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Effectiveness of Distance Education During Covid-19 at Higher Education Level: Perceptions of Students

Safeer Ijaz¹, Muhammad Munir Kayani², Syed Ghazanfer Abbas^{3*}

International Islamic University, Islamabad

Corresponding Author: Syed Ghazanfer Abbas syed.ghazanfer51214@gmail.com

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ABSTRACT

In the present era of information technology, distance education or online education has been referred to as the method of content dissemination and quick learning technique. Distance education is a key component of education in the 21st century. The birthplace of distance education is the United States of America (USA) and then expanded over worldwide after 1998. The main purpose of this study was to investigate the effectiveness of distance education during COVID-19 at higher education and perceptions of students. This research was conducted to achieve objectives which were: to study the students' perceptions of effectiveness about distance education during the outbreak of COVID-19 at the higher education, to find out the effect on students perceptions about effectiveness of distance education during the outbreak of COVID-19 at the higher education, and to determine different problems faced by students of distance education during the outbreak of COVID-19 at higher education. The quantitative research approach was used to analyze this research study and the population of the study was comprised of 153 students of BS level Spring Semester 2020 at Faculty of Social Sciences, National University of Modern Languages Islamabad. The sample has been collected through Universal Sampling techniques. Closed-ended five points Likert Scale questionnaire was used to collect data from the selected population. The reliability of the instruments was checked through Cronbach's Alpha which was 0.81. Data were collected through online Google survey forms. Collected data were analyzed through specific statistical software, IBM-SPSS (Version 23). The Frequency and Percentage techniques were used to analyze the data. The results were obtained in the form of tables. The final results showed that respondents had positive perceptions about distance education and it may be continue, respondents indicated the issue of non-availability of distance learning resources and gadgets and these may be provided. Poor internet connection, load shedding, lack of social interactions during distance learning and health risks were also identified in the finding and these may be countered by proper planning and training

INTRODUCTION

The COVID-19 pandemic has sped up the adoption of remote learning at all levels of education, from pre-kindergarten to higher education. There were many colleges that provided distant learning before the outbreak. But because of the epidemic, a number of governments replaced required in-person instruction with distance learning (Masalimova, Khvatova, Chikileva, Zvyagintseva, Stepanova&Melnik, 2022). The global educational system suffered as a result of the COVID-19 crisis. As a result, educational institutions all around the world created a new method for providing instructional programmed (Insorio & Macandog, 2022). In the majority of the countries during this time, distance education has been the only option, and because to the risk of not being able to resume face-to-face instruction, these nations have pushed to extend their use of distance education and make it essential (Zagkos, 2022).

Concept of Distance Education

The 21st century's educational system heavily relies on distance learning. The United States of America (USA) was the birthplace of distance learning, which later spread to other countries after 1998 (Ramij & Sultana, 2020). According to Britannica, distance education is a type of instruction where the primary components are the physical separation of teachers and students during instruction and the use of various technologies to allow student-teacher and student-student contact (Simonson, 2016). In the domains of pedagogy and psychology, the topic of distance learning has been extensively researched for a while (Palatovska, 2021). The main difference is that most interactions between professors and students were asynchronous early on in the history of distance education. Synchronous work opportunities increased with the development of the Internet and now encompass everything from chat rooms to videoconferencing tools. Asynchronous material exchange has also been significantly moved into digital environments and communication channels (Virtic, 2021).

Distance Education in the Context of COVID-19 Pandemic

Due of the epidemic, many educational facilities around the world had to close their doors to allow pupils to engage in social isolation. Prior to the pandemic, there was little demand for distance learning because it was a novel kind of instruction, the advantages of which and their calibre were hard to assess due to a lack of statistics. However, a corona virus pandemic in 2020 sped up the transition to distance learning to the point where it became the only practical form of instruction and communication (Viktoria & Aida, 2020). The development of digital technology has made it necessary for lecturers and educators to employ E-learning platforms. Higher education remote learning environments frequently separate activities into synchronous course sessions and asynchronous activities and tasks. In synchronous courses, students engage in engaging and focused experiences that aid in the development of a fundamental understanding of technology-enhanced learning, course design, and effective online instruction. On the other side, asynchronous tasks and activities include tests, group work assignments, group discussions, feedback, and projects. Additionally, interactive video-based activities, facilitator meetings, live webinars, and keynote speakers are used to carry out asynchronous activities and duties (Virtic, 2021).

