



# Will Digital Learning Bring a Paradigm Shift in Education Era? -Future Prospects & Challenges

Ms. Shikha Goyal<sup>1</sup>, Research Scholar, Sharda University, Prof. (Dr.CMA, ACS) Pradeep Kumar Aggarwal<sup>2</sup>, School of Business Studies, Sharda University, Greater Noida

**ABSTRACT** – The outburst of Covid-19 led to lockdown in many parts of the world. The lockdown compelled various organizations to think of innovative processes so that they could continue functioning despite the barriers of lockdown imposed by the government. It led to the education industry switching over from the traditional classroom learning to online learning. The virtual methods of learning became immensely popular during this global pandemic. This study seeks to ascertain the challenges faced by school and college students during these virtual sessions. The study is qualitative in nature and Interpretative Phenomenological Analysis (IPA) is used to conduct this research analysis. The study was conducted among students from various schools and colleges across Northern India, who were divided into different categories as per their classes. Semi structured interviews were conducted amongst each category to collect information about the challenges faced by students while learning online. The findings led to conclude that there are four major categories of challenges faced by students. Challenges included difficulty in learning in home environment due to the presence of family members, sounds from surroundings, they found lack in organizational assistance like majority lacked access to proper devices and insufficient skills to adapt to online learning. Even a number of technical obstacles and personal issues like lack of motivation, sense of isolation made it challenging for students to learn online.

**Keywords:** Online learning, Covid-19, Pandemic, Coronavirus, Education, Students challenges, IPA

## 1. INTRODUCTION

Daily lives of millions of people were brought to a standstill, as the Covid 19 forced governments across the world to impose lockdown. On January30,2020 the World Health organization declared Covid 19 as a global health emergency of global concern. Further on March11,2020, it was declared as a pandemic. In a report published by the WHO and the World Bank the Covid 19 pandemic estimated an impact of 2.2% to 4.8% of global GDP. According to Oxford Economics India will be one of the worst affected economies in the world post Covid-19. The Indian Monetary Fund forecasted that the GDP would shrink to 10.3% in the year to March 2021 as Government of India announced the lockdown which interrupted the entire economic activities of the country.

The Covid 19 pandemic has affected all sectors ranging from manufacturing units to service sectors such as hospitality, aviation, tours travel, real estate, education and others. As per a report by UNESCO, in around 165 countries worldwide, the pandemic had impacted nearly 63 million teachers. Around 1.3 billion students were unable to go to the school or college of which 32,07,13,810 students were estimated to be from India. (UNESCO, 2020). The social distancing norm and the lockdown imposed by the government interrupted the progress of the students.

NWEA (Nonprofit testing organization) forecasted that learners have lost nearly a third a year in reading and half a year in Math. Similarly, CREDO, forecasted that an average student loss would vary from 136-232, depending on the state of the student. Another Consulting firm, McKinsey estimated that learners would have lost around three months to a year of learning due to this pandemic.

Government of India imposed a nationwide lockdown as a precautionary measure against the pandemic. The lockdown limited the movement of entire 1.3 billion people. MHRD also to support Government's decision, during the second week of March20 announced the shutting down of all educational institutions in India, to prevent the spread of coronavirus. Thousands of online courses, including degree and certificate programs were offered by universities worldwide so as to bridge this gap. Various online learning platforms were initiated by the "MHRD such as National Programme on Technology Enhanced Learning, Study Web for Active Young Expiring Minds (SWAYAM), e-Pathshala, DIKSHA portal, SWAYAM Prabha, National Repository of Open Educational, etc. for students so that undisrupted learning amongst students can continue and students can capitalize and continue their learning during such times of crisis." (MHRD, 2020a) The ministry suggested higher educational institutions to teach virtually, by which social distancing norms were also practiced and the loss in learning was minimized. This led to educations traditional teaching model taking a backseat and newer learning and teaching methods being accepted by the students and teachers.

The students and teachers participated in the new innovative educational methodologies. This dramatically changed education whereby teaching was undertaken remotely on digital platforms, enabling the teacher to work out of home like IT executives. Teachers and students used this new form of education: from video conferencing tools to the humble smartphone, enabling technology to take over education. Both teachers and students worked hard to use technology to support the idea of virtual teaching and learning, exploring platforms such as ZOOM, Google Meet, Skype and MS teams, Moodle to deliver online lectures. Teachers went ahead supported teaching making use of platforms like WhatsApp, YouTube and google hangouts All private and government educational institutions offered online classes to support learning during the period of crisis.

Since online teaching is not a very popular concept in India, most students and teachers were not well versed with the online platforms, regarding teaching and assessments. Most of them faced challenges like adaptation to new software's, lack of infrastructure like poor networks, unavailability of laptops to study at home.

Online studying at home has different challenges for the students as compared to the challenges faced by them during traditional university learning. This research aims to find the challenges faced by students during online learning in Indian context.

## 2. REVIEW OF LITERATURE

Even before the emergence of Covid-19, education industry witnessed high growth and adoption of new technological methods. In 2019, the global EdTech investments reached US\$18.66 billion in 2019 and were estimated to reach \$350 Billion by the year 2025. A significant rush has been witnessed in the usage of online learning software's, video conferences, video lecture sessions since Covid 19.

