

A CASE STUDY ON THE IMPACTS OF ONLINE MODE OF LEARNING ON EDUCATION

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ABSTRACT

The impact of the pandemic upon the human world has been multi-dimensional. In retrospect, the disruption of human life caused by the pandemic can be aptly described as unprecedented. Human organizations were forced to undergo changes of a phenomenal nature within a very short span of time in order to brave the reeling impacts of the covid spread. The article looks at one such core areas of human life namely education. The field of education has always been dynamic, known for its adaptability to changing circumstances and contexts. The progressive developments within the said field are a witness to human spirit of persistence and strive for excellence. However, it cannot be denied that the foundations of education systems all of the world have been rather severely undermined since the advent of the pandemic. Educational institutions were forced to shut down which caused unimaginable damage to the academic world of teachers and students alike. Globally, the educational systems were forced to introduce several changes, whenever they could, in order to maintain the fleeting appearance of the pre-covid times, with far limited success. The article delves into these very aspects of disruption and change within the educational system in India. Through primary research among the students of Mata Sundri College for Women, the article aims to unearth the impacts of the online mode of teaching-learning processes- a somewhat novel attempt within the field- upon the over-all quality of education.

Keywords : pandemic, education, human, online mode

INTRODUCTION

Equality of opportunity to all is one of the basic principles of our Constitution, and its significance to make education an achievable goal for all, cannot be emphasized enough. John Dewey, American philosopher, psychologist, and educational reformer, strongly argued that “[A]n environment in which some are limited will always in reaction create conditions that prevent the full development even of those who fancy they enjoy complete freedom for unhindered growth” (Dhankar, A.,2021). Another point he strongly supports is that for good education, one must lead the child’s current interests and abilities organically to logically organized human knowledge. This second point is a reference to the quality of education.

Education is empowering and redefining. For hundreds of millions of the young in India, education is also about discipline, development, curiosity, creativity and a path to breaking the cycle of ignorance and poverty leading to employment and prosperity. According to Vivekananda,

"What is education?

It is a book- learning? No

Is it diverse knowledge? Not even that.

The training by which the current and the expression of will are brought under control and become fruitful is called education” (Swami Vivekananda)

Ever since the widespread coronavirus knocked India in March 2020, the Prime Minister of India issued immediate orders to shut schools and colleges in order to protect the students from the deadly disease. Since education of students could not be kept shut for a very long duration, the only crisis-driven solution appeared to be the shift to online mode of teaching-learning. Classes and examination shifted to online mode. Since its very inception, there has emerged a raging debate concerning the merits and demerits of digitized education. While on one hand, there is an opinion which extends its gratitude to the fact that despite the global lockdown, the processes of education continue with the aid of technology, and even sees this opportunity- even though a forced one- for the much-needed upgradation of the quality of education through digitalization and e-learning, on the other, there is another dominant voice which cries foul over the severe condition of digital-divide that exists in many countries, especially the developing ones.

The latter fear that the model of e-learning may not be a realizable goal for poorer societies, making education even more a matter of privilege than before. The current research aims to probe further into the stated merits and demerits of online education.

The COVID crisis has shown that hoping for the best does not help. We must plan for the worst and hope for the best. Education is in crisis at the moment. Our answer to the crisis in education during the pandemic has been to offer online education or education through digital platforms. However, there are serious issues related to access, availability of devices, content curation, teachers training, testing, exams, grades, funding, facilities, salaries, parents and fees. The worst affected, as always, will be the marginalized, rural and poor populations.

Digital education is not about videos of lectures on blackboards by teachers on the internet. It is about appropriate platforms, technology, tools, interactivity, curation, content and a lot more. We are completely unprepared. Government schools and colleges do not have the resources to provide digital education. Private schools and colleges are no different. The financial model of education has fallen apart everywhere during this pandemic. In India, the situation is even more complex because of the lack of a proper policy on digital education, infrastructure and multiple languages.

