

PROSPECTS OF ONLINE MODE OF LEARNING IN POST PANDEMIC TIMES: A STUDY AMONGST THE STUDENTS OF SILCHAR CITY IN ASSAM

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Paper Received: 01.07.2021 / **Paper Accepted:** 08.08.2021 / **Paper Published:** 12.08.2021

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Abstract

The recent debacle that countries across the globe have witnessed during COVID 19 brought about devising of new strategies and mode of functioning for different professions. Amongst the new mode of functioning 'work from home' for IT professionals and 'imparting online classes' for the students have been the most common. But along with the compulsive acceptance, there have also been sporadic views of the stakeholders of these professions on the efficacy of the new norm of working. There cannot be a denial to the fact that the role of digital domain of performing the job has been accentuated during the period. In a response to the changing mindset of the people, the study was conducted to evaluate the views of the recipients of online education on the efficacy of the same. The responses for the study were collected from the students of three premier colleges in Silchar. The responses were collected from three groups of respondents who are currently pursuing the final year of their study in the colleges. The groups are identified based on three different streams: Arts, Commerce and Science. Therefore, in selecting the sample respondents, cluster random sampling was followed. The study attempted to achieve two-fold objectives: one was to determine the variation in the responses regarding the efficacy of online education across three different streams and the other was to determine the variation in the responses regarding the efficacy of online education across the three different colleges. In analyzing the responses, ANOVA was used as a statistical tool. The major finding of the study revealed that there exist significant variations amongst the responses of students for the three different streams and was discovered that there is a greater acceptance amongst the students of Science stream regarding online education as compared to the other two streams. It was also discovered that there exist significant variations amongst the responses of students across the three different colleges and among the three colleges considered, Gurucharan College tend to have a greater acceptance towards online education.

Keywords: COVID 19, Online Education, Premier Colleges, Learning and Work from Home.

Introduction

The rampaging effect of the recent COVID-19 pandemic has taken a toll on the economy of almost all the countries across the globe. There has been a deluge of lay-offs in many companies in response to not being able to meet the cost of the retaining employees. The plummeting fall in employment passed on panic amongst the people and number of people had to pick up a living which in most likelihood would otherwise be considered as menial. But the lesser sufferers are those sectors which had discovered newer norms of work. The coinage of new phrases and nomenclatures such as 'work from home', online education and webinars are the by-product of such discoveries. Along with the discovery, there has also not been a dearth of critical appraisal made by people regarding the new norms of functioning. But nevertheless the urgent discovery of new norms of functioning has generated new perspectives. The recognition and the acknowledgement of diverse ways of functioning has been a blessing in disguise for the whole episode. The study was undertaken to delve into

the efficacy of the online education imparted to the children during the period. The conceptualization of imparting education in online mode has surfaced long ago. It is just that the COVID-19 pandemic has accentuated the need of it. The study collected responses from the college-going students and corroborated them from the responses of their guardians to derive at a more comprehensive outcome. The study claims to be of high importance in determining the future of online platform for imparting education to the students. But it has to be borne in mind that the use of online mode of education was new for most of the teachers and students. Therefore, being naïve in the use of it was a constraint in using the platform in the most optimum manner. The expertise and the ease of implementing the new mode of imparting education to the students will improve with the passing of time. But the outcome of the research can be used as a reference for the initial acceptance of the online mode of learning. The responses were collected within a period of 1st November to 15th November, 2021. The period is considered to be ideal in

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eliciting appropriate responses as the students receiving education under the affiliation of Assam University had just completed the appearing in exams in online mode and there was a partial opening up of educational institutions as declared by the Assam Government.

Statement of the Problem

The study was conducted to unveil the attitude of the students and the guardians towards online education. The attitude of the students and the guardians can either be in the form of greater acceptance or greater resistance to the online mode of education. The study also shuns from evaluating the technical superiority of different platform of online education such as Zoom, Google Meet, and Google Classroom. Therefore, it is regardless of which specific platform was used for imparting the online education. Rather, every mode of imparting online education was included. The purpose was to collect the responses from the students and the guardians regarding the overall experience of receiving online mode of education. In the context, the study attempted to solve the following research problems:

- What is the perception of the students regarding the efficacy of online mode education across the three different streams?
- What is the perception of the students regarding the efficacy of online education across the three different colleges?