In 1995, the term online learning was used for the first time when WebCt was advanced as the first LMS (learning management system). "Online learning was more about using LMS or uploading pdfs and text files online" (Bates, 2014). Online learning has been termed as blended learning, e- learning, online courses, online education. Online learning is defined in a number of ways by different authors. Bates,2001 defined it as, "it is unclear what generally passes for online learning in most cases – placing course materials on the Web or in class management tool such as WebCT or Blackboard." Similarly, "In the higher education context, the phrase online learning is often interpreted as referencing courses that are offered completely online; however, there has been increasing use of blended approaches that combine online activities and face-to-face instruction over the past decade (Crawford et al., 2014; Graham, 2006). (Ryan et al., 2016)". Similarly, (Fazlollahtabar & Muhammadzadeh, 2012) defined it as, "an innovative approach to the delivery of educational services through

electronic forms of information that enhance knowledge, skills, and other outcomes of learners.” Authors, (Beqiri, Chase, & Bishka, 2010) have defined it as, “the use of modern ICT and computers connected to the Internet to provide teaching and learning contents.”

Primitive research conducted by researchers (Grundmann, Wielbo, & Tebbett, 2010; Januszewski & Molenda, 2007; Zen, 2008) on the adaptation of technology for learning purposes shows that there is strong link between effective learning and face to face instructions. With progressing times students are not seen as mere receptors of learning but are viewed as biggest contributors and constructors of knowledge. With technology playing a major role in imparting knowledge a smooth transition from controlled learning environment to a supportive learning environment has been possible. (Januszewski & Molenda, 2007).

A research by Pew Research Center (2011) shows that in the academic year 2010-11, 89 percent of four-year colleges and universities offered courses taught fully online, or hy-brid/blended online, or other forms of distance/non-face-to-face instruction (Parker, Lenhart, & Moore, 2011). Of all students enrolled in higher education in 2013, 32 percent took at least one online course (Al-len & Seaman, 2013). The concept of online education has been prevalent in United States in the last two decades and many HEI's consider that this method will make a significant contribution in future. (Allen & Seaman, 2014). “The affluence of access and flexibility of these courses has made online education an integral part of the higher education.” (Li & Irby, 2008; Luyt, 2013; Lyons, 2004). Researchers suggest that, “internet is a flawless instrument of learning that offers flexibility and expediency to learners at the same time offering endless opportunities for innovate teaching.” (Applebome, 1999; Moos and Azevedo, 2009; Zhang et al., 2004; Huddlestone and Pike, 2008; Wang and Wang, 2009; Hardaker and Singh, 2011; Macharia and Pelsner, 2012).

The prospects that online education offers to the teachers and students is immense. (Konetes, 2011). Online learning can be better than traditional learning with good course design, flexibility can untangle the geographical limitations to education (Chen et al., 2006). Various studies have steered this field to examine the quality of education imparted through virtual mode.

Previous researches have focused on problems faced by teachers while teaching online. Research by Gratz and Looney (2020) examined the ability of faculty members to teach online and their opposition to reform in Los Angeles, where teachers indicated that they lack online teaching skills, lack of time for online course planning, and their subject or course is not appropriate for online teaching. Similarly, researchers Arora and Srinivisan (2020) identified challenges faced by teachers while teaching online. They found network problems, lack of experience, a lack of proficiency in handling online classes, a lack of interest, less participation, a lack of personal contact and a lack of engagement as major challenges while teaching online.

Although a consistent increase has been an increase in the number of students who enrolled for online programs, but the challenges still remain. Some students fail to engage in digital learning without reliable internet connections and/or technology; this difference is seen across countries and across income brackets within countries. For instance, although 95 percent of students in Switzerland, Norway, and Austria have a computer to use for their schoolwork, according to OECD data, only 34 percent in Indonesia do. There is a substantial difference between people from affluent and deprived backgrounds in the United States: while almost all 15-year-olds from a privileged background said they had a device to run on, almost 25% of those from disadvantaged backgrounds did not. Although some schools and states, such as in New South Wales, Australia, have been supplying digital equipment to students in need, many more need to do so. Similarly, a research conducted by ASER in 2020 in late September, 2020 shows the pattern of education in rural India during pandemic times. ASER reported that a shift from private to government schools is observable in both male and female students of all age groups and all grades. When ASER tried to find whether the number of students who have enrolled in 2020 has changed, the findings revealed that for the students in age group of 6-10 years there has been an increase in the proportion of students who have not enrolled for 2020-21 as compared to 2108-19. Similarly, its findings showed that in 2020-21 there was an increase in the proportion of children who had access to smart phones in rural India. However, this research is aimed to find the challenges faced by the students living in Urban regions of Northern states while learning online in Indian context.

### 3. OBJECTIVES

The literature cited above has failed to find out the challenges faced by students while studying online. This triggered researchers to consider the challenges faced by students in learning online as an emerging topic. Thus, major objective of this research is to figure out the challenges faced by students in virtual learning and to make suitable recommendations to overcome these challenges, so that online learning is able to meaningfully contribute in the lives of students who undertake online education.

