Embracing the Shift: Unveiling the Benefits and Barriers of Distance Education Amidst the COVID-19 Pandemic

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Abstract

Aim: The present study aims to determine Pakistani teacher's perspectives on the advantages and the barriers to distance education.

Method: The data collection was applied by distributing the questionnaire among the study sample. The survey was based on the 1076 tutors. The data analysis through the t-test and variance ANOVA test was done to examine the significant differences between participants' reports.

Results: The outcomes of this survey exposed that distance learning has its benefits. However, some teachers faced some difficulties and barriers. The most significant view of the teachers is that during the online teaching procedure, they learn more and improve their technical skills, and they have the opportunity to use digital platforms. They have adequate time to prepare for the lectures. They have sufficient data on the digital web to deliver the courses properly and multiple sources to give the lectures with their suitability. Besides these advantages, there were a few barriers regarding distance learning; for instance, during the online session, due to networking issues and connection problems, some points always needed to be clarified to the students about the session.

Conclusion: Teachers put more effort into technical approaches for distance learning to

enhance students' academic performance. The practice of digital technology by adopting new advancements and initiating innovative steps makes learning easy.

Keywords: Benefits, barriers, distance education, coronavirus

Introduction

Countries have replaced conventional direct education with distant education as a defense approach in the battle against the 2019 new coronavirus disease (COVID-19). Even though many nations have been affected by natural and manufactured crises in the past, distance education has not been employed to respond to such concerns in the same manner it has been in the aftermath of the coronavirus outbreak (Alirezabeigi et al., 2020). In various respects, crisis distance learning (CDE) differs from traditional distance education in terms of its philosophy and processes (Mozaffari et al., 2021). COVID-19 wreaked havoc on all elements of human life worldwide, including education, study, sports, pleasure, mobility, religion, social gatherings/interactions, the market, corporations, and politics (Ghahroud et al., 2020). Certainly, the rest of the globe was in a state of panic due to the COVID-19 danger; the reality of the situation was difficult to bear, and the education system was one of the

hardest impacted by the epidemic (Hillman et al., 2020).

According to the UN Report (2020), the COVID-19 epidemic has significantly impacted schooling, with 190 nations being compelled to cease in-person instruction. Most of these countries have shifted to distance learning for crises (United Nations, 2020) (Abari & Orunbon, 2020). This transformation in learning methods has had a significant impact on the overall quality of education. The expressions electronic, remote, adaptable, open, combined, and integrated are often used in today's digital education system (Sancho-Gil et al., 2020). Various words, including online programmers, often refer to online learning. Distance education is a wide word that refers to any activity in the teaching and learning process that does not need the student to be fully present in the classroom, institution, or university (Beckman et al., 2018). Remote education is often referred to as e-learning, online learning, and distance learning. Distance learning allows the learner to communicate, as well as students and technology, without having both sides be physically present (Ndung'u & Mutegi, n.d.).

Numerous educational institutions largely emphasize shifting educational information from conventional to digital

media to increase students' access to such content; the unexpected shift from direct learning to remote education indicates organizational agility (Wijayanti et al., 2021). Some institutions handled the transition wisely, saving time and currency (Onyema et al., 2020). Distance learning has various advantages, including the capacity to study at any time and from any location and flexibility in learning, allowing students to think and respond (Bozkurt & Sharma, 2020). Furthermore, online education can boost students' motivation and attitudes toward learning. Because of the unplanned nature of the changes to online education, most academic institutions lacked resources, had insufficient access to/poor network connections, and lacked updated technology, which hampered both educational organizations and students' ability to participate in online learning (Yilmaz Ince et al., 2020). Another issue related to distance is insufficient interactions with teachers. Distance education is the time to get digital practices in the classrooms (Bakhov et al., 2021).

Literature Review

The limitations in the development comprised all the intents and the aims of all nations during the pandemic. Distance learning was an appropriate strategy for continuing the education system in pandemic circumstances (Stewart & Lowenthal, 2021). Interactive distance learning in multiple countries and all over the globe by moving towards e-learning and trying to adjust the present education system (Durak & Çankaya, 2020b). E-learning is a new style of schooling that permits the learners to learn at a favorable speed and the spot to take the class of the content course (Fauzi, 2022; Mikušková & Verešová, 2020). It is allowed to continue learning with any corresponding digital media. Along these lines, the exploitation of innovation in schooling can't be exaggerated, particularly with the web-based discovery that can help students get the necessary material and abilities to learn (Tzifopoulos, 2020).