The solution to the above two queries would facilitate the policy-makers in incorporating online education as a supporting mode of education for the future generation. The rising use of Internet amongst the younger generation is inevitable. But the fact that needs to be delved at is whether it can be detrimental in substituting the physical form of education with the online mode of education. There can be stray and sporadic opinions from many people in the society. The research attempted to shape the responses from the respondents and put forth the outcome with a claim that it would facilitate policy-making with regard to online education. At the same time, it can recast the efficacy with which online form of education functioned during the pandemic. The recast can enable the determination of the loss in the field of education during the field. There cannot be a denial to the fact that pandemic period was catastrophic and had left a huge vacuum of loss in almost all the sectors of the economy. But the outcome of study will facilitate an assessment on the extent of loss in the educational sector which is considered to be the bedrock of any society.

Scope of the Study

The study had to contemplate the sampling frame as there was a limitation of time and budget. At the same time, the study needed to ensure that the responses were collected from the respondents

belonging from a particular segment. It would make the comparisons feasible. In the pursuit of ensuring that the study encompassed homogenous category of students and their guardians, the study included only the college-going students. There can be another reason attributed to the selection of only the college-going students in the sampling frame. The school-going students most often remain under the radar of their guardians. Apart from the education imparted from the classes in the school, the guardians generally are competent enough to provide guidance to the school-going students regarding their studies. The Post-graduate students are generally high-career centric students. The self-reliance of the post-graduate students is generally high and the students are most likely to prepare on their own relying lesser on the classes as compared to the college-going students. The college-going students are generally the most vulnerable. The different stream chosen by the students in the college make the students rely more on classes as they are novice to the new field of study. Apart from the fact, there is always a chance of the students straying in focus as they are compelled to be let a bit loose by their guardians who now may be less competent to guide their wards in studies as a student may select a stream beyond the repertoire of their guardians. The study hence excluded collecting responses from any group of students other than the college-going students. The study denied considering the technical superiority of any online platform for rendering education. Hence the responses were regarding the experience of the students about the availing of online classes irrespective of any particular online platform. The scope of the study also incorporated collecting the responses from the guardians of the students. The responses were collected from the students and the guardians of three premier colleges in Barak Valley under the affiliation of the Central University located in the region.

Limitations of Research

The research suffered from the limitation of time and space which renders the generalization of the results of the research to be time and space bound. The research was carried out in the select colleges of Silchar. The generalization of the results of the research beyond the region in which the research was carried out can be misleading and must be done with utter reservations. At the same time the time of research was conducive to elicit the appropriate responses from the respondents. The time chosen to conduct the research was Post-COVID-19 and the primary objective of the research was to assess the efficacy of the online education during the period of lockdown. With the graduation of time, there can be technological changes which can improve the efficacy of online education. The research might have displayed a different picture had it been conducted in a different time period. The research is

also jeopardized with the possibility of response bias. As the efficacy of online education also depends on how the teachers and the students are equipped in using the technology, therefore, the response might be unduly skewed depending upon the ease on using the technology by both the teachers and the students.