### 4. METHODOLOGY

Interpretative phenomenological analysis technique has been used to analyze the responses. IPA is a qualitative approach aimed at offering evaluations of personal experiences. It focuses on an individual's experience and does not generalize it on the basis of pre-existing concepts (Smith J. A. and Osborn M, 2015). IPA interviews were subjective that provided an opportunity to the researcher to understand interpretation of participants that have resulted from their experience and interest in a specific process. (Smith and Osborn, 2008). In this study, IPA is used to understand the student's perspective about challenges and opportunities posed by online education during pandemic times, where lockdown made it mandatory for students to learn from home using online sessions.

This research was conducted among school and university students from all across India. To get the opinion of students from all classes separate levels were created. For each level separate semi structured interviews were conducted on Zoom to collect information from the students about the opportunities and challenges faced by them during online classes that were conducted during Covid 19. Separate class groups were created, nursery to class one was grouped as Group1, second to fifth standard students were grouped as Group 2, Fifth to ninth were group3, ninth to twelfth were Group 4, Undergraduate students formed group 5, post graduate formed group 6, and doctorate students were Group 7. Each group had 3, or 5 participants. For class Pre nursery to Ist standard, mothers were interviewed to know the perspectives. 5 groups had 3 respondents and 2 groups had 5 members each. Total 25 students who took online classes during COVID-19, participated in this research study.

## 5. DATA ANALYSIS

The data was analyzed as per the process defined by Smith and Osborn(2003) and Moustakas (1994) for analyzing interview data .

In the first stage all interviews were recorded and were transcript. The transcripts were carefully read and meaningful terminologies were recognized to identify the challenges faced by students while learning online. All terms that provided insights for “barriers and challenges in online learning” theme was marked. Secondly, notes were prepared based on the transcripts and all themes that were identified were simultaneously noted on the transcripts. Thirdly the identified themes were separated and were further analyzed for examining associations amongst the clusters. Lastly these clusters were grouped and a table including all themes and subthemes was noted.

After analyzing all the interview data four major themes emerged

1. Learning environment in home settings
2. Organizational Assistance
3. Technical Obstacles
4. Personal Struggles

## 5. FINDINGS

After analysis of the 25 interviews the findings are reported in this segment. All findings have been clubbed under 4 themes, learning environment in home settings; organizational assistance; technical obstacles; personal struggles.

### 5.1 THEME1: Learning environment in home settings

Numerous factors affect the student learning when they learn from home instead of the traditional learning in school or universities. Factors such as distraction due to the presence of family members, disturbance due to external factors were some barriers identified in the learning environment at home.



### 5.1.1 Distraction due to presence of family members

Respondents stated, “My mother keeps coming in my room to check if I am hungry while I am in class (Participant-7), Similarly, another respondent stated, “My younger brother keeps talking to me while my online class is in progress.” (Participant 11). Furthermore, a student stated, “My father’s news channel noise was a continuous disturbance in attending online sessions.” (Participant 13).

### 5.1.2 Disturbance due to external factors

Few respondents stated that there were external factors that made it difficult learning online. Participant 16 stated that, “The loud music playing in the neighborhood was a big disturbance.” Similarly, Participant 8 stated that, “The smell of my mother’s cooking food and the blowing of whistles in pressure cooker was a distraction, made me move out of the classes to check-out what’s cooking.” Participant 19 Stated that, “Phone calls and notifications on the phone from other applications made me distracted in attending online sessions.” Similarly, Respondent 20 stated that, “my dog barked and cried while I closed my room to attend online classes initially.”

## 5.2 THEME2: Organizational Assistance

The respondents mentioned a lack of organizational assistance in adapting the new innovative methodology of online learning. Factors such as inadequate skills to attend online sessions, lack of access to proper device and cost of data for content consumption were certain challenges that hampered the online learning.

### 5.2.1 Inadequate skills to attend online sessions

Most participants mentioned that they lacked the adequate training to attend online sessions as they were not very familiar with the virtual sessions. Most students stated that the lockdown compelled them to learn from home without any assistance given by the institutions. Participant 15 stated that, “our school initially scheduled classes on Zoom, but I did not know how to attend classes on it. The initial days were a big struggle, figuring stuff from how to share screen, to how to keep muted.” Another respondent 17 stated that initially different teachers used different platforms like LMS, Google meet and Zoom which made it all the more difficult in keeping track of online sessions. Some teachers shared material on WhatsApp, some on mails and some on LMS.” Respondent 21 stated that, “many a times my camera and mic on the mobile phone were turned on, and I was unable to close and therefore had to turn off that data connection to avoid embarrassing situations.”

**5.2.2 Lack of access to proper device** Many students reported that they had to attend lectures through mobile as they did not have access to a laptop or computer at home. Specially the school going students mentioned that they were dependent on their parents for technical assistance. They attended sessions through their parents mobile or their laptops, if parents had no official work to do during the class timings. Respondent 10 mentioned that, “I being a child of working parents, I often missed online classes as I had no access to mobile or laptop most of the days, as parents were working online.” Similarly, Respondent 13 stated that, “my laptop did not have battery backup and at times of power failure, I got disconnected from the class.” Another respondent 22

stated that, “While attending lectures online through mobile, I lacked the necessary skills of typing on phone and often missed submitting assignments.”

