

THE IMPACT OF COVID 19 PANDEMIC ON EFFECTIVE LEARNING – SHARING A DEVELOPING COUNTRY'S EXPERIENCE

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ABSTRACT

BACKGROUND: Covid-19 has gravely affected almost all activities of life worldwide; education is no exception. To overcome this situation most educational institutes tried to change the mode of education from usual face-to-face learning to E-learning. **OBJECTIVE:** To determine the perceptions of students towards different modes of distant teaching and its impact on effective learning during the Covid 19 era. **METHOD:** That was a descriptive study that focused on the students of graduation level in Karachi, Pakistan in different private universities. Most of the students were taking online classes after the announcement of the Covid-19 pandemic. The primary data was collected through an online questionnaire from November 2020 to December 2020. All the students who filled the questionnaire at the time of collecting data were included in the study. Two universities were selected, the total number of students in both universities was 600. With the help of Raosoft software we calculate the sample size. The total Population of these universities was 600, according to software need 235 students as a sample size. We used SPSS for statistical analysis with a 0.05 level of significance. **RESULTS:** In our study, 57.4 % were male, and the remaining 42.6% were female respondents. As per responses, it was evident that before COVID-19 i.e. during the face-to-face study, the maximum use of digital tools in learning three to six hours, six to nine hours, and nine to twelve hours was just 28.9 %, 6.3%, and 1.47 % respectively. Whereas, due to online study, during the COVID-19 pandemic, the use of digital tools in learning for the same duration increased manifold to 40.2 %, 31%, and 8 % respectively. This prolonged use of digital tools affects the sleeping habits of students and also causes tiredness and exhaustion. According to responses mobile phone was commonly used for e-learning. During e-learning, students could not concentrate on study properly and get distracted easily. Distance learning resulted not only in isolation of students but long stay at home caused laziness. Students did not recommend the continuous learning model because that is unhealthy and caused stress, frustration, and depression and are one of the reasons for low academic performance and lead to confusion as compared to face-to-face interaction which boosts the student's performance. More than half (54%) students like and are comfortable with online quizzes and exams. **CONCLUSION:** It is concluded that in Pakistan, despite gaining colossal popularity nowadays, advanced innovative teaching has still not been comfortable for students in learning. Students are still more slanted towards face-to-face learning rather than e-learning. Educational institutes need to take essential measures for progressing online instructing quality to assist with better learning of students during the Covid 19 pandemic.

Keywords: Covid 19, Pandemic, Effect learning, E-learning

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Introduction

The first human case of the Coronavirus was reported by officials in Wuhan City, China in 2019. The World Health Organization (WHO) documented it as a pandemic due to its extensive transmission.¹ Lockdown on activities was required to limit the spread of the disease and reduce possibly new cases by maintaining social distancing in all public places.² It affected different perspectives of human exercises around the world, extending from teaching, sports, excitement, transportation, reverse, social gathering, interactions, economy, businesses, and legislative issues. Truly, the complete world is enduring as a result of COVID-19 pressures, the reality of the circumstance was challenging to bear, and the education segment remains one of the worst-hit by the Covid-19 event. Education institutions were amongst the foremost influenced amid this widespread. To overcome this situation all educational institutes changed the mode of education from face-to-face learning to e-learning during Covid-19 pandemic. We intended to see the level of acceptance of this mode by the students as well as its effectiveness.

Objective

To determine the perceptions of students towards different modes of distant teaching and its acceptability and impact on effective learning during the Covid 19 era. To evaluate if the e-learning method is the effective and complete replacement of face-to-face learning.

Material and Methods

This is a descriptive study which is focused on the students of graduation level in Karachi, Pakistan. Different private universities were selected where most of the students were taking online classes after the announcement of the Covid-19 pandemic. We focused on the effect of the excessive use of digital tools on university students and further investigated to see if there was a correlation between

the student's prolonged use of digital tools for e-learning before and after the pandemic. Before commencement of the study ethical approval was obtained from the university. Informed consent was obtained from each student for participation in this study. A Likert-type questionnaire in English was developed. This study contained three main sections.

