Covid-19 Pandemic Shutdown: Challenges of Hei's Electronic Support Services in Teacher Education Programs

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Abstract

Coronavirus 2019 (COVID-19) is the result of acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Pandemic is the outburst of any disease worldwide. Electronic Service (E-service) is based on technology and provides different electronic channels i.e. e-learning & coaching (online learning), e-library, etc. This study was design to explore challenges of HEI's electronic support services in teacher education during pandemic shut down of COVID-19. The objectives of the study were to explore the challenges of e-support services in teacher education programs due to pandemic shutdown of COVID-19 and to propose a framework for stake holders of HEI's e-support services. This study was descriptive and the survey method was used. Teacher education program B. Ed (1.5 Years) from two universities of Pakistan, one from formal mode and one from distance education online mode were selected and all the prospective teachers of 2nd semester were defined as population of the study. Sample of the study consisted of 150 students (selected conveniently). An online questionnaire was used as tool for data collection which had 15 close-ended statements on 5- point Likert scale. It was concluded that the facility to purchase internet bundles was not available to students in the pandemic shutdown of COVID-19. The students and academia on the other hand were not trained for online teaching learning procedures. It was proposed that HEI's may arrange internet bundles with collaboration of internet provider companies to students, academia and institutions also focus to train academia and students for online education because the effect of COVID-19 Pandemic Shutdown are expecting a change in future procedures of education till the situation is not going to be seen normal.

Keywords: COVID-19, Pandemic Shutdown & Electronic Support Services, online teaching, e-learning, distance education

1. Introduction

Electronic Service (E-service) is based on technology and provides different electronic channels i.e. E-learning & coaching (online learning), E-library, etc. Revolution in Information and Communication Technology (ICT) guides us toward great variations in all the fields of life

(Kumbhar, 2012). Some people have attended to the delivery and infrastructure of delivery which is also known as digital networking; however, some of them focus on the process of delivery and the benefits of e-service (Hofacker, Goldsmith, Bridges, & Swilley, 2007). Scupola (2008) denoted three key features of E-service as, available with the help of the internet, consumable directly or indirectly by internet or alternate networks electronically and service provider charge fee from consumers. Electronic Learning (E-learning) referred to the utilization of electronic technologies to approach material related to education. It may be material related to any program, degree or course of study that can be completed online (Salamat, Ahmad, Bakht, & Saifi, 2018). E-service has a great impact on support services in Higher Education Institutes (HEI's) especially in non-formal system and situations where some break occurs in formal classes due to any reason.

Support Services (SS) in HEI's are of much importance as they help the learners with purposive experience of learning (Gil-Jaurena, 2014). According to Garrison & Baynton (1987) as cited by Salih, (2004), these services can support different facilities in carrying out or completing the process of learning in educational process. Support Services are the mixture or combination of societal and machine-related resources in the transaction or the facilitation in the process of education. They are the support of media and software's, the facility of the library, leaders from the community, socio-economic support, financial support and the most important teacher/tutor who always direct and aid the students to meet their goals (Salih, 2004).

Student Support is always an important part of the responsibility of HEI's professionally. Recent decades showed that institutions made great consideration in this respect because Quality Assurance Agencies (QAA) of Higher Education declares it as an important audit area (Bartram, 2009). Providing help related to education is the main function of support services. Importance of Support Services is crystal clear, and nobody can reject or ignore the prominence of the services in HEI's. The success of the process of learning depends on the involvement of his learner. The effectiveness of any institution depends on the involvement of its customers, so it uses different services to involve them as a multi-media mix or e-services. From the help of these services, learners communicate with each other and have access to unlimited information related to the subject matter (Ahmed, Naoreen, & Hafeez, 2009). When part of the world or country caught in some specific circumstances like natural disasters or spread out of diseases, Support Services got more importance. In that case, the formal process of teaching and learning affected due to specific

conditions. Present study discusses the Covid-19 pandemic shutdown: challenges of HEI's E-support services in teacher education programs.

1.1. Background of the Study

Pandemic is the outburst of any disease worldwide. History of disease outbreak is as older as the history humanity itself. Diseases, many times change the sequence of the human civilization. An epidemic "Prehistoric" wiped out Chinese prehistoric village more than 5,000 years ago. During the war between Athens and Sparta around 430 B.C., "Plague of Athens" was spread out due to which, healthy people suddenly attacked by redness inflammation in their eyes and fierce temperatures in their heads. Throat and tongue became bloody and the problem in breath was also noticed. In 165-180 A.D., about 5 million people were died due to a disease like smallpox called "Antonine Plague" (Hanes, Brown, & Hansen, 2017).