**5.2.3 Cost of Data for content consumption** Many students mentioned that a big hindrance was the cost of data for content consumption. Respondent1 mentioned that, “being a son of a single parent from rural areas major hindrance was the inability to get the mobile recharged for internet usage. The data packages were never sufficient to attend lectures.” Similarly, Respondent 8, mentioned “nearly 1 GB data got exhausted each day, in attending lectures online- an added financial burden.”

**5.2.4 Human Contact was Missing** Students mentioned a lack of human contact as everything took place electronically. Respondent 6 stated that, though the school tried all possible ways to ensure proper learning takes place in these odd situations also but I missed the physical presence of my teachers around me. The discipline in the class, was usually compromised.’ Similarly another respondent 9 stated that during regular learning we even had our school teachers and coaching mentors guided us physically near us, but the online learning is a disappointment, especially when the teachers do not switch on their cameras.”

**5.3 THEME3: Technical Obstacles** During the research analysis another theme that emerged was the technical obstacles varying from lack of infrastructural support to online learning platforms and security concerns

**5.3.1 Lack of infrastructural Support:** Students stated that they suffered internet band-width and connectivity issues. Lack of proper earphones and mics, camera were major issues faced by them. Respondent3 stated that my mobile network keeps fluctuating, thus I get continuously disconnected from the class.” Respondent 6 mentioned, “major issue was the absence of a stable flow of electricity and high-speed internet, wi-fi would take too long in getting started when it restarts after power failure.” Respondent 9 stated,” Large files were a big issue, as band-width is low.” Similarly, Respondent 17 stated that,” the network at my place is poor, which caused immense trouble in attending online sessions. The earphones were another cause of concern.”

**5.3.2 Issues in Online Learning Platforms:** Students were confused about these platforms that the schools used for the online classes. School students mentioned dependency on their parents in downloading of apps. They also stated that the educational institutions did not provide any training for the same. Respondent 2 mentioned that, “My mother received a YouTube link on how to install zoom and its application, but still we were not very comfortable using it.”. Similarly, Respondent 4 mentioned a WhatsApp message from faculty regarding classes being scheduled on LMS- BB button, but being a first-time user, I managed my initial classes with difficulty.”

**5.3.3 Security concerns:** Students were also not comfortable attending online classes for security reasons. They feared issues related to privacy and virus attacks. Most of them found Zoom an unsecure application whereas LMS(Moodle) being licensed bought was felt secured by students. Respondent 10 mentioned, “Initially I use



my father's official laptop to attend classes and make assignments but then with news circulating about it being unsecure, my father didn't permit me to attend classes using his laptop."

#### **5.4 THEME 4: Personal Struggles:**

Most students were unhappy and unsatisfied with the concept of online classes. They lacked motivation and missed group studies with counterparts. They mentioned a lack of access to the personalized touch of teachers to make curriculum easy and understood in the regional or Hindi language. They said a major issue was the content being shared in English. Similarly, the female population mentioned a biasness of parents to make classes convenient for their brothers and specified unavailability of necessary requirements.

**5.4.1 Lack of Motivation:** Many students found that the new format for online classes has impacted their motivation negatively. They feel less attentive and lacked the necessary motivation to participate in these virtual sessions. Respondent 5 mentioned, "Its easy staying unmuted and chatting with friends, I gave up interest in these classes." Another respondent 12 said, 'I lost interest within a month of online sessions, it was kind of formality logging in, for attendance sake, I could hardly understand what the teachers spoke.' Another respondent 14 mentioned that, "it took more efforts to attend online sessions. I just couldn't attend despite trying for weeks."

**5.4.2 Sense of Isolation:** Students found the online sessions non engaging and felt isolated studying at home. Respondent 5 stated that, "there's often no interaction between students, it is usually one-way communication which makes it uninteresting." Respondent 14 stated that I missed my friends' company, it was fun studying together in the college, I miss the cafeteria and sitting and studying at home is boring." Similarly, respondent 24 stated, that "Our group assignments and presentations suffered the most, there was no coordination."

**5.4.3 Inability to focus on screens:** Many students found focusing on screens for long durations as the most challenging aspect of online classes. Respondent 20 stated that, "it strained my eyes being glued to my iPhone 5 S for the online sessions conducted by my university." Similarly, a mother of a prenursery class child stated that, "I was worried for my kid being viewing the screen for nearly 2 hours on a regular basis. We've never exposed him this long on these screens."

**5.4.4 Gender Inequality:** The penetration of online learning amongst the female population in the rural parts of India is even more taxing. Just like most domains, the availability of internet and literacy in rural India is primarily available to men. Respondent 24 stated, that, "I feel extremely sorry that I being a female do not get the same privileges as my brother, he was fortunate to attend lectures on the only phone my family could afford."

**5.4.5 Language Barriers:** There is a very low percentage of Indians that speak and are able to comprehend English language. There are few sources on Internet that provide standardized content in Hindi and other regional languages. The students felt uncomfortable in understanding content shared by teachers whose primary language was English. Respondent 25 said, ‘Most of the time the teachers shared YouTube videos which were very difficult to understand, the content was in English with US accent.’ Similarly, Pre nursery class child’s mother stated, ‘I made my child seek admission in an English medium school because we never went to an English convent school, but the sessions taken by teachers were in English which made me uneasy, I found English challenging.’