The government began planning for the students of the country only by the end of August in the previous year. Many analysts viewed these plans as mere rhetoric that is always served to the poor. These plans were based on presumptions like semi-literate or illiterate parents teaching their wards, community involvement, mobile pools, and so on. Anyone with an understanding of the dynamics of the urban-rural divide in India will immediately note these presumptions to be fallacious. As a

result, what becomes apparent is that online or digital education is accessible to only students with the required resources that include the basic precondition of access to money, electronic gadgets and knowhow of technology. Thus, digital India may become even more unequal and divided than it already is.

Listening to lectures on the mobile phone, copying from the board where the teacher is writing, frequent disconnections and/or having blurred video/audio can hardly organically connect the student's present understanding with the logically organized bodies of human knowledge. Even the examination has shifted to online mode now which gives students a chance at malpractices while writing their answers, which in turn affects their future, as the students are just going to get the degrees but not build knowledge. Even if the format of the questions is changed and we call it Open Book Examination, still the problem remains the same and the students do not get the same competitive environment as before.

Information Technology has been presented as a harbinger of a revolution in education for more than three decades now. However, all reliable studies seem to indicate that Information and Communication Technology (ICT) in the classroom helps in already well-functioning systems, and either has no benefits or negatively impacts the structurally lacking systems. The importance of the institutional environment cannot be emphasized enough in the current times of online teaching. Even when the institutions function sub-optimally, students themselves create an environment that supports their growth morally, socially and intellectually, through conversations and interactions with each other. The online mode of teaching completely forecloses this opportunity.

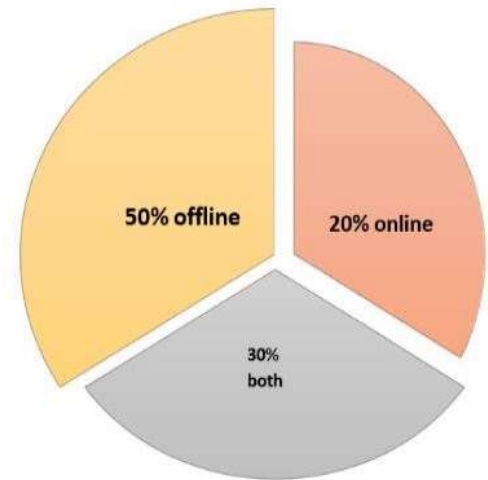
In the current research, the attempt is to delve into the experiences of the students of Mata Sundri College for Women with the digitized form of teaching- learning in the lockdown period; whether this rapid transition of old traditional classroom-based learning to digital e-classrooms has been done smoothly or students faced hardships from it. The research broadly aims to understand both the physical and mental impact of pandemic in their lives especially with reference to academics. Learning and studying can be immensely enjoyable and creatively engaging activities, if they are well arranged and supported. Is online mode really a beneficiary step towards quality education or another immense pressure upon an education system that is already structurally frail?

RESEARCH FINDINGS

COVID-19 has resulted in educational institutions being closed down for physical access, all across the world. A global estimate says that over 1.2 billion children are out of the classrooms owing to the pandemic situation. A resultant adaptation on the part of few educational institutions has been to shift to online modes of teaching and learning. It can only be concluded that such a shift must have

induced dramatic changes in education, with the distinctive emergence of e-learning, whereby teaching is undertaken remotely through digital platforms.

Many researches on the proliferation of e-learning have come up, and few suggest that online learning has been shown to increase retention of information by the students, and takes less time. With this sudden shift away from the classrooms in many parts of the globe, some wonder whether the adoption of online learning will continue to persist in the post-pandemic world as well, and how such a shift would impact the worldwide education sector.



With an intention to probe similar questions, the research conducted invoked varied responses. The respondents included 113 students, enrolled in various undergraduate courses at Mata Sundri College for women, aged 18 and older. Before the College was closed down in the month of March, year 2020 as a response to the contingent health crisis, these students were taking different college courses through physical or in-person class sessions. Thereafter, the students completed the rest of the sessions via the online mode.