After that "Plague of Cyprian" in 250-271 A.D., killed almost 5000 people in Rome alone. About 10% of the world died due to "Plague of Justinian" in 541-542 A.D. A disease named as "Black Death" was the cause of estimated Europe's half of the population's death in between 1346-1353. The infection named "Cocoliztli Epidemic" was a viral fever that killed 15 million people of Central America and Mexico. In the 16th century, "American Plagues" was Eurasian disease causes smallpox in the people of Inca and Aztec civilizations and 90% population of the Western Hemisphere brought to death (Jarus, 2020).

In April 1665, "Great Plague of London" spread rapidly by the hot months of summer and about 100,000 people died including 15% of the population of London. The "Great Plague of Marseille" was spread out in France from 1720 to 1723, in which 30% people of Marseille city died. A total of 100,000 people from Marseille city and surrounding areas died in 3 years. The "Russian plague" 1770-1772 killed more than 100,000 people from Moscow and surrounding areas. An "American Polio Epidemic" started in New York in 1916 and instigated 27, 000 cases and 6,000 in the USA, the main target of the disease were children. A predictable number of 500 million people from the North Pole to the South Sea witnessed from "Spanish Flu" from 1918-1920. Influenza that was spread from China was "Asian Flu" from 1957-58 known as the global pandemic, which was the cause of the death of about 1 million people (Viboud, Simonsen, Fuentes, Flores, Miller, & Chowell, 2016).

Acquired Immune Deficiency Syndrome (AIDS) was known as "AIDS Pandemic and Epidemic" was invented in 1981 and is vulnerable till today, it is the cause of the death of 35 million people all around the world. (Rettner, 2020). In 2009-10, "Swine Flu Pandemic" was the result of the virus H1N1 originated from Mexico and caused about 575,400 people's death. Ebola Pandemic is known as "West African Ebola epidemic" from 2014-16 caused about 11325 deaths was firstly reported in Guinea. The "Zika Virus Epidemic" from 2015 to present-day mainly spread from South and Central America cause health issues in infants (Lowe, Barcellos, Brasil, Cruz, Honório, Kuper, & Carvalho, 2018).

Coronavirus 2019 (COVID-19) is the result of acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was seen first time in Wuhan, the capital of China's Hubei province during December 2019 and now viral worldwide. It causes coronavirus pandemic 2019-2020. Near about 67,780,361COVID-19 cases identified in almost 210 countries of the world, 1, 551, 214people were dead and about 1,283,477people recovered reported by media sources as of 9[th]December, 2020. Health emergency was declared by the World Health Organization (WHO) on January 30, 2020, and on March 11, 2020 as pandemic World (Health Organization 2020). Educational community worldwide will remember March 2020 as about 90% of students from the world were affected due to the COVID-19 pandemic as almost 185 countries closed their educational institutions from schools to university level. As a result, students' current semester was affected badly.

In Pakistan, educational institutions were closed due to COVID-19 pandemic. Annual exams of different classes were in progress but they were cancelled. Government of Pakistan closed all educational institution including schools, colleges, and HEI's across country till May 31, 2020. Higher Education Commission (HEC), directed all Higher Educational Institutions (HEI's) in Pakistan to start online classes in order to avoid students from educational loss due to staying at home in pandemic COVID-19 shutdown. Notification was issued by the HEC to all HEI's to use their electronic support (E-support) services to conduct online classes. Furthermore, HEC advised the institutions with less or no E-support services to buy modern technologies and conduct staff training urgently. Chairman HEC, Tariq Banuri on March 18, announced that HEC will establish a data base for online resources and will share it with HEI's (Xinhua, 2020). Therefore, this study was conducted to evaluate the E-Support services for higher education during

pandemic shutdown of COVID-19 and explore challenges for higher education institutions to meet the needs of academia and students for the aim to provide effective teaching and learning situation.

A review of literature regarding implementation of electronic teaching strategy indicates that decision makers need to overview the conditions before deciding and implementing electronic way of teaching. The system of online education needs following support services for educators and learners to play their roles in e-learning process.