**5.4.6 Health Issues:** Students faced challenges in terms of health. They felt uneasy being continuously learning digitally. Many students spoke about eye issues and back issues. Respondent 11 stated that, ‘I was nearly sitting in my room and learning online, but over a period of time my back started hurting. There was limited physical movements, that made me gain weight and these health issues surfaced.’ Similarly, Respondent 24 stated that, ‘long hours not only stressed the eyes but there were frequent headaches that made it difficult learning online.’

**5.4.7 Zero Classrooms:** Many students spoke that they felt that their learning process was hampered as though they were not a part of any schools. Mother of a pre nursery class child spoke, ‘I got my child admitted in pre nursery this year, but before my child could go to school, lockdown was announced. All classes were online and required us to be present and make the child learn. But since my husband and I had to work from home we didn’t have time to make the child attend sessions online. So eventually I ended up withdrawing my child’s name.’ Similarly, Father of three kids stated, ‘I have twins and an elder son all going to school, but I could just afford a smart phone for my elder kid, both young ones did not have any mobile or laptop by which they could attend classes regularly. Once in a while when the elder one had free lectures, we would make our young one join classes.’

**5.4.8 Inability to cope up with the pace of class:** Students also stated that despite attending regular classes online, the learning was not the way it was earlier. Respondent 15 mentioned that, ‘these Zoom sessions end up immediately as 45 mins duration is completed and our next class starts. I miss the interaction of 5-10 mins with my friends in which we use to discuss the concept, or in case I had a doubt it was often cleared then and there either with the teacher or with batchmates. But now we are more involved in connecting to the next class as the teacher would not permit us to join the class after a certain duration. So, the doubts keep on getting piled up.’ Similarly Respondent 20 stated that, ‘I am a slow writer, so I am unable to copy the notes shared on the screen. Earlier I had the benefit of copying even when the class was over. The blackboard was there with notes on it even after the class got over. But here the screen is limited and I being a slow writer miss my notes a lot, that keeps on adding to the trouble of completing them with screenshots, after my classes are over.’

**Challenges as identified by students while learning online**

S.No	Home Environment	Organizational Assistance	Technical Obstacles	Personal Struggles
1	Distraction due to presence of family members	Inadequate skills to attend online sessions	Lack of infrastructural Support	Lack of Motivation  Sense of Isolation
2	Disturbance due to external factors	Lack of access to proper device	Issues in Online Learning Platforms	Inability to focus on screens
3		Cost of Data for content consumption	Security concerns	Gender Inequality
4		Human Contact was Missing		Language Barriers
5				Health Issues
6				Zero Classrooms
7				Inability to cope up with the pace of class

**6. DISCUSSIONS:** The students encountered numerous problems while learning in the home environment. Discipline and commitment both are integral parts of learning, but the presence of family members, background noise had a negative impact on the learning. The learning process is hampered because of interruption from family members, or noise from neighborhood. The learning at home environment has an adverse effect. Students learnt using institutional supported technology like LMS (Moodle), MS teams or open-source platforms such a Zoom, Duo, Meet, but faced technological glitches. A proper learning environment i.e. free from the distractions posed by family members and noise in surroundings should be available so as to make learning convenient and effective at home.

The second important parameter that posed challenges for online learning was the lack of institutional support for online learning. Certain students specified increased difficulty as they were less tech-savvy. School students who had technically sound parents did not encounter challenges with software handling, but for others varied software usage by different teachers, where the school did not have an institutional supported system was an issue. Challenges with proper device, data costs added to the trouble that students faced. Therefore, institutional support can make online learning stress free and a single software for the delivery of lectures can make the task easy and convenient for students and parents with non-technical backgrounds. Classroom learning is extremely important and its importance cannot be denied. This global pandemic has proven that despite being important, students are not yet adaptive and ready to handle online learning.

The situation of Pandemic caused the students to learn online. But the online learning for students was challenging. Another challenge that students faced in virtual sessions were the technical obstacles. Students were apprehensive in using certain software's as they had concerns with regards to security, phishing attacks and had data issues. They also faced problems in storing and uploading numerous files, unavailability of hardware devices like printer, headphones and web cameras and proper network connections.

Personal challenges were also confronted by students while studying online. Many of them lacked motivation, found it difficult focusing on the screen for hours, some found it extremely boring and others complaint about sense of isolation while studying virtually. Students were forced to join online sessions from their schools and colleges, which resulted in the development of a negative attitude. They found it easy joining the sessions and leaving it on mute, as there was no accountability. A mere excuse of network issue or unable to switch on mic was given as an explanation for not being participative. Furthermore, students faced challenging situations with numerical and practical courses. Thus, to make online learning effective, it is important to address these personal barriers. Students need to be actively engaged in online learning processes by creative ways, like the most participative Student in online classes, or bonus marks for each time you respond in class.