The findings of the research are as follows. To the first question related to the preference of the students for online mode of teaching-learning, the research learnt that 50 percent of students gave preference to offline mode while 20 percent put stamp on the online mode.

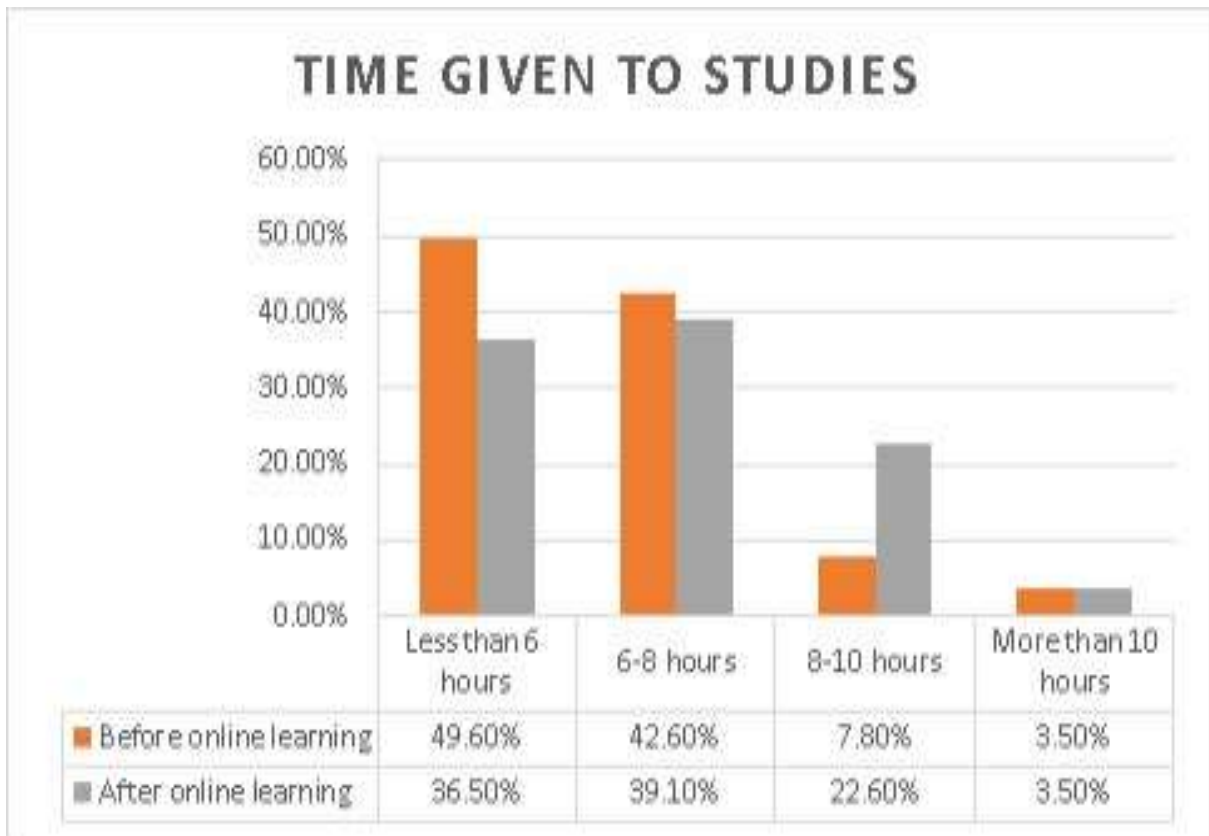
According to Encyclopedia.com, “online education is a flexible instructional delivery system that encompasses any kind of learning that takes place via the internet. Online learning gives educators an opportunity to reach students who may not be able to enroll in a traditional classroom course and supports students who need to work on their own schedule and at their own pace.”¹³ The new normal has led people, not just in India, but world over, to rely heavily on speedy internet connections, and electronic gadgets like computers and smartphones to go about their business. The crisis has nudged students to pick up e-learning opportunities as there is no end in sight. As the country takes to online education, the current pandemic is impacting rural students more than those who live in cities. Unfortunately, students in rural India are denied the newest devices and levels of accessibility to online content that urban Indians enjoy daily. Unlike their counterparts in cities, a lower percentage of students in villages possess desktop or laptop computers. They depend on their family members’ mobile phones for learning and attending classes, making it an arduous exercise. Watching small screens to consume as much information as possible for long hours could be