1.2. Computer and Its Components

Computer is the basic need for e-learning. Computer with a huge memory with different hard drives is necessary. Maximum RAM (random access memory) and processor with high speed or CPU is also mandatory, according to experts a post-2000 processor (e.g. Pentium IV or Celeron II) may be necessary with minimum 512 Gigabytes memory. In addition to that monitor and other necessary components of computer are necessary (Higashino, Hayakawa, Takahashi, Kawamura, & Sugahara, 2013).

Mobile Device

According to Caudill, (2007), Mobile is also a helpful device in e-learning. It allows learners to work at any place and any time as due to its low weight and ease of mobility. One can use mobile for learning management system, to receive and respond emails and instant messages, update social networks and to download or upload PDF, MP3 and video lectures. Mobile is also used to upload or download PowerPoint presentations, photos and e-portfolios.

Microphone/Headphone/Speakers

Mahfouz, & Ihmeideh, (2009) stated that to record or to listen any message or conversation, microphone, headphone and speakers are necessary. Soundcard is also necessary to attach these devices with the computer. To listen private message, headphone is helpful. Microphone allows to do conversation or to record voice in audio or video clips.

Scanner /Printer

Scanner and printer are also important for e-learning process. These are necessary to print or to scan any document for students or for management purposes (Masoumi, & Lindström, 2012).

Operating System

According to Gaeta, Orciuoli, & Ritrovato, (2009), operating system is the back bone of the e-learning as no computer can be used without operating system. So, up-to-date operating systems are the basic requirement of e-learning. Windows XP, 2000, NT, or 98 are used for this purpose as they are very user friendly. But for users who have Mac can use operating system 8.1 or higher.

Internet

Internet is basically a network system that connects computers on a large scale. It is the basic requirement to start e-learning program at any level. Any institute who want to start e-learning may have good internet connection with maximum speed (Wang, 2011).

E-mail

Mortera-Gutiérrez (2006) believed that E-mail is a much needed and necessary component of e-learning as it is the basic source to communicate with the faculty and students. It is almost free and everybody can use it easily. But institutions may develop their own e-mail attached with the main system.

Microsoft Office

To write reports, projects or to prepare flowcharts, presentations, to prepare spreadsheets and data analysis, Microsoft Office is the most suitable and user friendly software that contains, M.S World, PowerPoint, Excel etc. (Lu, Gao, & Li, 2020).

Adobe Acrobat (Professional)

According to Speare, (2018), to create or to open already saved PDF files, this software is necessary.

Media and Flash Players

To conduct effective conduct of e-learning, media players and flash players are also necessary as in e-learning, audio or audio and video streaming is necessary. These all programs are user friendly and easily available or downloaded freely form different websites (Turchet, Fischione, Essl, Keller, & Barthet, 2018).

There is a long list of software those are important and essential for e-learning. Some of them are as under:

- Audio Recording Software

- Movie Editing Software

- Math/Engineering Software

- Graphics Editing Software

Bakia, Shear, Toyama & Lasseter, (2012) stated that the following are the basic needs for the online or electronic learning.

Broadened Access: Access is important for any system to implement it effectively. Education system is the backbone of any Nation. So, by providing access via online or electronic learning can reduce the cost of the quality education. It is much import especially for those students those are living in remote areas or working to support their family. It is also helpful in other situations like in improving enrollment of students etc.

Engagement of Students in Active Learning: By the help of online learning, it is very easy to access the resources those are important in the process of teaching and learning like instructional material, methodologies, soft material etc. Access to the students of the same subject from across the country and to educators of the world engages students effectively and actively that may increase the interest of the students in the program of their learning.

Individualized and differentiate Instruction: By the help of modern technology students can be diagnosed by their performance with the help of diagnostic tests and also their ways of learning. In this way, by research and development, student's efficiency can be improved.

Personalized Learning: As it is necessary to train the educators to use material and methods according to the interest of the student, so they can build the material those can motivate the students and increase their better learning outcomes. In online or electronic learning the material or method used by the faculty may be selected or developed to provoke individual learning of the students.

Better utilization of time: It is very easy to adjust the learning schedule and experience according to the availability of the faculty and students. Students also have the facility to use recording of the lectures if they missed the lecture due to any reason. Faculty members can record

their lecture prior to the time of their delivery. So, by online or electronic learning it is easy to make better use of the time and resources.

Increment in students learning: As motivation is an important task to enhance students learning, it is necessary that the online or electronic resources may be developed to motivate the students to help students in by increasing motivation and helping students to understand the concepts and also enforce them to polish their skills effectively.

