# Effectiveness of Online Education during COVID 19 Pandemic Condition: an empirical case study on first year MBA students of JSPM's JIMS Tathawade Campus, Pune, Maharashtra

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### Abstract

It is imperative that this Covid 19 pandemic has utterly disrupted an education system. With this sudden shift away from the classroom in various parts of India to online mode, some are wondering whether the adoption of online learning should continue to persist post-pandemic, and how such a shift would impact our education market. If online learning technology could play a role here, it was incumbent upon all of us to explore its full potential. There are, however, challenges to overcome. Without reliable internet access to participate in digital learning some students struggle in India, is one of the barriers for such endeavour, which draws our attention immediately. Hence it needs to have a concerted effort to provide supporting structure and go beyond replicating a physical class/lecture through video capabilities, trying using a range of collaboration tools and engagement methods that promote personal attention.

[Key Words: Education system, Internet, Personal Attention, Pandemic]

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## I. Introduction

With the emergence and spread of COVID-19 in India, online education has trickled down to the college level. Although, students are finding it a welcome change from strict schedules and long-distance commutes to attend classes, many who find learning in large classes intimidating, this may be a less stressful option. Using the internet for entertainment is common, but use for online lessons is a big challenge. Body language and eye contact, which are important cues for the instructor, are difficult to replicate in an online class. These questions arise even in traditional classrooms, but they are still harder to address in online classes. Many college students seem to value the in-class physical learning experience much more than a virtual one. In addition, science and technology programs often include hands-on laboratory sessions, dissertation projects and field trips to complement theoretical studies. This aspect of learning is severely limited in online education.

Use of Quality video for online classes: To make online classes more lively the following video modes are used for online classes.

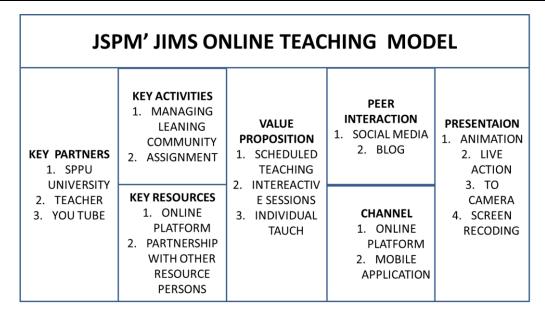
Animation: It is a great way of explaining complex topics. 'Understanding videos' are an impactful way of visualising a concept and helping to understand it, rather than simply reading about it.

**Live action:** This style of video is best for showing role-play scenarios such as how to deal with an angry customer. Students learn best through experience and watching another person's interaction with a customer can help employees retain information on how they should handle the situation too.

**To-camera:** This is when an instructor explains the information being covered in an interview-style format, speaking directly to the viewer. This gives the learner the feeling of being directly spoken to, and they are more likely to be engaged because of this.

Screen recorded: In these method records actions as they are being taken on a computer, making it the most effective way of walking employees through how to use computer systems or processes.

One of the benefits of video teaching is it can be used remotely, it's easier to digest than blocks of written text, and it's easy for instructors to change the content if required, much to the best use for teaching to college students. The online teaching model used by JSPM's JIMS is shown below.



## II. Literature Review

Due to no availability of proper internet connections especially in rural areas some students also have affected on their dream learning and this would also affect their grade point averages (GPAs). Covid19 also has affected the worldwide transportation and direct communication. This also affects the international admissions in higher educations. The educational delivery system is changing because of technological advances. Students now have greater autonomy at directing their learning toward their specific needs rather than approaching it circuitously writes Cooley & Johnston, 2001. The increased presence of non-traditional, household, lifelong learners further limits the need for distance and online education. Lifelong learners, along with generations of young students, will be equipped with technology exposure and Internet access to saturate the field of online learners, thus rising above their teachers in knowledge and application mentions Junco & Timm, 2008. Education is just one area that has highlighted the digital divide between India's rural and urban areas during the lockdown. The trend is evident everywhere be it in telemedicine, banking, e-commerce, e-governance, all of which became accessible only via internet during the lockdown.