## 7. CONCLUSION

The world has shaken to the core due to the terrifying impact of COVID-19 pandemic. Countries across the globe had to close all academic establishments so as to protect teachers and students from the COVID-19 Pandemic. The nationwide lockdown imposed by the government led the education industry adopting a tech savvy path. The concept of education has changed overnight, from the traditional chalk and duster method to the digital sessions. The online classes have turned up to be the new normal. But the concept of online learning still seems to be in its early stages in developing countries like India. In India, the learners going from school going kids to post graduate college students, were forced to adopt online classes. Though the traditional mode of teaching cannot be replaced with online learning, but the role of technology in imparting education at such times of crisis, cannot also be ignored. To make online learning impactful and meaningful, it is required to provide students with the technical infrastructure, training to handle software's. This paper identifies the gap between online learning and conventional learning. Since the future of education seems to be more technology driven, India must gear up for requisites such as training to students, proper devices to support online learning. With the growing need of Online education, an effective educational practice is required for overall development of young minds. A well rounded online educational system will help develop competencies that will ensure progress of youth in terms of productivity, employability and success in years to come.

## 8. PRACTICAL IMPLICATIONS

This study can prove helpful to students who plan to adopt online learning as a regular activity in the future years to come. The challenges identified in this study can be considered well in advance and accordingly a strategy to cope up with these challenges can be devised. The future of online learning is promising, but only if the needs of evolving learners are rightfully met. Traditional learning had crested a somewhat constricted environment that needs to be customized. This study can thus help explore challenges faced by students so that feasible solutions can be developed and a collaborative learning space can be created for students.

## 9. SUGGESTIONS

Darkest hour is usually closest to the dawn, even the Covid19 pandemic has ignited a realization globally that our current education system requires alteration. Our perception regarding what's normal is shattered and the new normal of integrating traditional and online learning is now becoming widely accepted. Learning is acquiring knowledge, but it need not necessarily be done by age old methods, which does not utilize the full potential of the human brain. Institutions should try to make students learn through experiences. Researcher, (Gallagher & La-Brie, 2012) also stated that the market for online education is increasing and it will enter the mainstream and will be easily accessible to more people. Learning can become better if implementation of technology is blended with approaches like integrated learning and learning through experiences. Furthermore, to make online learning efficient, India needs to establish a sound infrastructure like is done by most countries abroad. Researcher, (Ayebi Arthur, 2017), conducted a case-based study of a college in New Zealand and

highlighted the importance of a robust IT infrastructure as a prerequisite to online learning. The lockdown during this crisis has bothered the entire education industry. It led to the realization that the students are not completely digitally groomed. It is suggested that infrastructure requirements need to be prioritized while taking into consideration the increasing importance of technology in education. The Government should align courses with technology. Institutions should be considerate about the fact that most rural areas do not have proper access to the internet facilities, and laptops and smartphones. In order to enhance the digital infrastructure of the country the Government of India should try to maintain socio economic equity. Students can be supported financially by giving them interest free loans to buy computers, laptops. This can well equip the students to meet the requirements of online learning. The government can even tie up with IT companies and educational institutes in order to resolve issues related to technical infrastructures. If the Government can help combat these digital limitations and is able to develop rural areas digitally, the effectiveness of online learning will improve many folds.

The Pandemic has taught us a hard lesson, that change is the only constant. Emphasis needs to be given on developing a culture that promotes innovation and research on the academic front. The Covid 19 situation has enhanced this journey by moving the classes online. In the new normal, education will see dynamic changes and online education system will continue to grow as an important requisite for learning. Educators should explore creative methodologies to engage students and create appealing and interesting learning environment. Educators can enhance online learning experience by personalization of content, and engaging learners by greater participation from them. In order to make online learning effective it is important that proper compilation of data regarding different subjects is done. Educators should nurture significant learning spaces, so that student's creativity and analytical capabilities are improvised. Lastly what matters is a smooth learning space that encourages an energetic learning community that is open to differences in opinions and pandemonium of voices. "Often online educators are also termed as Facilitators", Brindley et al., 2009; Crawford-Ferre & Weist, 2012; Gabriel & Kaufield, 2008; Keengwe & Kidd, 2010; Rao & Tanners, Online Education and Its Effective Practice 172 2011), i.e. people who facilitate a smooth learning process, foster creativity and encourage analytical skills amongst learners.

Saba, 2012, specified that one of the biggest challenges with online learning is that it neglects the requirements of the students, a suggestion would be to understand the needs of students studying online, may be offering them differentiated online instructions across the curriculum. Furthermore, educators to make online learning more effective and impactful can undertake studies to find what motivates students to undertake online courses- may be by encouraging more group studies, or by bridging differences in terms of ethnicity, learning abilities etc. To access the advantages of online learning like affordability, flexibility we need to overcome these limitations and challenges so that online learning becomes fruitful in the long run.



**LIMITATIONS:** This study focused on the challenges faced by students while studying online. A major limitation of the study is that the teacher's perspective was not taken into account. Another limitation was that the study was restricted to a few states of North India which included Punjab, Haryana, Uttarakhand, Uttar Pradesh, Rajasthan and Delhi NCR. The study was further limited to a few participants. A future study could take students from different countries and could also include teachers to find the challenges at both ends.