Reducing Cost of Institutional Facilities: In online or electronic learning**,** it is very easy to engage many learners at a time. So, it is a way by which the cost of the facilities provided by institution can be reduced and can be used effectively if the faculty has resources and equipped with necessary skills and resources.

Conceptual Framework of the Study

This study was designed to assess the importance of E-support service of HEI'S in pandemic shutdown of COVID-19 in perspective of teacher education program. So, the main objective of the study was to analyze availability of resources regarding E-Learning based support services. It is well known fact that resources are the key components of any program for the successful implementation and completion of the program. Technical skills are the basic skills that are necessary for learners as they prepare them for future jobs and field work and are required during the program. Interpersonal skills are the skills those may be learnt by time and are the part of lifelong learning process. Many factors influence interpersonal skills and the performance can be affected. In this study, an effort was made to check the influence of resources, technical skills and interpersonal skills on each other in a cyclic process as shown in the diagram below:
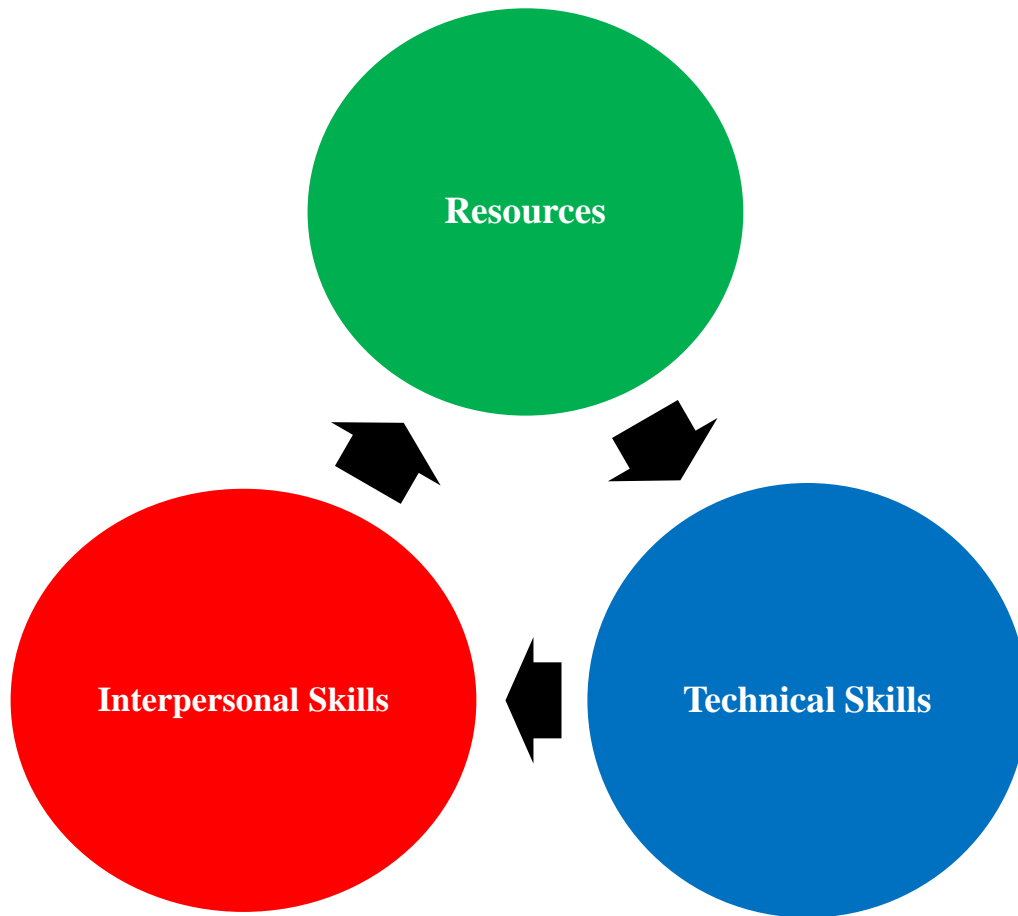
Figure1: Conceptual frame work of the study

1.3. Statement of the Problem

The announcement of breakdown in continuation of academic activities in formal education due to pandemic shutdown of COVID-19has created a novel situation for educators and learners to meet their targets related to educational process. The decision of Higher Education institutions to continue academic activities using online mode has created a challenging situation for educators to meet the requirement of assignments for saving academic loss of students. It is a fact that formal mode of education and online mode of education require different procedures and support services. Teachers of formal and online mode requires different skills of teaching. Institutions establish their teaching procedures according to support services provided to teachers and students by the institutions. Therefore, efforts of higher education institutions to continue their academic activities using online mode has indulged students, teachers and institutions to severe problems. Present study was conducted with the aim to analyze the available services of online education in higher education institutions and sort out the challenges for higher education

institutions regarding online support services. The ultimate urge of the study was to prepare guideline for higher education institutions and other stake holders to take necessary steps to facilitate the learners of hard areas to get benefits from online classes and E-support services.