detrimental to students' health. For the students living in rural areas, purchasing data plans for learning could also incur a lot of expenses for families who face financial constraints. It could further affect the participation levels of both teachers and students in online classes. In all, lack of digital literacy as well as the digital divide have been serious concerns for our country for a long time. Many teachers and students in rural areas are not able to match up to the technical skills of educationalists and students in cities.

The research showed that out of the total strength of the respondents, 65 percent students were taking classes from metropolitan cities while 28 percent were located in towns and the remaining 12 percent in the villages, from where they pursued online education.

There is no denying that COVID-19 has turned the world upside down. As the world searches for new strategies to cope with this pandemic and its aftermath, higher educational institutions are now looking at online teaching-learning as a window of hope. Since a very long time, it has been claimed that as a considerable addition to classroom learning, engaging in different online learning modalities can introduce students have new opportunities to access knowledge, while at the same time, break the mold of traditional classroom setting. Several positive features of online mode of learning have been highlighted over the time. Online learning can be carried out in several ways like live online classes, recorded lectures, online educational resources, webinars, podcasts, etc. Students can learn at a time convenient for them, as they are not bound by strict timetables and schedules. Recorded lectures can be accessed at any time to read and revise. Online learning has the potential to make students independent and self-motivated.

To assess the above-mentioned claims, the respondents were asked to specify the changes they have noticed in their routine of study before and after the pandemic. The results were as followed:



The data indicates that there has been a downfall in the time given to studies (both the online classes as well as self-study) by the respondents. The attention span of students in the online mode, especially in the asynchronous mode, is unpredictable. Moreover, a majority of students attended their classes via their mobile phones, because of which, it was nearly impossible for them to stay attentive. The mental stress because of the fear of loss/inaccessibility or breakdown of the device was very clear. The tendency to drift off was high amongst the respondents and the lack of audio-visual feedback from the students proved to be problematic for the teacher. The psychological impact of staying locked inside the house for over a year is also an issue due to which students are struggling to focus on their studies. But a small section of

students believed that due to online education, they could study for longer periods of time (8-10 hours). Because classes could be taken from home or location of choice, there were fewer chances of students missing out on lessons, and, additionally it saved time as well as resources spent on traveling to college.

It can be said that each student has a different learning style. Some students are visual learners, while others prefer to learn through the audio medium. Similarly, some students thrive in the classroom, while others have a preference for self-study, as being part of large groups or classrooms distracts them. The findings suggest that while an online learning system, with its range of options and resources, can be personalized, and help to create a perfect learning environment suited to the needs of each student, the range of problems invoked in such a context that adversely impact the ability of the students to learn, cannot be ignored.

Related to above findings, the research sought to know whether the respondents had a conducive environment at home to pursue online learning. Based on the data received, it was evident that only 53.9% of the respondents viewed their home condition as being conducive to the pursuit of online learning whereas, a good 46.1% people did not have such privilege. The home environment is not always favorable for students to learn — either because it's very noisy or because it is sensitive: not all students can switch on their video, even if they have the bandwidth, as the domestic circumstances might not be something that they want to show and many more such reasons.

Educational institutions have been among the hardest hit by the COVID-19 lockdown. Overnight, they were forced to consider a new medium, which had been supposedly only an experimental endeavor till then. In the typical higher education model, classes are held in a physical environment, usually through lectures. However, in the days of lockdown, students take classes from the more familiar and supposedly comfortable home environment but perhaps come across challenges that anyone running a home office would face — balancing home responsibilities with the rigors of being in a classroom. These range of challenges, as the data puts across in the latter part, are unprecedented and a serious source of concern for the students.