## REFERENCES

- Abad-Segura, E. , González-Zamar, M. D. , Infante-Moro, J. C. , & Ruipérez García, G. (2020). Sustainable management of digital transformation in higher education: *Global research Trends. Sustainability*, 12 (5),2107.<https://doi.org/10.3390/su12052107>
- Akkoyunlu, B. , & Soylu, M. Y. (2006). A study on students' views on blended learning environment. *Turkish Online Journal of Distance Education*, 7 (3), 43–56.
- Allen, I. E., & Seaman, J. (2013). Changing course: Ten years of tracing online education in the United States. San Francisco, CA: Babson Survey Research Group and Quahog Research Group LLC.
- Allen, I. E., & Seaman, J. (2014). Grade change: Tracking online education in the United States. Newburyport, MA: Sloan Consortium.
- Arora, A.K. and Srinivasan, R. (2020), "Impact of pandemic COVID-19 on the teaching-learning process: a study of higher education teachers", *Prabandhan: Indian Journal of Management*, Vol. 13 No. 4, pp. 43-56.
- Ayebi-Arthur, K. (2017). E-learning, resilience, and change in higher education: Helping a university cope after a natural disaster. *E-Learning and Digital Media*, 14(5), 259–274. <https://doi.org/10.1177/2042753017751712>
- Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 coronavirus (Covid-19) pandemic in Georgia. *Pedagogical Research*, 5(4), 1-9.
- Bates, A.W. (2001) Beyond button-pushing: using technology to improve learning, in R. Epper & A.W. Bates (Eds) *Teaching Faculty How to Use Technology: best practices from leading institutions*, Westport: American Council on Education/Oryx Press, 141–152.
- Bates, T. (2014). A short history of educational technology. Retrieved from <https://tonybates.wpengine.com/2014/12/10/a-short-history-of-educational-technology>
- Boczkowska, K. , Bakalarski, P. , Sviatoslav, M. , & Leszczyński, P. (2018). The importance of e-learning in professional improvement of emergency nurses .

- Beqiri, M., Chase, N., & Bishka, A. (2010). Online course delivery: An empirical investigation of factors affecting student satisfaction. *Journal of Education for Business*, 85, 95–100. <https://doi.org/10.1080/08832320903258527>.
- Bhuasiri, W., Xaymoungkhoun, O., Zo, H., Rho, J. J., & Ciganek, A. P. (2012). Critical success factors for e-learning in developing countries: A comparative analysis between ICT experts and faculty. *Computers & Education*, 58(2), 843–55. <https://doi.org/10.1016/j.compedu.2011.10.010>.
- Brindley, J., Blaschke, L. M., & Walti, C. (2009). Creating Effective Collaborative Learning Groups in an Online Environment. *The International Review of Research in Open and Distributed Learning*, 10(3). <https://doi.org/10.19173/irrodl.v10i3.675>
- Chen, C. C., & Yang, S. C. (2006) The efficacy of online cooperative learning systems, the perspective of task-technology fit. *Campus Wide Information Systems*, 23(3), [www.emeraldinsight.com/1065-0741.htm](http://www.emeraldinsight.com/1065-0741.htm)
- Cameron, E. , & Green, M. (2019). Making sense of change management: A complete guide to the models, tools and techniques of organizational change . *Kogan Page Publishers*.
- Wiest, Lynda. (2012). Effective Online Instruction in Higher Education. *Quarterly Review of Distance Education*. 13. 11-14
- Demirbilek, M. (2014). The ‘digital natives’ Debate: An Investigation of the digital Propensities of University students. *Eurasia Journal of Mathematics, Science & Technology Education*, 10 (2), <https://doi.org/10.12973/eurasia.2014.1021a>
- Eastern Mediterranean University . (2020). Visual Arts and Communication Design Department: EMU Visual Arts and Communication Design Department’s Contribution to Health Workers. Retrieved November 3, 2020
- Fazlollahtabar, H., & Muhammadzadeh, A. (2012). A knowledge-based user interface to optimize curriculum utility in an e-learning system. *International Journal of Enterprise Information Systems*, 8(3), 34–53.
- Gallagher, S., & LaBrie, J. (2012). Online Learning 2.0: Strategies for a Mature Market. *Continuing Higher Education Review*, 76, 65-73.
- Gratz, E. and Looney, L. (2020), “Faculty resistance to change: an examination of motivators and barriers to teaching online in higher education”, *International Journal of Online Pedagogy and Course Design* ( Design, ), Vol. 10 No. 1, pp. 1-14.