1.4.   Objectives of the Study

Following objectives were framed for this study:

1. To analyze availability of resources regarding E-Learning based support services.
2.   To analyze shortfalls in technical and interpersonal skills of academia and students regarding E-Learning based support services.
3. To explore the challenges ofE-learning support services in teacher education due to pandemic shutdown of COVID-19.
4. To propose guidelines for stake holders of higher education institutions.

2.   Research Methodology

This study was descriptive in nature and survey method was used. Keeping in view the time and financial resources constraints, this study was delimited to second semester students of B. Ed. (1.5) program and one formal and one online mode university of Pakistan. For convenience of data collection, The Islamia University of Bahawalpur from formal universities and Virtual University as online mode university was selected for investigation. For sample, 150 students (75 students from each university selected conveniently) were chosen. A questionnaire of 15 items was constructed keeping in view the objectives of study. Major aspects covered in questionnaire were three; resources, technical skills and interpersonal skills (see figure). It was validated through expert opinion method

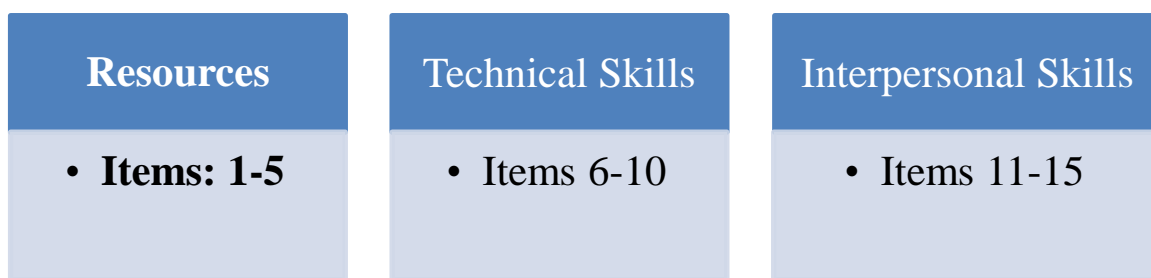| Resources	Technical Skills	Interpersonal Skills
• **Items: 1-5**	• Items 6-10	• Items 11-15

Figure 2: Structure of the questionnaire

Data was collected by online questionnaire. A record of cell number/ email of students was prepared from available sources. Randomly, 150 students were chosen, and questionnaire was sent

to them with request to send back data after filling the questionnaire but some students did not replied. So, missing number of respondents were replaced from the rest of list until targeted number of students (75 formal mode learners and 75 online virtual mode learners) could not respond. At the data analysis stage, collected data was entered in SPSS Sheet by using Statistical Package for Social Sciences-21 Version. Descriptive statistics and t-test were applied to draw the results.

3.   Results of the Study

The data after analysis is presented under in the form of tables followed with description:

Table 1: *Gender of the respondents*

Demographic Variable		Frequency	Percentage
Gender	Male	53	35.3
	Female	97	64.7
Total		150	100.0

Table 1 is about the gender of the respondents. It is evident from the table that 97 (64.7%) respondents were female and 53 (35.3%) of the respondents were male. So, it is evident that majority of the respondents were male.

Table 2: *University type wise detail of the respondents*

Demographic Variable		Frequency	Percentage
University	Online mode students	75	50.0
category	Formal mode students	75	50.0
Total		150	100

Table 2 of the study was shown data about the University of the Respondents. It is evident that 75 (50%) respondents were from online mode university and75 (50%) were from formal mode. This was due to effort of researcher to give equal representation to formal and online mode type students in sample to evaluate effect of established procedures in the specific type universities regarding the issues under investigation.