Background of the COVID-19 Pandemic

The world was severely impacted by the COVID-19 corona virus disease. Initially discovered in December 2019 in Wuhan, China, a city of over 11 million people. In just three months, it has spread to 188 nations and territories, infected over a million individuals, and caused the deaths of over 11,000 people (WHO, 2020). The COVID-19 virus is extremely infectious and spreads swiftly. Many governments, including those of Australia, China, Italy, Malaysia, the United Kingdom, Saudi Arabia, Singapore, Spain, and the United States, among others, have a partial or total shutdown in order to stop the spread. It has undoubtedly led to the virtual cessation of practically all economic, commercial, non-commercial, and governmental operations on a

global scale (Jan, 2020). While activities like air travel, tourism, entertainment, and ride-sharing have all but stopped, online meeting and teaching platforms like Zoom, Google Classroom, and Microsoft Teams, as well as the online gaming sector and online food delivery, continue to run smoothly (Ramadan, 2020).

World Health Organization Report

The WHO declared COVID-19, a pandemic that threatened the health, social structure, and economic well-being of humanity, in March 2020. Most nations throughout the world resorted to social and economic lockdown, which entailed the shutdown of all activities that will result in physical contact of people, in order to properly apply social distance, a crucial WHO guideline for slowing the spread of the COVID-19 virus. This had the unsettling effect of ending face-to-face instruction and learning, which is the most common and well-established method of instruction and learning in education and training globally, particularly in developing countries (Inusah & Debrah, 2022). The majority of educational institutions, particularly those with higher learning requirements, implemented online teaching and learning as a last resort to prevent a complete suspension of instruction. Although online learning was already a different way to learn in certain developed nations, it is still a relatively new way to learn in most of the world, especially in rural areas. The flexibility, usability, controlling environment, and reality that online learning offered the only superior option for continuing education during the epidemic were all praised by educational institutions and students around the world (Khan et al., 2021).

COVID-19 Outbreak in the Context of Pakistan

On January 30, 2020, and March 11, 2020, the World Health Organization proclaimed COVID-19 a pandemic and an international public health emergency. On February 26, 2020, the Federal Health Ministry in Karachi and Islamabad announced the first two COVID-19 cases in Pakistan (Saqlain, Munir, Ahmed, Tahir, & Kamran, 2020). There were 165,062 COVID-19 cases in the nation as of June 19th, 2020, and 3,229 people died from the

disease. All educational institutions in Pakistan were shut down on March 13, 2020, as a result of COVID-19 (Ali, 2020). The Higher Education Commission issued directives to higher education institutions to begin preparing for distance learning modes, reschedule the current exams, and regularly provide online support to their students until the COVID-19 crisis remains unchanged, in accordance with the orders given by the Federal Government of Pakistan (Ali, 2020). COVID-19 has undoubtedly had a significant impact on students, teachers, and educational organisations around the world, much like many other elements of daily life (Mailizar, Almanthari, Maulina, & Bruce, 2020). Due to the pandemic, educational institutions around the world had to close their doors so that students could adhere to social segregation policies (Toquero, 2020). However, a smooth transition from a setting of traditional education to one of remote and virtual learning could not be accomplished overnight. At this time, a number of difficulties and challenges are connected to this quick shift. But since there is no way of knowing when this pandemic will end completely, educational institutions around the world chose to employ the technological tools already at their disposal to provide online learning materials for students across all academic subjects (Kaur, 2020).

Research Objectives

The study was conducted to achieve the following objectives;

1. To study the students' perceptions of effectiveness about distance education during the outbreak of COVID-19 at higher education level.
2. To find out the effects on students perceptions about effectiveness of distance education during the outbreak of COVID-19 at higher education level.
3. To determine different problems faced by students of distance education during the outbreak of COVID-19 at higher education level.