The following part focused on assessing the home conditions from where the respondents pursued online classes. To the query whether the respondents were the single members within their families to be pursuing online classes, the data suggested that out of the 115 respondents, only 32 were the sole members taking online classes from home, while a whopping 83 respondents shared the provisions/resources for online pursuit of classes with at least one other

sibling or member of the family. On this basis, the research also came across several problems that the latter share of respondents must be facing as the resources at home get divided amongst more than one contender for online learning. These problems, as have been extrapolated by the findings further, can be many, ranging from disturbance faced due to less space at home or not having access to more than one device to take classes, resulting in the failure of one member attending his/her lectures.

To the question whether the respondents owned an electronic gadget like a personal computer, or laptop, or a mobile phone to take online classes, the data showed that a close to 14 students did not own any of these devices to be able to join classes. While this number might appear to be insignificant as compared to the majority 101 students who had access to the same, it must be asked if in a scenario, where no device to take online classes means zero access to education, in what manner do we assess the situation and the fate of the respondents who faced an abrupt halt in their education process because of the inaccessibility of a crucial resource? Where do they stand and can they be viewed as mere casualties of a new system, lest it continues in the post- pandemic world as well?

Personal Ownership of Electronic Device

Yes (101)

No (14)

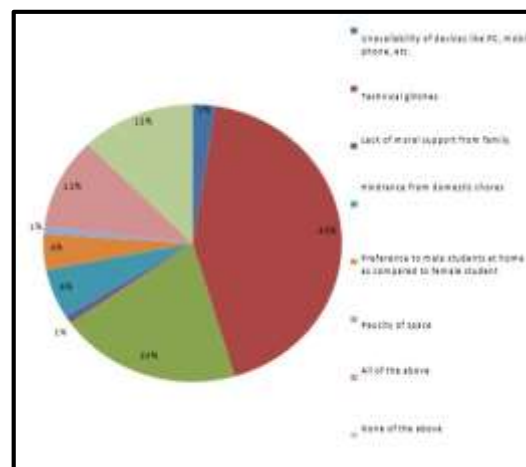
The next part dealt with a very crucial question of the different problems faced by the respondents while taking online classes. The findings were quite revealing as they open our eyes to a world of issues that the students tackle with, on a daily basis, while struggling to pursue education via the online mode.

Here are some of the most common challenges, as informed by the respondents while taking online classes:

- Technical issues.
- Distractions and time management.
- Staying motivated.
- Understanding course expectations.
- Lack of in-person interaction.
- Adapting to unfamiliar technology.
- Uncertainty about the future

The findings are as follows:

From the data, it was amply clear that the online mode of learning constituted a host of problems from the students. Merely owning an electronic device to access class was not enough in itself. The category of 'technical glitches', which posed a major hindrance in the process of smooth participation in class, was faced by a whopping 43 percent. It is very clear that in a system that is technology-dependent, technical glitches can go a long way to act as a significant disruption in the process of teaching-learning. Data also suggested



that there were various other issues faced by the students like lack of space to take classes, resulting in zero privacy, which in turn impacted the students' capacity to concentrate. There appeared to be students who had problems in attending the classes because the background environment was not education-friendly or conducive to pay the required attention to online lectures, which in the end, impacted their overall performance. In addition, the data also highlighted another major issue, especially mentionable in the context of female students, who had to struggle against patriarchal mindset at home, which did not give due importance to online mode of learning for females in comparison to male members of the family. Such a discriminatory attitude appeared to be faced by a certain percentage of the respondents, which controlled the latter's access to internet resources, gadgets and above all, free time devoid of pressures of domestic chores, to be able to take online classes.