Distance training is an essential collaboration between learners and their teachers that transpires outside the classrooms and the schools (KARADAĞ & Yucel, 2020). These digital media and advanced information can be conveyed to the learner through specialized means. The advantages of e-learning or digital learning for all the students and the teachers, including the digital partners. Digital learning is not restricted to the area, distance, location, and even time (Shtykhno et al., 2020). The

pandemic is a sufficient opportunity for students to enhance their knowledge and skills. One of the main benefits of distance learning is that learners can undeniably learn resources whenever and anywhere by just interfacing with the digitalized web (Salakhova et al., 2020). Distance education benefits in that it can cultivate positive spirits and financial qualities. Learners are bound to foster a positive behavior towards distance learning, particularly when they utilize instructive online context positively and effectively with appropriate direction (Arora & Srinivasan, 2020). Additionally, utilizing distance learning is directly proportional to the increment in students' abilities, information, and capacities. More than a few examinations uncovered the adaptability, minimal expenses with the simple access and social benefits (Senel & Senel, 2021).

There are several issues experienced in distance learning. Researchers have observed that one problem teachers confront during distance learning is the absence of students understanding online sessions. Moreover, prolonged social differences in certain nations bring about restricted admittance to training and the utilization of innovative learning (Sahbaz, 2020). A portion of these issues could not survive if the learner can properly utilize distance learning

and the digital framework (Tanik-Önal & Önal, 2020).

The studies have explored the impact of digital learning during the emergency of the Coronavirus (Aldhahi et al., 2022; Coman et al., 2020). Numerous difficulties of online learning were overcome, from the practicing and the training sections of web parameters. Web-based learning was very difficult in underdeveloped nations, and extensive networks and internet facilities were very low in some places, so some students badly suffered in the digital learning system (Lindner et al., 2020). Also examined in most studies that lack the presence of students and cooperation with their teachers, they did not attend classes in the ordinary sessions (Inciso, 2021; Vinichenko et al., 2021). A similar line uncovered that variables like affirmation, dependability, responsiveness and site content are also impacted by distance learning (Durak & Çankaya, 2020a; Hergüner et al., 2021).

Some researchers discovered that online learning quality was lower than the direct classes, and students could not fully understand the lessons (Adnan & Anwar, 2020). Teachers are not satisfied with the lectures. With the decline of these issues, some adaptations and practices have been required to utilize digital learning. Online

learning is not compatible with direct learning, but continuing education is better than nothing (Wojtowicz et al., 2020). The initiative of online learning ensured the improvement of technical skills.

Research Questions

By empirical design, this study is equipped to answer the following questions:

(1) What are the consequences of distance education during the Coronavirus Pandemic?

(2) What barriers are facing distance learning during the Coronavirus Pandemic?

(3) Is there any relationship between gender, experience, type of school, and the consequences and barriers facing distance education?

Methods and Material

Sample

The study examines the significance of distance education in Pakistani schools during the pandemic season. The samples were collected from 1076 primary, secondary, and intermediate schools in Pakistan. During sample collection, we preferred those teachers who currently

worked on digital media and using technology in the lecture session.

Survey

The survey, using Google Docs, was designed on the electronic Likert scale of 42-items for the questionnaire preparation. The survey investigates the efficiency of distance learning. The preliminary test was performed on the teachers. The adequate views from reviewers have the required modification, and it was based on the comments and suggestions from the respondents.

Data Analysis

We gathered the online questionnaire and analyzed it through descriptive statistics, tabulating the distributed frequency of teachers' responses for the data analysis. The teacher's answers were expressed in proportion (%), and the demographic data was collected from the Likert scale. The significant differences among the teachers' responses were examined through the t-test and the ANOVA variance, and the average and standard deviations (SD) were obtained through the three axles questionnaire.

Results

The survey is based on inferential and

descriptive statistics. The t-test and the variance analysis (ANOVA) belong to the inferential stats, whereas the frequencies, mean averages, and standard deviation refer to the descriptive statistics.

Table 1. Frequency distribution of the sample according to gender

		Frequency	%
Gender	Male	413	38.4
	Female	663	61.6
School	primary	443	41.2
	Intermediate	396	34.3
	Secondary	264	24.5
Experience	Less than 10 years	378	35.1
	11-20 year	439	40.8
	21-30 year	235	21.8
	More than30	24	2.2

Table 1 explains the frequency distribution conferring the gender in the sample study. The female participation in the present survey was 663 (61.6%), whereas the participation of male teachers was 41. (38.4%). The same Table illustrates the primary, secondary, and intermediate schools' teachers, 443(41.2%), 396(34.3%), and 264(24.5%), respectively. The experience of teaching is 11 to 20 years, with a ratio of 439 (40.8%), with 21 to 30 years of teaching experience the ratio has 235(21.8%), 24(2.2%) have more than 30 years, whereas as ten years of experience, 235(21.8%).

The teacher's opinion on the advantage of executing distance learning, the high mean values were (3.76) demonstrated in Table 2.