Delimitations of the Study

The study was delimited to:

1. Faculty of Social Sciences, National University of Modern Languages Islamabad.
2. To study the perceptions of BS level students, Spring Semester 2020.

METHODOLOGY

Research Design

The study was quantitative. A descriptive survey research design was used for this study. Data were collected by the quantitative method by using a self-developed questionnaire.

Population of the Study

The 153 students from the Faculty of Social Sciences at the National University of Modern Languages in Islamabad made up the study's total

participant population. Eight departments make up the Faculty of Social Sciences: Psychology, Education, Governance & Public Policy, International Relations, Islamic Studies, Media & Communication Studies, Pakistan Studies, Peace & Conflict Studies. The University Department Coordinator Office reported that there were 153 students in total across all of these departments.

Sample Size and Sampling Techniques

Data from the chosen population in this study were gathered using the universal sampling technique. A total of 153 students from Islamabad's National University of Modern Languages' Faculty of Social Sciences were included in the sample. In the Faculty of Social Sciences, there are eight departments.

Sample Size of the Population

Table 1. Sample Size of the Population

S. No	Departments (n=08)	Sample Size	% Age
1	Psychology	21	14
2	Education	17	11
3	Governance & Public Policy	15	10
4	International Relations	29	19
5	Islamic Studies	13	08
6	Media & Communication Studies	24	16
7	Pakistan Studies	23	15
8	Peace & Conflict Studies	11	07
Grand Sum		153	100 %

(Sources: NUML Department Coordinator Offices, 2020)

Research Instruments

As the instruments for gathering data for the study, closed-ended questionnaires were created. The Five-Point Likert Scale Questionnaires were used to collect data from the students (5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, and 1 = Strongly Disagree). To gather information from students, a single questionnaire was developed.

Validity and Reliability of the Instruments

In the sphere of education, the instrument's validity was confirmed. According to the professional's recommendations, the tool was modified and adopted. By using Cronbach's Alpha,

the instruments' reliability was evaluated. The student survey's reliability score was 0.81.

RESULT

Students Perception of Effectiveness About Distance Education in COVID-19 Pandemic

According to the finding in table 02 indicated that the majority (77%) of the students agreed about distance education is a helpful tool to teach the students, 81% students agreed about nervousness due to sudden shift of face-to-face classes to distance classes, 76% students agreed that distance education is only way to continue your study, 68% students

agreed that only distance classes help to overcome the study gap during COVID-19 Pandemic and 84% students agreed that Preparing of Assignments on Internet as a Difficult Task?

Frequencies, Percentages and Mean of Items for Students Perceptions

Table 2. Frequencies, Percentages and Mean of Items for Students Perceptions

Statement	SA	A	N	DA	SD	Mean
Distance education is a helpful tool to teach the students	73	45	15	11	09	
	48%	29%	10%	07%	06%	
You feel nervousness due to sudden shift of face-to-face classes to distance classes during covid-19 outbreak	82	42	11	14	04	
	54%	27%	07%	09%	03%	
During COVID-19 outbreak, you think that distance education is only way to continue your study	54	62	09	15	13	153
	35%	41%	06%	10%	08%	100%
You think that only distance classes help to overcome the study gap during COVID-19 pandemic.	61	43	13	19	17	
	40%	28%	09%	12%	11%	
Do you think that during COVID-19, preparing of assignments on internet as a difficult task?	71	59	09	04	10	
	46%	38%	06%	03%	07%	

Effect on Students about Effectiveness of Distance Education in COVID-19 Pandemic

According to the finding in table 03 indicated that the majority (63%)of the students agreed about distance education help to reduce social interactions after outbreak of COVID-19, 65% students agreed about distance classes as compared to physical classes can save time during COVID-19 infection,

73% students actively participated in distance classes during COVID-19 pandemic, 88% students agreed that distance learning software's (zoom, micro soft team) are helpful to complete the objectives of study during COVID-19 outbreak and79% students face by different problem during distance classes like poor internet connection or electricity load shedding.