The first one covered demographics whereas the other section had reports on the mental impact of COVID-19. The demographic information part aimed to gather information about gender, year of graduation and age.

The second section contained five main constructs. The first segment was involved with the frequency of usage of digital tools (laptop, mobile phone, Ipad) before and after COVID-19. This construct identifies the length of use, type of digital tools used before and after COVID-19, also if excessive use for academic purposes resulted in distraction. In the second section, we compared the sleeping habits of before and after COVID-19, and whether if frequent use of e-learning tools interfered with wake-up and bedtime habits.

The third section is aimed to see responses on the student's social behavior and the extent to which the lockdowns, closures, and curfews have impacted their routines of everyday life. The fourth section concentrated on the psychological state of students. This was rejected in cases of frustration, stress, tension, and depression. The last section seeks to probe into the effect of the above factors, namely social and psychological, on the student's academic performance and achievements. The data was collected through the online questionnaire. Students who filled the questionnaire were included in the study. Six hundred students from two private universities were selected. Raosoft was used to calculate the sample size, which came to 235 students.³ We used SPSS for statistical analysis with a 0.05 level of significance.

Results

Reliability Test:

Cronbach's Alpha measure of sampling reliability test value 0.639 or 63%. From the literature, the sample is adequate for further statistical analysis the ideal

value is >80% and the benchmark value is at least >50%. We have a 63% Cronbach's Alpha value which means our sample size adequate for further statistical analysis.

Sample adequacy test (KMO test):

KMO measure of sampling adequacy test value 0.64 or 64%. From the literature, the sample is adequate for further statistical analysis the ideal value is >80% and the benchmark value is at least >50%. We have a 64% KMO probability value which means our sample size adequate for further statistical analysis. (Overall 50 % is the minimum value for both Cronbach's Alpha and KMO statistics)

A total of 235 students responded to the questionnaire out of which 57 % respondents were male and the remaining 43 % were female. (Fig.1)

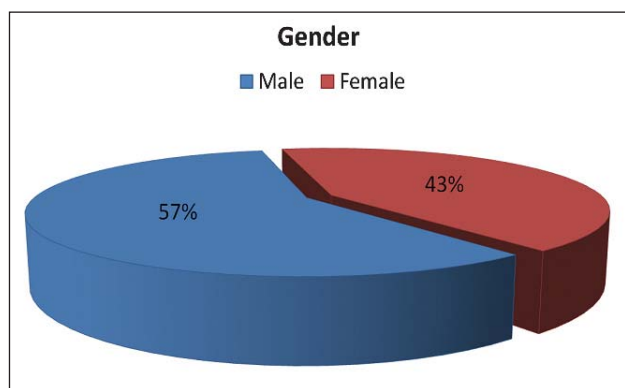


Figure 1

88 % of respondents belong to the age of 18-24, 9% of respondents belong to the age of 25-30, and the remaining 3% were above 30 years. (Fig.2)

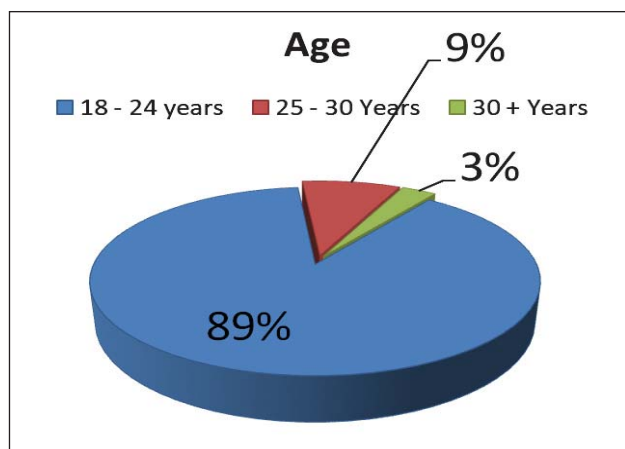


Figure 2

55.9 % of respondents belonged to the first year, 25.8% of respondents were from the second year, 9.2 % were from the third, and the remaining 9.1 % were from the fourth year. (Tab.1)