Table 3: *Residential status of the respondents*

Demographic Variable		Frequency	Percentage
Residential	Urban	79	52.7
background	Rural	71	47.3
Total		150	100

In table 3, detail about the residence background of the respondents has given. It is evident from the data that 79 (52.7%) respondents belong to urban area and 71 (47.3%) were the residents of rural area. Hence, majority of respondents were 79 (52.7%) from urban area. Although it was by chance. But, representation of majority of urban students provided a facility to analyze data with the angle that urban areas usually have better living conditions in comparison to rural areas regarding the online communication mode.

Table 4: *Respondent's opinion about availability of resources*

Sr.	Statement	SDA%	DA%	UD%	A%	SA%
1	Every student has account on university database to attend online classes	26.0	24.7	3.3	33.3	12.7
2	Institution provides a proper schedule for online classes to you	20.0	12.0	9.3	26.7	32.0
3	Facility to purchase internet bundles is available in pandemic shutdown of COVID-19	48.0	31.3	10.0	8.0	2.7
4	You have financial resources to purchase internet to access E-services of the institution	36.7	17.3	18.0	17.3	10.7
5	You have access to internet service in the area of residence	24.0	18.0	25.3	17.3	15.3

Table 4 exhibits data about the availability of resources for online education to students. It exhibits that 50.7% respondents were in favor of the statement that every student has account on university database to attend online classes. In the next statement about resources, 58.7% respondents agreed to the statement that their institution provide proper schedule for online classes. In the statement about facility to purchase internet bundles is available in pandemic shutdown of COVID-19, 79.3% students showed negative opinion and rejected the statement. About the financial resources to purchase internet to access E-services of the institution, 54% respondents disagreed to the

statement and when they were required about access to internet service in their area of residence, 42% students showed their disagreement and 25.3% remain undecided.

Table 5: *Total Scale of Resources*

Group Variable	SDA%	DA%	UD%	SA%	A%	Mean	SD
Resources	30.94	20.66	13.19	20.53	14.68	11.11	2.708

Table 5 is about total scale of resources. It is clear from the table that 51.6% respondents were against the statements of resources section. Whereas 35.21% respondents favored the statement sand 13.19% remained undecided. Mean score 11.11 indicated students' dissatisfaction about the resources availability to proceed for learning during COVID-19 pandemic shutdown. This indicates a severe need for providing resources of online related support services to students. In relation to connecting data of table 4 and 5, institutions have generated systems for providing education through online mode but unavailability of online media at residential areas created problems for students.

Table 6: *Comparison of online mode and formal mode university students about Resources*

Demographic Variable	Category	N	Mean	SD	t-value	Sig.
Students' belonging	Online Mode	75	10.75	2.822	-1.633	0.105
	Formal Mode	75	11.47	2.593		

Table 6 presents data about the comparison of the students of online mode and formal mode university. It is evident from p-value (0.105) that there was no significant mean difference about the opinion of the students of groups about the statements in the resource section. This explores that situation of online support services for all types of universities was same. By connecting data of table 5 and table 6, it is evident that students in formal and virtual mode universities were not satisfied with availability of resources for online learning.

Table 7: *Respondent's opinion about Technical Skills*

Sr.	Statement	SDA%	DA%	UD%	A%	SA%

1	You can use modern gadgets (Android Mobile or Internet Device) for E-services	32.0	25.3	21.3	11.3	10.0
2	You are aware to use E-services (Social Media & online software's)	38.7	23.3	24.7	7.3	6.0
3	Teachers are trained to impart the necessary skills by using E-support services	28.0	26.7	25.3	8.7	11.3
4	Teachers provide instructions effectively through E-support services	42.0	13.3	17.3	16.0	11.3
5	Your efficiency is effected due to flexibility in classes	16.7	10.0	25.3	28.7	19.3

Table 7 presented respondents opinion about the statements of technical skills. In the statement about using modern gadgets (Android Mobile or Internet Device) for E-services, 57.3% respondents disagreed. In next, 62% disagreed that they are aware to use E-services (Social Media & online software's). About the students' opinion regarding "teachers are able to impart the necessary skills by using E-support services" 54.7% respondents showed their disagreement. They pointed out that teachers are not trained to impart the necessary skills by using E-support services (statement 3, table 7). Table also indicates that when students were inquired about "Teachers provide instructions effectively through E-support services" 55.3% rejected the statement and about their efficiency, 48% of them agreed that their efficiency is affected due to flexibility in classes. On the whole, data of table signifies that technical skill of teachers is poor in dealing satisfactory level online teaching that indicates need to train teachers skill for dealing issues of online teaching.