The divide exists in spite of the rise in the number of wireless subscribers in India over the past few years. According to the monthly report released by the Telecom Regulatory Authority of India (TRAI) on June 29, the India had over 1,160 million wireless subscribers between February 2020, up from 1,010 million in February 2016.

Access to the right device and cost of data for enhanced usage of Content Consumption: While we see at the domain of digital learning, it is imperative to consider the availability of the right devices to every student for accessing digital content. Not a lot of people in rural India have access to laptops or computers and phone screens are favourable to long learning hours. Even if there is access to desktops or laptops, there arises another issue of internet access and the costs that are incurred in the process. Data packs and their costs can be a big deterrent both for teachers as well as learners, especially for live classes. As an attempt to bridge this gap, subsidized learning data plans can be made available by telecom companies, says Siddhartha Chaturvedi, in his article Digital Education Barriers In Rural India

## III. Research Questions

Students' perspectives provide invaluable, first-hand insights into their experiences and expectations in online learning. What shapes students' perceptions of quality integrate are their own sense of learning achievement, satisfaction with the basic support they get from the charges for the online services, non-interruptions in transmission of the lecture through various devices. So our study revolves around the two basis questions:

- 1. Whether there exist digital divide between rural and urban facility
- 2. Whether the online teaching is having equivalent effectiveness compared to offline teaching.

## IV. Research Methodology:

This empirical study was conducted on 80 students of MBA pursuing their first semester since first of February 2021. They source from both rural and urban areas of around Pune, Maharashtra. Initial study about the types of devices used for study was conducted to check whether there exist any anomalies for learning

quality. Since satisfaction with online classes is frequently assumed to be lower than face-to-face classes, one to one discussion with the students were conducted on individual attention, informal discussions during sessions. Results showed no such difference between offline and online mode was found. The detailed summary is depicted in the table 1.

		Table 1	
Type of Variable	Response Type 1	Response Types 2	Response Type 3
	Type [No of Res= % of Res]	Type [No of Res= % of Res]	Type [No of Res= % of Res]
Quality of Bandwidth	Good [ 72= 90%]	Average [ 5= 6%]	Bad [ 3 = 4%]
Individual Attention	High [ 67= 84%]	Average [ 12=15%]	Low [ 1 = 1%]
Informal Discussion	High [ 58 = 72%]	Average [ 18 = 23%]	Low [ 4 = 5%
Type of Device	Laptop [ 26 = 33%]	Smart Phone [ 41 = 51%]	Both Laptop & Smart Phone [ 13 =
			16%]
Use of Chat Box during	High [ 36 = 45%]	Average [ 21 = 26%]	Low [ 23 = 29% ]
session			

Getting feedback that the quality of bandwidth are reasonable in both the urban and rural positions are almost same, students were asked whether they found any difference in the perception between offline and online mode of lecture. The chi square test for independence was conducted for all parameters, where no significant differences were found on the rural & divide except for two basic points 1. The internet services charges. 2. The interruptions during the sessions. So chi square test was conducted to see whether there exist any significance difference in internet charges and quality of interruption during the lecture time on the basis of rural & urban divide.

### **Hypotheses Testing:**

### Hypothesis 1

H0: There is no rural & urban digital divide on the charges for Internet uses

H1: There exist rural & urban digital divide on the charges for Internet uses.

### Hypotheses 2

H0: There is no rural & urban digital divide on the transmission interruptions for Internet users

H1: There is rural & urban digital divide on the transmission interruption for Internet users

#### Statistics

Rural/U	Jrban			
	Ν	Valid	80	
		Missing	0	
]				

#### Rural/Urban

Gender			Frequency	Percent	Valid Percent	Cumulative Percent
	Valid	R	39	48.8	48.8	48.8
		U	41	51.2	51.2	100.0
		Total	80	100.0	100.0	

#### 1. Rural/Urban \* Charges Cross tabulation

			Charges			
			Between Rs 300		More Than	
			to Rs 600	less than Rs 300	Rs.600 per month	Total
Rural/Urban	Population greater than	Count	32	6	9	47
50000= Urban	50000= Urban	Expected Count	28.2	12.3	6.5	47.0
	Population less than 50000 =	Count	16	15	2	33
	Rural	Expected Count	19.8	8.7	4.5	33.0
Fotal		Count	48	21	11	80
		Expected Count	48.0	21.0	11.0	80.0

#### **Chi-Square Tests**

	Value	df	Asymptotic Significance sided)	(2-
Pearson Chi-Square	11.549 <sup>a</sup>	2	.003	
Likelihood Ratio	11.777	2	.003	
N of Valid Cases	80			

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 4.54.