Literature Survey

The literature review has been conducted to enhance the specificity of the objectives of the research. Although the primary objectives of the research was to assess the efficacy of the online education during the period of lockdown and pass on a statistical judgment of the potential of online education for the future, the research envisaged the attainment of the broad objectives by segmenting the same into specific measurable objectives. The challenge in the section was to seek for past research that would facilitate and enhance the clarity of research. The reason attributed for the impediments faced in probing for past researches is the fact that the research is novel in its nature and the need for the research has emerged as a response for the recent pandemic situation. But even without the desperation in the situation which augmented the importance of research, the fact cannot be denied one of the most important mediums of learning across the world in the Internet. (Noor-UI-Amin; 2013). In reference to the same it is discovered that the principles of e-learning and artificial intelligence is being accepted throughout the world. (Misko et al; 2004, Soni; 2020). E-learning means a learning system that is conducted via online mode. The concept of e-learning and blended learning is not same. There have been other researchers who have attempted to define e-learning. Sangrà et al. identified that there are four categories of definition which may be used to define e-learning: (1) the technology driven category which emphasizes on the use of technology to deliver learning; (2) The delivery system oriented which emphasizes on the delivery of learning via electronic means (3) communication-oriented: The facilitation of learning through digital tools and content that involves some form of interactivity and (4) The orientation of educational paradigm: The use of information and communication technologies to support the students to improve their learning. Rodrigues et al views e-learning as an web based system based on digital technologies whose primary goal is to provide students with a personalized, learner-centered, open, enjoyable and a supporting environment. Dron and Anderson have also identified four generations of e-learning pedagogies: The behaviorist also called the cognitivist, the social constructivist, the connectivist and the holistic generation. The relevance of each of these depends on the capabilities of the technologies that it uses. The modern generation which is referred as holistic

mode of learning includes leaning analytics and collective technologies, approaches of artificial intelligence, disaggregated devices and services, mobility and device diversity, ubiquitous computing, virtual and augmented reality, and 3D printing. The features of the next generation pedagogy includes: (a) Student-focused; (b) distributed technically, socially and organizationally; (c) mass support; (d) integrated, just-in-time and authentic; (e) syllabus that will play less significant role; and (f) separation of learning and accreditation. The COVID 19 pandemic caused the closing of classrooms all over the world and forced the sudden modification of face-to-face academic practices. According to Bates the current pandemic has exposed the loophole in the current education system across the world and the need for universal and low-cost access to Internet for education The feature of e-learning must be built in principles with competence in the digital domain. (Vazquez-Cano et al; 2020). A key factor building a good nation is education. (Baiyere et al., 2016). There is a compulsive closing of educational institutions across the world. The teachers have been trying hard to make use of e-learning platform to impart education to the students. IT has become an important part of modern education and it reveals that there is a huge involvement of ICT in the present teaching-learning process. (Anderson, 2005). The providers of learning can share materials to the students and their lectures in the form of PDF, PPT, Word Document through emails, Whatsapp and other social connectivity platform. There are number of platforms such as Wechat, Zoom, Google Meet, G-suite where lectures can be conducted in audio-visual form (Felix, 2020). The development of technologies has offered a domain in the teaching-learning process. It offers teachers to change their pedagogical approaches. E-learning facilitates and expedited the teaching-learning procedures (Thamarana, 2016). The teachers can motivate students to enhance their learning skills through innovative ways. E-learning has brought a huge change in the traditional methods of teaching and learning. Due to ongoing of COVID-19 an increased number of students are found to use the learning platform and apps. Some of the platforms are already established like ED-TECH and cloud computing as they are available in reasonable prices and are easy to access (Naik, et al., 2017).

Research Methodology

The research was conducted to unveil the efficacy of e-learning adopted as a proxy solution for the suspension of the educational institutions during the lockdown period. The sampling technique adopted to collect the data was cluster sampling. The justification behind the cluster sampling is since the sampling frame includes the colleges under the affiliation of Assam University, the population is

clustered into different colleges. The primary units include selection of three colleges: Gurucharan College, Cachar College and Radhamadhav College. The first set of elementary units includes the selection of the stream of students from whom the responses are to be collected. The research selected three major streams in the colleges present which are science, commerce and arts. The second set of elementary units included the students to be selected for collecting the responses. For maintaining the uniformity in the quantum of responses, the research resorted to selecting 25 students from the final year or 5th Semester from each stream in each of the three colleges. This amounted to 75 students selected from each college. The limitation in collecting the responses was since there has been a staggered opening up of educational institutions as announced by the Government; therefore, the access of students is not hassle-free. There is an option available for the students to avail the online mode of teaching and physical attendance of the students in the college is not a mandate. Therefore, adopting a simple random sampling was not possible and the research had to resort to convenience sampling for selecting the students in the sample. The data collected were primary in nature as there was a structured interview which was conducted. For the sake of conducting the structured interview, the research formulated a

structured questionnaire in consonance to the objectives of the research. The attainment of the objectives of the research called for comparisons of responses across the different colleges and comparisons of responses across the different streams. This demanded adoption of ANOVA as a statistical tool. The research is descriptive in nature as it merely attempts to describe the perception of the recipients of online education regarding the efficacy of it.