Table 2. The benefits of implementing distance education

Statement	Average	Standard deviation	Ranking
Provide teachers with skills to use technology in learning processes.	4.52	0.61	Very high
Providing teachers with the skills of using educational platforms.	4.43	0.60	Very high
Provides sufficient time for teachers to prepare the scientific content for the courses.	4.34	0.74	Very high
Introduce teachers to some technical solutions for educational uses.	4.29	0.70	Very high
Distance learning provides flexibility in using multiple media to explain the course material.	4.09	0.82	High
It enables learners to perform assignments and assignments on time.	3.94	0.95	High
Introduce teachers to some technical solutions for educational uses.	3.93	0.89	High
Facilitate monitoring of learners' performance online.	3.85	1.04	High
Provides sufficient time for teachers to prepare the scientific content for the courses.	3.84	1.02	High
Provide learners with first-hand feedback.	3.80	0.92	High
Allow sufficient time for the teacher to enrich the course content.	3.75	1.03	High
It contributes to increasing the interaction of electronic learners with scientific material.	3.69	1.06	High
Diversity of electronic assessment methods to evaluate the learning process	3.61	1.15	High
Being able to implement practical applications of the courses in an applied manner.	3.60	1.01	High
General Average	**3.76**		**High**

Table 3. The barriers to distance education

Statement	Average	Standard deviation	Ranking
Continuous remote connection problems (devices, internet, applications, etc.).	4.08	1.02	High
Low motivation for some students to learn from a distance.	3.91	1.05	High
The need of some learners for direct (urban) education.	3.90	1.10	High
It is difficult for some students to understand some subjects without interaction in the classroom.	3.88	1.21	High
The lack of electronic devices for some of the learners.	3.86	1.03	High
Weak technical background of teachers before adopting distance education.	3.78	0.02	High
Poor technology skills for learners and parents.	3.68	1.09	High
Lack of reliability with remote evaluation methods.	3.66	1.11	High
Resistance of learners to adapt to the distance learning strategy.	3.60	0.98	High
The lack of uniform controls for the use of electronic media.	3.59	0.96	High
Weak technical support for using the platform.	3.49	1.07	High
The home environment is not suitable for students to learn remotely.	3.39	1.20	Medium
Not preparing the school community for distance learning.	3.38	1.10	Medium
The presence of an educational loss in distance education.	3.33	1.18	Medium
The lack of diversity of evaluation models for learners in distance education.	3.26	1.11	Medium
Difficulty in learning some practical courses remotely.	3.25	1.17	Medium
Difficulty delivering scientific content to students remotely.	3.01	1.19	Medium
General Average	**3.59**		**High**

Table 4. The suggestions for developing distance education processes

Statement	Average	Standard deviation	Ranking
Providing direct technical support at any time.	4.45	0.73	Very high
Put videos explaining the study materials on YouTube channels.	4.42	0.78	Very high
Improving the level of support services that support distance education operations.	3.36	0.69	Medium
Raising the level of positive trends towards distance education.	3.35	0.71	Medium
Employing the mass media in raising awareness of the importance of optimal use of distance education tools.	3.31	0.74	Medium
Motivating the distinguished school community in the application of distance education processes.	3.30	0.75	Medium
Establishing community partnerships with companies and technical institutions in distance education.	3.29	0.76	Medium
Intensifying training programs in distance education for stakeholders.	3.26	0.78	Medium
Preparing various question forms for all courses.	3.23	0.75	Medium
Continuing to provide feedback to raise the level of application of distance education processes.	3.15	0.86	Medium
General Average	**3.48**		**High**

The high value designates the advantages of distance learning during the pandemic. The advantages align with different aspects that improve technical skills, obtain more knowledge, and have sufficient time to prepare for the session. Learners have more opportunities to maintain the tasks and have an innovative platform to enhance their abilities. The teacher's feedback shows they monitored all students

more efficiently and equally.

Table 3 illustrates the teachers' hindrances during the online lecture delivery. Numerous teachers have the same opinions about the difficulties during distance learning, and the statistic value also shows a high average of about (3.59). Several advantages were cited earlier, and this Table shows some barriers. Teachers' statements about the difficulties were the networking issues, lack of supporting media, technical problems, continuous connection problems, examination procedures, and the difficulty with preparing the rhythm of the lecture. Due to all these, the student's learning motivation was badly damaged.

The prior Table, Table 4, describes the solutions and suggestions for the teaching procedures. The average value of 3.48 indicates the same standpoints to the interference management during the online sessions and gives them ideas for designing understandable lecture preparations, raising awareness, and practicing utilizing the technical media. Build a smart digital school and train for learning.

Testing the Differences in the Significance

Table 5 demonstrates the teacher's behavior regarding distance learning. The mean value indicates no impact of gender on

the prospects of online teaching. They were on the same page and had the same difficulty faced during pandemics.