Level / Year	Percentage
First	55.90%
Second	25.80%
Third	9.20%
Fourth	9.10%

Table 1

As per responses, 70% of students used Mobile phones, 19% of students using laptops, 7.6% used personal computers and 1.4% used other tools for learning after the Covid pandemic announcement. During the face-to-face study, the maximum use of digital tools in learning from 1 to 3 hours, 3 to 6 hours, 6 to 9 hours, and 9 to 12 hours was just 63.4, 28.9 %, 6.3%, and 1.47 % respectively. Whereas, due to online study, during the COVID-19 pandemic, the use of digital tools in learning for the same duration was increased to 20.4, 40.2%, 31%, and 8% respectively. (Tab.2)

	Time calculation of digital tools in learning (%)			
	1 to 3 hours	3 to 6 hours	6 to 9 hours	9 to 12 hours
Before announcement Covid 19	63.4	28.9	6.3	1.4
After Covid-19	20.4	40.2	31.4	8

Table 2

Before Covid, 59.4 % of respondents were using digital tools for studying, 28.5% gave uncertain responses and 28.3 % of students were not using any digital tools for studying. In the Covid pandemic, the usage of electronic media significantly increased, 92.2% of students were using digital tools for studying, 4.6% gave uncertain responses and 3.1% of students were not using any digital tools for studying. (Tab.3)

	Always use following digital tools in studying		
	Agree	Uncertain	Disagree
Before announcement Covid 19	59.4	28.5	28.3
After Covid-19	92.2	4.6	3.1

Table 3

According to the responses, 65.9% of students were distracted and could not concentrate in the study when they use digital tools for learning, 18.2% of students have uncertain answers and the remaining 15.8% were comfortable with e-learning. (Fig.3)

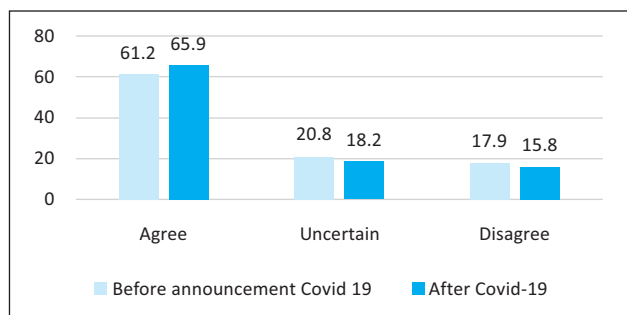


Figure 3

In the segment of the questionnaire regarding sleep habits, 43.3% of student's bedtime and wake-up time were affected, 21.1% of students gave uncertain answers and 35.5% of students felt comfortable during online learning. (Fig.4)

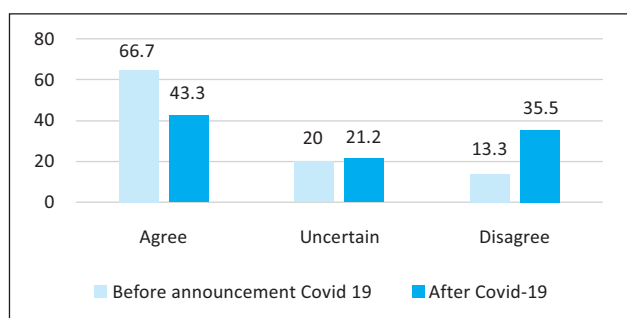


Figure 4

74.4% of students felt that sleeping habits were affected due to the use of electronic media in learning, 15.8% gave an uncertain answer and 9.8% were comfortable during e-learning. (Fig.5)

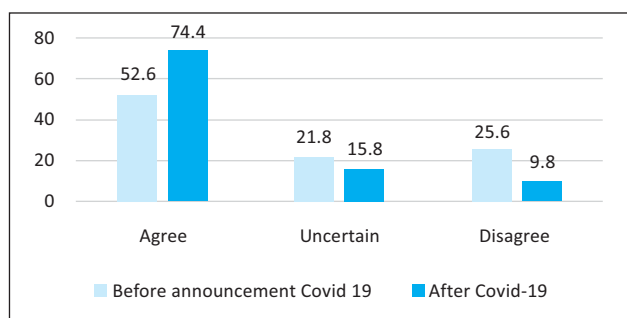


Figure 5

83.4% of students felt exhausted when they were using continuous electronic screens in studying, 9.7% gave uncertain responses and the remaining 6.9% were comfortable during e-learning. This segment of our questionnaire describes the student's social interaction and distance learning. (Tab.4)