Data Discussion

The data collected from the three different premier colleges are fit into ANOVA to compare the perceptions of the students across three different colleges. The null hypothesis which is tested for the purpose is as follows:

H₀: There exists no difference in the perception of the students regarding the efficacy of online learning across the select educational institutions.

The following table represents the responses which were collected from the students across different colleges and for different statements representing the efficacy of the online education during the lockdown period of COVID 19.

Table 1: Representing The Affirmative Responses of The Students on Statements for Three Different Colleges Regarding The Efficacy of Online Education

STATEMENTS	GURUCHARAN COLLEGE	RADHAMADHAV COLLEGE	CACHAR COLLEGE	TOTAL
Studying in an online mode is convenient for the learner in terms of time	64	40	46	150
E-learning can enable people to study, irrespective of where they are located in the world.	64	40	47	151
The electronic tools available are both convenient for the instructor and the students to use.	25	21	45	94
E-learning platforms are user-friendly	37	34	28	99
Using e-learning platforms enables me to learn at my own pace	56	45	28	129
It is easy for me to find information while using e-learning platform.	35	45	29	109
E-learning enhances the fun attached with learning.	44	28	27	99
E-learning needs encouragement as it is an innovative way of learning	45	28	20	93
E-learning is equally suitable for courses which have practical demonstrations.	13	29	17	89
The cost of e-learning is not an issue for the modern day as every students or their guardians possess Android phones or Laptops.	35	10	28	73
TOTAL	418	320	315	

The statements which were used to collect the responses pertain to an affirmative tone signifying that e-learning has been perceived to be effective by the recipients across the three different colleges. The number depicted in the table pertains to the number of respondents agreeing to the statements for the three different educational institutions. This implies that the number for each cell signifies that amongst the 75 students for each college from whom the responses were collected, the number of students who have agreed to the statements. The research introspects on the use of ANOVA to analyze the responses and test the null hypothesis that there has been no significant difference amongst the number of responses for each of the statements and the

number of responses for the three different colleges. The level of significance at which the null hypothesis is tested is 5%. The results of the ANOVA are highlighted in Table 2 where rows indicate the different statements and the columns indicate the three different colleges. The rejection of the null hypothesis for the rows will indicate that there exists significant variation in the number of responses related to the statements. This would indicate that some statements are agreed upon where others are not. The rejection of null hypothesis for the columns will indicate that there is a significant variation in the agreement of the statements for the three different colleges. The results of the two-way ANOVA are shown in the following table:

Table 2: Representing the ANOVA Table for The Variation in The Responses and The Variation in The Responses Across at Three Different Colleges

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	2761.367	9	306.8185	3.029918	0.021668	2.456281
Columns	674.6	2	337.3	3.330932	0.058779	3.554557
Error	1822.733	18	101.263			
Total	5258.7	29				

Since the calculated value of F at 5% level of significance is less than the tabulated value of F at 5% level of significance for both the rows and the columns, therefore, the null hypothesis is rejected for both the statements and the colleges.

This would indicate that the responses of the students are inclined towards a particular statement and at the same time responses of the students for a particular college outnumber the other colleges. To evaluate the dominance of a particular statement amongst the different statements and the responses of the colleges that varies significantly as compared to the other colleges, the total of the responses are being assessed. Amongst the statements it has been discovered that the space convenience of the students in using the online mode of learning has secured the highest score. This indicates that the students value the convenience that they derive in accessing the online mode of education at any place where they stay. This can centrally connect many students across different geographical regions without the need to assembling them at a common place. At the same time the flexibility associated with the time has also been valued by the learners greatly assigning the fact that lectures over the video can be recorded and availed at a time convenient for the learner. This eliminates the need of the learner to access the classes within a time frame only. While

assessing the total of the scores for the different colleges it has been observed that the Gurucharan college secures the highest score which indicates that there is a greater acceptability amongst the students of Gurucharn college regarding the online education as compared to the other colleges.