Table 8: *Total Scale of Technical Skills*

Group Variable	SDA%	DA%	UD%	SA%	A%	Mean	SD
Technical Skills	31.48	19.72	22.78	14.4	11.58	10.15	2.817

Table 8 showed the total scale of Technical Skills. It is calculated that 51.2% respondents were against the statements in the technical skills. About 26% respondents were in the favor of the statements, however 22.78% remained undecided. It showed that respondents were dissatisfied with the statements investigated in the technical skill section of the study.

Table 9: *Comparison of online and formal students about Technical Skills*

Demographic Variable	University Category	N	Mean	SD	t-value	Sig.
Students' background	Online	75	10.95	3.237	3.428	.001
	Formal	75	9.36	2.398		

Data in table 9 is about the comparison of the students of online and formal mode students. It is evident that (p-value 0.001) there was significant mean difference about the opinion of groups about the statements in technical skills group. Here, high mean score of online mode university students (online10.95) shows more satisfaction of students regarding the technical skill of teachers. This also indicates that formal university students suffered because of immediate implementation plan of online teaching due to COVID-19 pandemic shutdown. This clues that unless having specific teacher training, teaching is difficult in online mode. In the same way, students habitual and trained to learn using traditional way of learning cannot easily understand the procedures of online education process. This data also signifies that e learning and distance education setup requires specific conditions and training of its personnel and students.

Table 10: *Respondent's opinion about Interpersonal Skills*

Sr.	Statement	SDA%	DA%	UD%	A%	SA%
1	Unavailability of direct interaction with teachers and peers causes isolation	18.0	11.3	20.0	26.7	24.0
2	Unavailability of the institutional environment has decreased your performance	8.0	14.7	19.3	33.3	24.7
3	You lack guidance as you have a break during class for direct interaction	44.7	40.0	3.3	8.0	4.0
4	You are de-motivated as you are away of live learning environment	4.0	6.0	2.7	41.3	46.0
5	Learning is difficult without proper learning environment	13.3	14.0	14.7	27.3	30.7

Table 10 presented respondent's opinion about Interpersonal Skills. In statement "Unavailability of direct interaction with teachers and peers causes isolation", 50.7% respondents agreed. When they were asked; whether unavailability of the institutional environment has decreased their performance, 58% respondents responded in the favor of the statement. About lacking guidance as they have during direct interaction, 84.7% respondents rejected the statement. Regarding the statement they were de-motivated because they were away of live learning environment, 87.3% gave the opinion in the favor of the statement and in learning is difficult without proper environment, 58% of them were agreed to the statement.

Table 11: *Total Scale of Interpersonal Skills*

Group Variable	SDA%	DA%	UD%	SA%	A%	Mean	SD
Interpersonal Skills	17.6	17.2	12.0	27.32	25.88	13.54	2.109

Table 11 is about total scale of Interpersonal Skills. It is clear from table above that 53.2% respondents gave opinion in the favor of the statements of interpersonal skills, 34.8% were against and 12.0% remained undecided. As items in this block were negative, it is explored that respondents were dissatisfied with their interpersonal skills to absorb in new situation and accept learning by online mode.

Table 12: *Comparison of online and formal mode students about Interpersonal Skills*

Demographic Variable	University Category	N	Mean	SD	t-value	Sig.
Students' background	Online	75	12.22	2.304	-7.663	.000
	Formal	75	14.87	1.914		

Table 12 is about the comparison of *online and formal mode student*. P-value (0.000) showed significant mean difference about the opinion of the students of both groups about the statements in the section. This explores different level of approval of students belonging to formal and online mode university regarding interpersonal skills. This signifies that teachers of formal institutions need more training to improve interpersonal skills and these institutions require to review their procedures and plan for availability of resources and support services for e learning. A comparison of mean score of online and formal mode students indicates that formal mode students are more dissatisfied with the process. This clues that much dissatisfaction of students with the e learning system is due to lack of poor support e learning services in formal system where students, teachers and institution (all) were in novel system. This also hints poor support services in the process here.

Discussion

This study was conducted to find out the challenges of HEI's electronic support services in teacher education programs in result to COVID-19 pandemic shutdown. In the study, availability of resources for students, students and academia's technical and interpersonal skill related evidences were analyzed. The findings have indicated flaws in the process of E-support

services in educational process during COVID-19 pandemic shutdown. A brief discussion on each aspect investigated is given in the next.