Frequencies, Percentages and Mean of Items for Effectiveness on Students Perceptions

Table 3. Frequencies, Percentages and Mean of Items for Effectiveness on Students Perceptions

Statement	SA	A	N	DA	SD	Mean
You think that distance education help to reduce social interactions after outbreak of COVID-19	52 34%	44 29%	23 15%	18 12%	16 10%	
Distance classes rather than physical classes save you from covid-19 infection	43 28%	57 37%	33 22%	07 05%	13 08%	
During COVID-19 pandemic, you actively participated in distance classes	68 44%	44 29%	17 11%	14 09%	10 07%	153 100%
Distance learning software's (zoom, micro soft team) are helpful to complete the objectives of your study during covid-19 outbreak	72 47%	63 41%	06 04%	07 05%	05 03%	
During COVID-19 pandemic, you face problem during distance classes like poor internet connection or electricity load shedding	48 31%	73 48%	18 12%	09 06%	05 03%	

Problems Faced by Students During COVID-19 Pandemic

According to the finding in table 04 indicated that the majority (72%) of the students worry about the non-availability of resources and gadgets like Smart phone, Laptop and internet connection, 69% students agreed that the excess use of digital screen is harmful for eyesight, 58% students agreed that

poor internet connection interrupts your distance classes during COVID-19, 70% students agreed that no peer learning in distance classes during COVID-19 Pandemic and 89% students agreed that continuous online classes may cause mental health problems like anxiety and depression during COVID-19 Pandemic

Frequencies, Percentages and Mean of Items for Different Problems Faced by Students

Table 4. Frequencies, Percentages and Mean of Items for Different Problems Faced by Students

Statement	SA	A	N	DA	SD	Mean
Initially, you were worry about the non-availability of resources and gadgets like Smart phone, Laptop and internet connection.	67 44%	43 28%	17 11%	15 10%	11 07%	
You think that the excess use of digital screen is harmful for eyesight.	58 38%	47 31%	22 14%	12 08%	14 09%	
You think that poor internet connection interrupts your distance classes during COVID-19.	41 27%	48 31%	29 19%	27 18%	08 05%	153 100%
You think that there is no peer learning in distance classes during COVID-19 Pandemic.	63 41%	45 29%	17 11%	15 10%	13 09%	
You think that continuous online classes may cause mental health problems like anxiety and depression during COVID-19.	89 58%	47 31%	09 06%	05 03%	03 02%	

DISCUSSION AND CONCLUSIONS

Campuses of schools, colleges, and universities serve as hubs where students come together to live and learn. Depending on the size and status of the institute, they also function as busy public areas where numerous people engage in a variety of activities (Huba & Freed, 2000). The fast spreading corona virus (COVID-19) pandemic, for which social distance is the primary protection strategy, has drastically weakened the foundations of this unique ecosystem, reducing the usual face-to-face educator-learner connections (Onyema et al., 2020). Campus doors have been closed for teachers and students worldwide as a result of COVID 19, which has led educational institutions to cancel lessons. As a result, educational institutions around the world switched from traditional pedagogical learning to distance learning (Dhawan, 2020). Many institutions were forced to switch totally to remote

learning or online teaching-learning paradigms because they had previously been reluctant to abandon their traditional pedagogical approach (Zhu et al., 2020). For many years, distance learning has supported traditional education. However, due to the COVID-19 situation, all classes are now taught remotely or online (Dhawan, 2020).

Over many years, as modern technology and applications advanced, the distant learning system also did. A growing number of educational institutions are implementing a switch from conventional face-to-face instruction to remote learning or merging traditional and online instruction (Dhawan, 2020; Sun et al., 2016). Distance learning does have the clear advantage of social isolation, but it also has a number of drawbacks. Time management, technical skills, a lack of proficiency with technology tools, a lack of social interaction, inadequate e-learning resources, internet facility

accessibility, communication and coordination gaps, and the absence of in-person interactions are among the reported issues that distance education systems encounter. These issues with the online learning environment during the COVID-19 Pandemic may hinder or negatively impact the adoption of technology-enhanced learning, which could lower academic outcomes. It is crucial to ascertain students' perceptions about remote learning in order to effectively handle these issues, particularly from their perspective, which is the main focus of this technique (Demuyakor, 2020). This would support the development of effective distant learning programmes that maximise academic results. In light of this, the current study's goal was to assess how National University of Modern Languages students in Islamabad felt about remote learning.