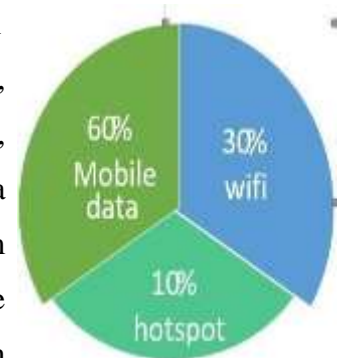
The research delved further into examining the background conditions in which the students pursued online classes. To the question if the respondents had access to a separate room/space to take online classes, it was found that nearly 40 percent reported a lack of access to quiet room/space to study.

Online classes seemed a perfect solution once the nation went into the initial phase of the 21-days lockdown to contain the COVID-19 spread, until issues like poor connectivity, shortage of smartphones surfaced. The pandemic was enough to derail the education system of India and now, poor internet connectivity and shortage of smartphones are creating hindrance for the students. Not only the students and teachers residing in the remotest parts of the country, face issues related to internet availability as well as connectivity, but also those who reside in megacities. The non-urban areas have also been hit massively by these issues. A query on the accessibility of internet facilities, revealed that as good as 65 percent of the respondents could

access glitch-free internet only at certain times, while 25 percent only replied in affirmative. Owing to this problem, the respondents reported recurring problems of wastage of time, and lack of motivation to join online classes.

The data showed that 60 percent of respondents connected through mobile data, which did not often last to cover nearly 3-4 hours of lecture. The classes were conducted mostly via Zoom or Google Meet platforms, and many respondents, owing to poor connectivity and server issues, faced the problem of paused or frozen video, by the time they resumed, they reported having missed out a part of the live sessions. The situation appeared to be worse for those from remote, non-urban areas.

This clearly highlighted India's digital divide, and that poor connectivity and lack of smart gadgets were indeed a hassle for many respondents. It was also a concern among the respondents that increased data consumption affected the family budget in adverse ways. From the data, it was found out that many of the respondents' families did not have a wi-fi connection prior to the lockdown period. As a result of classes getting shifted to the online mode, some of the families purchased either the broadband connection while some of them remained dependent on extra data booster packs, which constituted extra expenditure on mobile data. In many families, more than one internet connection was required, where, in addition to a school or college going sibling, at least one member had to work from home. Respondents reported that earlier the 1.5 GB data used to suffice but now, a huge elevation on data was seen. Some students even complain of increased expenses on purchasing books as earlier they got books from the library for free or nominal fee.



64.3% of the family members were found to be supportive towards this new mode of online teaching and learning process. Understanding the need of the hour due to widespread coronavirus pandemic when no one could step out of their houses, schools and colleges were running in online mode, where most of the parents were found cooperating with their children. At the same time, the data also suggested that 23.5% of the respondents' guardians found this new approach to learning a complete waste of time and resources. The remaining 18.3% respondents reported no particular response of their parents/guardians to this situation.

When asked about the changes witnessed, if any, on the quality of education, 73.8% of the respondents thought that the online mode of learning has impacted the quality of education. Though the teachers, syllabus and books/reading material remained the same as before, the

respondents observed a decline in their devotion towards studies because of the classes taking place on online platforms. The respondents were informed that it was difficult to concentrate on the mobile screens for hours. Also, most respondents complained of lack of proper environment for studying, especially those resources which were otherwise available at college like the library, practical rooms, laboratories etcetera. In addition, the online mode of learning was restricted to books only, while at the same time, being devoid of the significant aspect of face-to-face and regular interactions with classmates/ friends and teachers. The respondents felt that the competitive, academic environment of physical classes could never be substituted by the online mode of interaction.

So, how were the respondents impacted while attending online classes?

In the research, a combination of mixed reactions from the students of Mata sundri college were invoked. Some respondents described the online mode of learning as a boon, a silver lining in an unpredictable situation of a global pandemic. It not only helped in accessing education from home or remotely, but also saved time for co-activities as well, such as learning some soft skills through online courses. These in turn, as was reported, added to the respondents' academic credentials, and opened up scope for varied career opportunities. Online mode of learning also reduced transportation expenses for the respondents.