Table 5. t-test for differences between means concerning gender

Gender	N	mean	SD	t-value	Sig
Male	413	164.9	15.3	1.26	0.207
Female	663	163.7	16.2		

There have been no significant differences among the teacher's viewpoints in terms of teaching experience illustrated in Table 6. The outcomes of these statistics indicate no co-relationship between the teacher's behaviors and their experiences with distance learning.

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Subsequently, the same thoughts regard the digital working experience. Table 7 is based on the type of schooling with the primary, secondary, or intermediate, and in these participants, there are no significant statistics and no impact on distance education.

Table 6. Analysis of variance (ANOVA) for the differences concerning years of experience

Variable	Source of variation	Sum of squares	Df	Mean sum of squares	F	Sig
Experience	Between Groups	52.959	2	26.479	0.104	0.901
	Within Groups	272929.9	1073	254.361		
	Total	272982.836	371			

Table 7. Results of analysis of variance (ANOVA) for the differences in participants' opinions concerning the type of school

Variable	Source of variation	Sum of squares	Df	Mean sum of squares	F	Sig
Type of school	Between groups	720.726	3	240.242	0.946	0.418
	Within groups	272262.11	1072	253.976		
	Total	272982.836	371			

Discussion

The COVID-19 pandemic affected the educational systems globally, which resulted in digital teaching. The effects and outcomes of distance education during the pandemic era on teachers were intense. The present surveying study is also based on distance education. Globally, the COVID-19 evolved the educational system. Education has moved to digital schooling and teaching, and it's the best study program to continue the education system in real need (Abdullah & Mirza, 2020). It was not affordable to further delay the shutdown of the schools, colleges, and educational institutes. However, more than a few adverse effects came across in this fluctuating digital schooling system (Toquero, 2020). The conducted research nurtured the benefits and effects of digital schooling and teaching, and the research also describes the difficulties faced during digital schooling and teaching. However, every problem requires a solution; therefore, the conducted research also clarifies the problems and provides needed suggestions and solutions. The participants in this research study traced the essential advantages of distance education, the technology experiences, the networking teaching and schooling. The participants have become more skilled by learning to use multiple media to elucidate various courses. The results of this research coincide with other studies (Alan et al., 2020).

Teachers have considered digital schooling to be a better approach to convey their course content to learners during the pandemic. Teachers have gotten comfortable

with electronic resources and can communicate and manage advancements when they show their understudies. It appears that educators put more effort into specializing techniques to improve understudies' exhibitions (Bhaumik & Priyadarshini, 2021).

During their remote education meetings, the teachers announced a few hindrances they observed. The majority of these issues are associated with tools, the web, lack of learner motivation to gain from good ways, issues related to metropolitan students, a few understudies experience issues related to understanding out-of-class instructing, and some don't possess electronic devices. Different examinations likewise affirmed these outcomes (Bond, 2020). Normally, hardships and difficulties are unavoidable, while another procedure is without appropriate planning. Most instructors have not recently been occupied with remote education and have not utilized innovation to convey their course content. Like this, planning and preparing programs for the short and long haul might build mindfulness and raise learner encounters.

Conclusion

This study aims to examine the effects and consequences of distance education during the Coronavirus Pandemic in Pakistan. The study revealed that teachers acquired valuable benefits through digital schooling and teaching, especially in adopting technology at different levels. However, teachers faced some barriers while teaching from a distance; for instance, the most shared issue was remote connection problems. Lack of knowledge regarding online education was also one of the many problems faced by the teachers. It is possible to increase the usage of technology in education by adopting the suggested initiatives made in this study. The teachers proposed specific thoughts and ideas to further develop distance learning and to execute constant specialized help for all students, planning for presenting and conveying course content to students. In addition, teachers made different concepts to offer more assistance to help fulfill the instructive tasks, raising affectability towards distance learning and putting resources into a wide range of media to upgrade distance training. Tolerating such ideas might help build the advantages of distance training, and following every point stated in this research can help upgrade online schools to work on accomplishments. The institutional networks are responsible for contributing to the digital training society.

Recommendations

Future researchers can look forward to comparing the anticipated and resulting scenarios in this context.

As a future research suggestion, it is recommended to perform a thorough investigation to identify the effects of distance education on students with minimal or no remote connection and to provide a solution regarding the problem.

It is recommended to shape and direct your research according to the measurement period, particularly during a fiasco. It is important that the further conducted studies should be connected by the accumulation of research through composition and technology. In-depth searches should be made to classify the changes from before and after involvements of changes and their influencing factors. The factors of the conducted research and the influence attitudes are measured; Thus, it is recommended that future searches must be measured according to the area of the research in order to subdue the negative experiences during teaching technology. Proper references should be provided.

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