The research also envisaged the fact that there may be variation in the perception of the students across the streams regarding the efficacy of online education and therefore, the responses of the students across the three different streams for all the colleges have also been analyzed to discover whether there exists a significant variation in the responses of the students. The approach was to cumulate the responses of the students for all the three streams. If the responses of all the students from the different streams and from all the colleges are taken into consideration, then it is observed that the total number of students for each of the streams is found to be 75. The students are exposed to the same set of questions and the affirmative responses of the students are recoded. The following table shows the positive responses of the students regarding the same statements which were enquired for all the colleges.

Table 3: Representing The Affirmative Responses of The Students for All The Three Streams Regarding The Efficacy of Online Education

STATEMENTS	ARTS	SCIENCE	COMMERCE	TOTAL
Studying in an online mode is convenient for the learner in terms of time	56	68	60	184
E-learning can enable people to study, irrespective of where they are located in the world.	55	57	59	171
The electronic tools available are both convenient for the instructor and the students to use.	27	60	59	146
E-learning platforms are user-friendly	10	45	30	85
Using e-learning platforms enables me to learn at my own pace	34	45	58	137
It is easy for me to find information while using e-learning platform.	45	67	50	162
E-learning enhances the fun attached with learning.	40	45	55	140
E-learning needs encouragement as it is an innovative way of learning	45	57	39	141
E-learning is equally suitable for courses which have practical demonstrations.	10	35	34	79
The cost of e-learning is not an issue for the modern day as every students or their guardians possess Android phones or Laptops.	10	30	35	75
TOTAL	332	509	479	

The statements which were used to collect the responses pertain to an affirmative tone signifying that e-learning has been perceived to be effective by the recipients across the three different streams for all the select colleges. The number depicted in the table pertains to the number of respondents agreeing to the statements for the three different streams. This implies that the number for each cell signifies that amongst the 75 students for each stream from whom the responses were collected, the number of students who have agreed to the statements. The research introspects on the use of ANOVA to analyze the responses and test the null hypothesis that there has been no significant difference amongst the number of responses for each of the statements

and the number of responses for the three different streams. The level of significance at which the null hypothesis is tested is 5%. The results of the ANOVA are highlighted in Table 4 where rows indicate the different statements and the columns indicate the three different streams. The rejection of the null hypothesis for the rows will indicate that there exists significant variation in the number of responses related to the statements. This would indicate that some statements are agreed upon where others are not. The rejection of null hypothesis for the columns will indicate that there is a significant variation in the agreement of the statements for the three different streams. The results of the two-way ANOVA are shown in the following table:

Table 4: Representing the ANOVA for The Variation in The Responses and The Variation in The Responses Across at Three Different Colleges

Source of Variation	SS	Df	MS	F	P-value	F crit
Rows	4586	9	509.5556	7.647157	0.000139	2.456281
Columns	1794.6	2	897.3	13.46623	0.000266	3.554557
Error	1199.4	18	66.63333			
Total	7580	29				

Since the calculated value of F at 5% level of significance is less than the tabulated value of F at 5% level of significance for both the rows and the columns, therefore, the null hypothesis is rejected for both the statements and the colleges.

This would indicate that the null hypothesis that there is a significant variation in the responses of the students across different streams and across the different statements. Therefore, the research assesses the total of the responses of the students to discover which stream of students has a positive

perception regarding the efficacy of online education. It has been observed that the greatest score is secured by students belonging from the science stream. At the same time the lowest score is secured by the students belonging from the Arts stream. The observation regarding the scores secured for the statements also highlights the fact that the value associated by the students for the flexibility provided regarding the time and space in using the online education is valued much by the students.

Conclusion

The study has laid down a clearer picture regarding the efficacy of online education as perceived by the students for the different streams and for the different colleges. It has been discovered that there is a greater acceptance amongst the students of Gurucharan College towards online education. In probing into the different streams it has been discovered the students from the science stream have a greater acceptance regarding the online mode on education. It is also discovered that the convenience related to time and space is assigned greater importance in availing the online education by the students across the different streams and colleges.

Conflict of Interest

There is no conflict of interest between the authors in this manuscript.

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