Continuous exposure to electronic screens in online learning is tiring and exhausting.			
	Agree	Uncertain	Disagree
After Covid-19	83.4	9.7	6.9

Table 4

88.4 % of students responded that prolonged use of digital tools caused students isolation, 6% gave uncertainly and 5.6 % of students thought against this statement. 84.3 % of respondents felt that longer stay at home caused lethargy and laziness, 5.9 % give uncertainty and 9.8 % give a negative response regarding this statement. Regarding student's psychological state and distance learning, 56.9 % of respondents thought that boredom, nervousness, and tension were caused by the long use of digital tools, 13.7% were uncertain and 29.4 % gave negative responses regarding that question. 69.1 % of respondents felt that some students didn't have enough money to buy necessary digital tools, which is caused embarrassing and frustrating, 9.9 % were uncertain and 21% give a negative response regarding this statement. 71.4% of respondents did not recommend the online learning model because that model is socially and psychologically unhealthy, 11.1% gave uncertainly and 17.5% gave negative responses regarding this statement. 81.2% of respondents respond that lockdown was caused by COVID-19 resulted in stress, frustration, and depression, 9.1% give uncertain and 9.7% give a negative response regarding this statement. 65.2% of respondents felt that due to prolong usage of digital learning tools their academic performance was low, 17.2% were not sure and 17.6% gave negative responses regarding this statement. 54% of respondents felt confusion, frustration, and poor performance via e-learning assignments, 18.9% gave the uncertain answer and 27.1% gave negative responses regarding this statement. 83.7 % of respondents respond that face-to-face interaction contributes significantly to boosting

student's academic achievement, 12.4 % give uncertain and 3.9 % give a negative response regarding this statement.

Discussion

Due to the Covid pandemic mode of education changed from face-to-face learning to e-learning. In e-learning strong communication between instructors and students is a very essential part of effective learning in education. Teachers express their thoughts, information in different ways: by talking, gestures, and by written words.⁴ Modern advances have given more opportunities to associate with students. For a few year's teachers have been using digital media for teaching in different ways however the online learning due to Covid is different as compared to the use of digital media in regular classes and presentations.⁵ In Jordan, data was collected to analyze the psychosomatic impact of Covid-19 on e-learning through digital tools on university students and their well-being. The results stated that due to the pandemic Jordanian universities had to switch on to online learning/ teaching model as an alternative to the traditional face-to-face education system.⁶ According to the research result, most of the students were of the view that e-learning is not as good as face-to-face learning.⁶ The majority of the students said that e-learning is responsible for low performance in the exam and understanding.⁶ There are many challenges causing hindrance to the E-Learning process. The majority of the teachers, as well as students, were affected because of electricity, internet issues, and only half of the students had internet access for their online classes. A study performed in Ghana by questionnaires through 214 student respondents disclosed some challenges that students overlook because of their school's closure.⁷ Students were incapable of studying successfully from the home because their online system of learning was very worthless this was also due to internet quality as well as in insufficiency of the technical know-how to the technological devices by most Ghanaian students.⁷ Similarly, we also observed similar factors of student's dissatisfaction because of e-learning as many other psychological factors. During e-learning, there is poor concentration on studies and there is an easy distract-

tion as they are using mostly mobile phones where other applications maybe running as well as receiving calls or Whatsapp. Isolation of students is another stress factor causing laziness due to lack of routine. The student feels that e-learning is one of the reasons for low academic performance and leads to confusion and face-to-face interaction boost student performance.


Conclusion

It is concluded that although online classes are being frequently utilized in university students because of Covid, however, this is not accepted as a good replacement for physical classes. The majority of students enjoy online quizzes and exams but they are still not comfortable with regular online classes. We need to take essential measures for progressing online instructing quality to assist with better learning of students. Physical learning is more impactful than e-learning and we should promote it.

Conflict of Interest: Declared none by Authors.

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