Regarding the first objective of the study, that was related to evaluate the availability of resources, most of the respondents were in favor that every student has account on university data base to attend online classes. They also admitted that their institution provided proper schedule for online classes. But they showed negative opinion about the facility to purchase internet bundles and its availability during pandemic shutdown of COVID-19. They pointed out difficulty of having financial resources to purchase internet services to access E-services of their institutions and about the access to internet service in their area of residence. It was also observed that students who were already attached with online mode university were in same view with the formal mode students. Although appreciating part of the institutions highlighted by the study indicated that institutions developed their resources during short period of time and provided online accounts to students to link their university and academia for learning as well as appearing in examinations. It can be assumed that pandemic shutdown of COVID-19 created a difficulty for internet services providers to facilitate students at remote areas due to accidently occurrence of shutdown.

Regarding the second important part of the study "analysis of technical skills" of students and teachers, mostly respondents discontented about using modern gadgets (Android Mobile or Internet Device) for E-services. Majority of the respondents were not aware to tactfully use E-services to impart the necessary skills by using E-support services. They also highlighted that flexibility in classes has affected their working negatively.

About the next part of the study "analysis of interpersonal skills" majority of respondents was united in the favor of the statements that unavailability of direct interaction with teachers and peers causes isolation. Unavailability of the institutional direct face to face interaction decreased their performance. In fact, formal learners could not develop their direct interaction to their teachers, peers and support staff using online way due to lack of training and proper availability of devices and needed resources for e learning. More dissatisfaction of formal institutions' students was eminent here in comparison to virtual background related learners here. This discussion gives hints to educators, institutions and policy makers that;

1. Unless having an established system of education, institutions cannot give output as per requirement.

2. Unless developing and providing resources of online learning, formal institutions cannot be turned to adopt online system of education.

3. A formal and distance teacher needs specific training and skills of teaching.

4. A formal and distance learner are habitual to learn in different ways.

5. Technical training of online teaching is necessary to meet the challenges of post effects of COVID-19 pandemic shutdown.

6. Interpersonal skills of teachers and learners need to be improved to meet the challenges of effect of COVID-19 pandemic shutdown through training sessions.

7. Institutions need to hire academia that is trained for online teaching instead just focusing to just strengthen their IT resources.

4.   Conclusions

This study was an attempt to check the challenges of HEI's electronic support services in teacher education program. It has concluded that purchasing internet bundles was difficult during pandemic shutdown of COVID-19. Students faced financial problem to purchase internet service to access E-services of their institutions and most of them had no access to internet service in their area of residence. Regarding the technical and interpersonal skills, it was concluded that majority of respondents were unaware to use modern gadgets (Android Mobile or Internet Device) for E-services. They were unaware to use E-services (Social Media & online software's). It is also concluded that teachers are unable to impart the necessary skills by using E-support services. They don't provide instructions effectively through online teaching. Students efficiency has affected due to flexibility in classes because formal teachers and learners were habitual to work under planned, disciplined and strict system. In result to the shortfalls in technical and interpersonal skills and poor availability of resources, students have been de-motivated as they are away of effective learning environment and learning is difficult without proper environment.

4.1.   Recommendations

On the basis of findings following recommendations were made:

1. Due to pandemic shutdown of COVID-19, facility to purchase internet bundles was poorly available to majority of students; So HEI's may arrange internet bundles for students and academia with collaboration of internet providing companies.

2. Students have poor financial resources to purchase internet to access E-services of their institutions as their families face curse crises due to shut down. Government with the help

of stake holders (HEC, HEI's, etc.) may provide free internet services to students for online classes in return to fee paid by students to the institutions in compensation of nonattendance of classes in formal classroom.

3. Access to internet service in all areas of residence is a big issue in Pakistan. Government may resolve this problem with the help of PTCL and other cellular companies.

4. Training to use modern gadgets (Android Mobile or Internet Device) and to use E-services (Social Media & online software's) may be provided to teachers and students.

5. Teachers may be trained to impart the necessary skills and to provide instructions effectively through E-support services.

6. Students need to understand that online education provide flexibility in process for learners. This is positive sign that is beneficial for learners. So, in present situation, they should learn to continue their learning according to conditions of E-learning.

7. Teachers may use programs like Zoom meeting to engage students so students may feel like they are in a live classroom.

8. Further study may be conducted involving expanded sample from different universities.

9. A study may be conducted adopting qualitative research design on the same topic.

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