/e_learning_final.pdf

Rathod, J. (2020, November 5). E-learning: The New Education Norm for a New Normal. *Higher Education Digest*. Retrieved December 5, 2021, from https://www.highereducationdigest.com/e-learning-the-new-education-norm-for-a-new-normal/.

Remote Learning During COVID-19: Lessons from Today, Principles for Tomorrow. *The World Bank*. (2022). https://www.worldbank.org/en/topic/edutech/brief/how-countries-are-using-edtech-to-support-remote-learning-during-the-covid-19-pandemic

Richardson, H. C., (2020, May 04). The loss of the lecture? Imagining a post Covid-19 world. *University of London*. https://london.ac.uk/news-and-opinion/centre-distance-education/loss-lecture-imagining-a-post-covid-19-world

Saeed, M., (2022). How E-Learning is Being Used in Pakistan. *Education*. https://vocal.media/education/how-e-learning-is-being-used-in-pakistan

What is e-learning? Association for Talent Development. (n.d.). Retrieved January 26, 2022, from https://www.td.org/talent-development-glossary-terms/what-is-e-learning

Why Online Education? (Chairman, HEC). *Higher Education Commission, Pakistan*. (2020, April 04). https://hec.gov.pk/english/HECAnnouncements/Pages/Why-Online-Education.aspx