According to our findings, the majority of respondents who were students (77%) believed that the COVID-19 Pandemic was a time when online education was the most crucial and useful learning tool (table 02). These results are consistent with a prior study from India, where university students favoured online or distant learning as a viable alternative to conventional instruction during COVID19 (Jena, 2020c). Power load shedding and bad internet connections, which bothered 79% of the respondents, were another issue causing internet inaccessibility (table 03). Online learning has been observed to be particularly difficult in undeveloped countries due to electricity load shedding and weak internet connectivity in a number of studies (Al-Amin et al., 2021; Rehman, 2020). Another significant worry on students' minds (70%) was the absence of peer learning and teaching, which could have an impact on the effectiveness of distance or online learning in comparison to traditional learning. Peer learning has been a big concern for distance learning approach. Every person has a unique mentality and learning style, and peer learning enables slow learners to gain from the expertise of quick learners and teachers through collaboration and sharing. Individual distance classes, however, are missing this reciprocal interaction phenomenon (Keppell et al., 2006; Yates et al., 2020).

Another issue with distance learning raised by students was that merely the internet was insufficient to assist the students in finishing their assignments, according to 84% of them (table 02). Regarding students' experiences with distance learning and distance distance learning, a similar issue has previously been found in various research. The primary reason for this is a lack of direct communication with teachers for advice and with peers for sharing of course materials (Baber, 2020; Fidalgo et al., 2020). Regarding the usage of software and other technologies for online learning (Zoom, Microsoft team, and Google meeting, etc.) According to 88% of students (table 03), they supported online student-teacher interaction and were user-friendly. However, a population of 10-12% respondents felt uneasy using these technologies. Particularly for educational institutions and corporate and administrative meetings, the creation of these software has shown to be a very efficient way of interacting with the public (Alameri et al., 2020). Lack of computer abilities, however, makes it difficult to maximise the use of these tools and also causes user pain (Rojabi, 2020).

Distance learning requires students to spend a lot of time staring at devices like laptop and mobile phone screens, which has a negative physiological impact on the user's eyesight, posture, and headaches, as well as a negative psychological impact on stress, worry, and discomfort (Books, 2003; Singh, 2020). Table 04 of our findings revealed that 69% of students believed excessive screen use was bad for their eyes. In addition, 84% of students (table 04) thought that taking continuous online classes contributed to mental health issues like anxiety and sadness. These findings were reinforced by earlier research that showed psychological distress among students participating in ongoing online or distant learning procedures (Ala'a, Akour & Alfalah, 2020; Hasan et al., 2020). In conclusion, the current survey demonstrates that, in the COVID-19 Pandemic circumstance, the majority of university students view remote or online learning as a reliable and secure method of instruction. However, there have been concerns with the

availability of materials, technological skills, a lack of peer learning, reluctance to participate in online classes, inability to complete assignments, and specific health-related problems like vision and mental health disorders. It could be possible to improve the results of distant learning by addressing these problems.

RECOMMENDATIONS

The following recommendations are made in light of the study's findings:

1. Distance learning should continue to be used as a mode of education during the pandemic, keeping in mind the limitations of the COVID-19 epidemic.
2. Institutions and governments may concentrate on the availability of resources such as laptops, smart phones, internet connections, etc. for remote education. The Prime Minister Laptop Scheme and other previously announced programmed could be revived to achieve the desired results.
3. To avoid students consuming too much screen time, distance learning lectures, seminars, and workshops may be brief yet thorough. Additionally, the lessons might not run continuously and might regularly be broken up by breaks to allow the attendees to unwind and prevent physical and emotional stress.
4. Students may receive training on how to use technology for online programmed. Even after this outbreak, instructors and students may be urged to use the distance learning software's or gadgets.

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