- Grundmann, O., Wielbo, D., & Tebbett, I. (2010). The implementation and growth of an international online forensic science graduate program at the university of Florida. *Journal of College Science Teaching*, 40(1), 34-40.
- llen, I. E., & Seaman, J. (2014). Grade change: Tracking online education in the United States. Newburyport, MA: Sloan Consortium.
- Jackson, L. C., Jones, S. J., & Rodriguez, R. C. (2010). Faculty actions that result in student satisfaction in online courses. *Journal of Asynchronous Learning Networks*, 14(4), 78-96.
- Januszewski, A., and Molenda, M. (Eds.) (2007). Educational technology: A definition with commentary. Definition and Terminology Committee of the Association for Educational Communications and Technology. P 1-14, New York, NY: Routledge.
- Jun, J., & Park, J. H. (2003). Power relations within online discussion context: Based on adult international students' perspective and their participation in the learning context.
- Kavita Rao, Patricia Edelen-Smith & Cat-Uyen Wailehua (2015) Universal design for online courses: applying principles to pedagogy, *Open Learning: The Journal of Open, Distance and e-Learning*, 30:1, 35-52, DOI: 10.1080/02680513.2014.991300
- Konetes, G. D. (2011). Distance education's impact during economic hardship: How distance learning impacts educational institutions and businesses in times of economic hardship. *International Journal of Instructional Media*, 38, 7-15.
- Koohang, A. (2009). A learner-centered model for blended learning design. *International Journal of Innovation and Learning*, 6(1), 76-91.
- Li, C., & Irby, B. (2008). An Overview of online education: Attractiveness, benefits, challenges, concerns, and recommendations. *College Student Journal*, Part A, 42, 449-458
- Luyt, I. (2013). Bridging spaces: Cross-cultural perspectives on promoting positive online learning experiences. *Journal of Educational Technology Systems*, 42, 3-20.
- Lyons, J. F. (2004). Teaching U.S. history online: Problems and prospects. *The History Teacher*, 37, 447-456
- Muilenburg, L. Y., & Berge, Z. L. (2001). Barriers to distance education: A factor-analytic study. *American Journal of Distance Education*, 15(2), 7-24.

- Macharia, J. K., & Pelser, T. G. (2012). Key factors that influence the diffusion and infusion of information and communication technologies in Kenyan higher education. *Studies in Higher Education*, (ahead-of-print), 1-15
- MHRD (2020a), "Students to continue their learning by making full use of the available digital e-Learning platforms – Shri Ramesh Pokhriyal 'Nishank', pib.gov.in., available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1607521> (accessed 16 December 2020).
- Moustakas, C. (1994), *Phenomenological Research Methods*, Sage publications.
- Parker, Kim & Lenhart, Amanda & Moore, Kathleen. (2013). The Digital Revolution and Higher Education: College Presidents, Public Differ on Value of Online Learning. Pew Internet & American Life Project.
- RAO, K.; TANNERS, A. Curb cuts in cyberspace: universal Instructional Design for online courses. *Journal of Postsecondary Education and Disability*, v. 24 n. 3, p. 211-229, 2011
- Ryan et al., (2016). The effectiveness of blended online learning courses at the Community College level. *Community College Journal of Research and Practice*, 40(4), pp. 285–298
- Saini, D. and Chaudhary, N.S. (2019), "What drives research in higher education? An Indian context", *Journal of Applied Research in Higher Education*.
- Sharma, A.K. (2020), "COVID-19: creating a paradigm shift in India's education system", Economic Times Blog, available at: <https://economictimes.indiatimes.com/blogs/et-commentary/covid-19-creating-a-paradigm-shift-in-indias-education-system/> (accessed 24 November 2020).
- Shea, P. (2007), "Bridges and barriers to teaching online college courses: a study of experienced online faculty in thirtysix colleges", *Journal of Asynchronous Learning Networks*, Vol. 11 No. 2, pp. 73-128.
- Shenoy, V., Mahendra, S. and Vijay, N. (2020), "COVID 19 lockdown technology adaption, teaching, learning, students engagement and faculty experience", *Mukt Shabd Journal*, Vol. 9 No. 4, pp. 698-702.
- Smith, J. A., & Osborn, M. (2015). Interpretative phenomenological analysis as a useful methodology for research on the lived experience of pain. *British journal of pain*, 9(1), 41–42. <https://doi.org/10.1177/2049463714541642>
- Smith, P.K, Smith, C., Osborn, R. and Samara, M. (2008), "A content analysis of school anti-bullying policies: progress and limitations", *Educational Psychology in Practice*, Vol. 24 No. 1, pp. 1-12.
- UNESCO (2020), COVID-19 Educational Disruption and Response, UNESCO, available at: <https://en.unesco.org/covid19/educationresponse> (accessed 16 November 2020).

- Wang, C., & Reeves, T. C. (2007). Synchronous online learning experiences: The perspectives of international students from taiwan. *Educational Media International*, 44(4), 339-356.
- Wang, L. C., & Morgan, W. R. (2008). Student perceptions of using instant messaging software to facilitate synchronous online class interaction in a graduate teacher education course. *Journal of Computing in Teacher Education*, 25(1), 15-21.
- Wang, M. (2010). Online collaboration and offline interaction between students using asynchronous tools in blended learning. *Australasian Journal of Educational Technology*, 26(6), 830-846.
- Warden, C. A., Stanworth, J. O., Ren, J. B., & Warden, A. R. (2013). Synchronous learning best practices: An action research study. *Computers & Education*, 63, 197-207.
- Zen, D. (2008). How to be an effective online instructor. Retrieved from <http://search.proquest.com.ezproxy.gvsu.edu/docview/61952289?accountid=39473>
- Zhang, Z., & Kenny, R. F. (2010). Learning in an online distance education course: Experiences of three international students. *International Review of Research in Open and Distance Learning*, 11(1), 17-36.
- Zhu, C., Valcke, M., & Schellens, T. (2009). A cross-cultural study of online collaborative learning. *Multicultural Education & Technology Journal*, 3(1), 33-46.