In contrast, another group of students experienced the completely opposite impact of e-learning in their lives. Online mode of learning impacted them very adversely as the respondents reported being prone to turn lethargic and reckless about their academic performance. At the same time, lack of discipline, time management and organization of study time contributed to their poor performance. Attending continuous classes for 4-5 hours without any break made them exhausted and annoyed sometimes. Many students felt bored due to online classes in which they saw nothing more than monologues from the teacher, lacking any face-to-face interaction, with either the teacher or fellow classmates. Lack of concentration and connection were experienced by many respondents. Technical glitches and poor internet connectivity at both ends- teachers as well as the students- further aggravated the above-mentioned problems. The respondents reported declining interaction between students and teachers, as well as, within the groups of students; the number of group discussions had also drastically reduced, which only contributed to lack of initiative, participation and performance among the respondents. Sitting in front of the laptop or mobile screen for long not only impacted human behavior but also caused back pain, strains in the eye and uneven posture. Impacts on respondents' mental health were also talked about, as they were completely confined to the

four walls of their houses with very minimal exposure to the outside world, contributing to nil social life and interaction.

The research intended to assess the changes in the participation of the students in online classrooms in terms of figures, the data disclosed that only 34 per cent of the respondents said that their performance had improved in online classes. On the other hand, 66 per cent believed that online education had led to a downfall in the active participation of the students as well as in their personal performances. 10 % of the respondents were of the view that online mode of learning has had negligible change in their class participation and academic performance. Respondents opined that switching to the new mode of learning via different e- learning methods such as Zoom app, Google classroom, Google meet, Youtube etcetera were new experiences for both teachers and students. But on the other hand, the respondents complained of facing challenges such as difficulty in understanding and using the apps for online education. The current modality proved to be of enormous difficulty for the respondents with disabilities as they found it more difficult to participate in online classrooms.

Education and academic performance of the students was affected the most with the sudden switch of learning mode from classroom to online mode. There has been a concept of distance learning and correspondence courses but neither of them involved online learning as a full-time mode of teaching for students. Only the add-on courses were adept with this technology. However, students and teachers both had to suddenly make a switch to online mode of learning as Covid- 19 did not give scope for classroom learning to continue. As this move was unprecedented, so were the impacts of it.

It took both students and teachers some time to adapt well with online mode of learning. However, a lot of students complained of worsening academic performance and their understanding of the subject in the online classes due to continuous interruptions, both physical and virtual, and the lack of humble classroom facilities like blackboard in the online classes made it difficult for them to understand certain things.

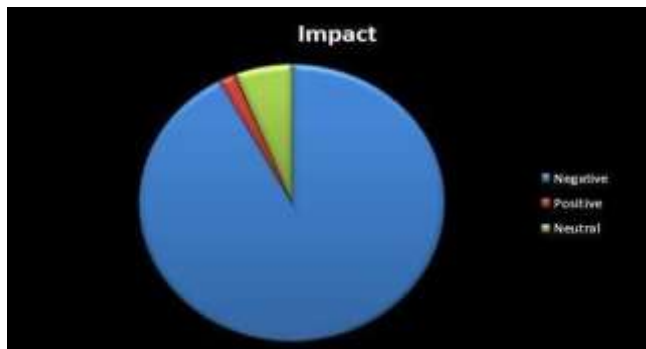
In our research we found that most of the students' claimed that their academic performance had worsened in the online mode of learning. There were a lot of students who believed that their academic performance in the online learning mode has remained the same as it was in the classroom mode. On the other hand, a handful of students stated that they had performed better in the online learning mode.

The data gathered through research, presented the following numbers:

Worsened: 51

Improved: 18

Same as earlier: 46



Neutral about the impacts: 7

negative impacts: 106

positive impacts: 2

Online mode of learning spared students from all the hustle of getting up early, catching metros and buses to reach the college on time. It gave students a lot of time to spend with themselves, which was usually spent travelling. In the beginning of the lockdown, a lot of people indulged in fitness and training as it became a raging trend on social media. People started taking care of their bodies in lockdown which they had stoically neglected for a long time.

However, with the starting of online classes, the duration given to self, started decreasing, and in fact, sitting continuously in the same position at the same place deteriorated the students' health and several of them started complaining about recurring backaches, headaches, negative impact on the eyes due to continuous exposure of blue rays, lethargy, obesity, tiredness and several other health issues.

In our research we found that though the students felt happy about saving their morning hours with the online mode of learning, they felt unhappy or rather dissatisfied with the hordes of physical health issues it tagged along with it. The respondents were given a choice between yes and no to answer the question if they had faced any physical health issues during this online mode of learning, and were asked to further explain what effects they could see. A lot of them answered in the negative and listed down the aforementioned health issues. One thing that a lot of them mentioned was that the breaks between two lectures and moving from one room to another within those breaks used to help them in straightening their bodies, as opposed to continuous sitting in front of mobile phones or computers.

However, there were two responses which mentioned that they could work constructively on their bodies in building their health in the duration that they usually spent traveling to the college.

The research aimed to unearth the prominent gains or losses, with respect to the respondents, in terms of change in education since the beginning of the online mode of learning. It was found

that most of the students remain dissatisfied in the present day due to the lack of overall classroom experience in the online learning apps. However, there were also a handful of people who believe that online classes have made them more comfortable and confident. Since the classroom learning came to a halt with no prior warning, online mode of learning emerged as an apt alternative to it. Though it took some time to make people comfortable with it and make them aware about its benefits, the transition period in between was a little painful for everyone, be it students or teachers. The transition period being the most difficult, maximum number of issues were observed in this period. Though the situation is not much better even now, it is moving gradually towards normalcy. Hopefully the online mode of learning would be embraced as much as the classroom learning in the near future. For now, there is still some dissatisfaction among students regarding online learning mode. Lot of them believe that it is not as effective as classroom learning as there is a lack of student-teacher interaction, student-student interaction and an overall lack of classroom atmosphere in online learning apps, which do not give students as much freedom as the classrooms to have discussions with each other and make interactions in other ways too.

The data gathered through research

Less interaction with teacher and students: 54

Loss the enjoyment of classroom studies: 53

Feel more confident: 8

On a concluding note, the research asked the respondents whether they would like to continue with online mode of learning in post-pandemic times as well, to which the reply was:

CONCLUSION

The research concludes that the students continued with their studies through the online mode voluntarily, but the process was not bereft of numerous pressures which impacted their lives in significant ways. Several factors influenced their experience, some of which students could control, while others, which were out of their hands. Students had to balance work and family,

manage time, and bring about massive changes in their personal time. The research concluded that in the absence of physical interaction, the respondents felt that the instructors/teachers should work to build a conducive classroom environment, and work to create a sense of community. The data suggested that it is the absence of physical correspondence between teachers and students that impacts the nature of interaction between them. The students often feel unconnected and develop indifference to what is being shared in the class. In some cases, students seemed to miss the physical markers and cues that made social connections easier to negotiate. Others seemed to thrive in the new environment. While some of the responsibility rests with the student, much rests with the instructor to create vibrant online experiences that allow for new intellectual skills to be developed and used. It is important to begin to uncover students' experiences with online learning because doing so can help to show effective online practices, student perceptions of online learning, and student satisfaction in the online environment. Our research depicted that most of the students preferred the traditional mode of education rather than the online mode. All of these can provide information about whether students will likely continue to accept online delivery of instruction and factors that will influence their persistence and retention in these courses. Throughout this research, the primary focus was to discuss how effective online mode of education is which served as the theoretical framework for this research. We examined various aspects of online education. We then examined which mode of education is most superior by students over time, and the impacts (psychological, physical) of online education. We can conclude our research on the basis that the most suitable mode of education for the respondents was traditional(offline) mode.

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