#### Symmetric Measures

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_		Value	Approximate Significance
Nominal by Nominal	Phi	.380	.003
	Cramer's V	.380	.003
N of Valid Cases		80	

Inference 1: A chi-square test of Independence was performed to examine the relationship between Urban and Rural Students Charges for online classes. The Relation between these variable was found to be significant,  $X^2$ (2,N=80) = 11.55, p = .003. Hence the charges for using online classes are significantly difference between two locations. Hence our H0 is rejected. The level of difference found to be moderate.

#### 2. **Rural/Urban \* Interruption** Cross tabulation

		Interrupti	Interruption	
		No	Yes	Total
Rural/Urban	Population greater than 50000= Count	14	33	47
	Urban Expected Co	unt 14.1	32.9	47.0
	Population less than 50000 = Rural Count	10	23	33
	Expected Co	unt 9.9	23.1	33.0
Total	Count	24	56	80
	Expected Co	ount 24.0	56.0	80.0

#### **Chi-Square Tests**

			Asymptotic Significance (2-		
	Value	df	sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.002 <sup>a</sup>	1	.960		
Continuity Correction <sup>b</sup>	.000	1	1.000		
Likelihood Ratio	.002	1	.960		
Fisher's Exact Test				1.000	.576
N of Valid Cases	80				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 9.90.

b. Computed only for a  $2x^2$  table

Inference 2: A chi-square test of independence was performed to examine the rural, urban significance difference in online transmission interruptions. It was found that these variables were not significant.  $X^2$  (1, N= 80 = 002, p = .96 These exist no significant difference in the interruptions while using internet in rural and urban location. Hence our H0 is not rejected.

#### Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	006	.960
	Cramer's V	.006	.960
N of Valid Cases		80	

#### V. **Conclusions:**

Online mode of learning can be the best mode of teaching if it can be accessed by all the sections of the society however it can pose threat if certain section of society cannot avail this facility and thus exclusion. It is therefore important to take cognizance of online education and plan for interventions that will prioritize education with greater inclusivity, connectivity and equitability. It is important that colleges and University understands the experience and issues of the students and prepare according the further and design the study pattern in such a way that all students are benefited. Without the internet, people of an affected area are left in an information vacuum, in which the academics cannot function as usual and the public cannot confirm or deny claims made by the government. Moreover, interruption paralyzes daily life: People cannot access many necessities such as medical, educational and financial services.

#### Suggestions: VI.

Many studies reveal that even electricity facility is not completely available in many villages of India for all household applications. So, this article recommends providing proper electricity facility to every village so that internet access to all citizens of India to carry out the higher education successfully. Further, it suggests that to implement successful learning, teaching and evaluation, the universities must provide sufficient training to all the stakeholders. It will be very much useful for the young graduates to avoid their fear about the future career if they take their classes online. With the proper decision, training, and motivation on conducting

courses online the higher education institutions can make the graduates globally competitive during the Covid-19 pandemic and even post-Covid-19 era. Furthermore, many statistics show the spreading of corona virus is not completely under the control, so it is advised that with the proper precautions the universities may continue their journey on the new revolution of education which is triggered by Covid -19 with the help of human and machine.

There is an urgent need to work on creating social presence during the online course. Some tools can be used to make the presence felt by the participants of the online course such as asking student's personal information, encouraging interaction exchange between students, supporting video communications so that the facial expressions of the students and their voices are also clearly heard and seen. Moreover many great people argue that there is a need to exchange social cues and generate the feeling that there is optimum interaction between the members in the virtual platform. The success of the online course is definitely dependent on this other than making the online class pleasant. In order to strengthen the backbone of e-learning the government should deploy the necessary infrastructure at remote places where people don't have access to internet; thereby fixing the internet gap which would facilitate students to learn digitally. Every state government in India should come up with creative strategies to make the education accessible to each and every student especially for those who come from marginalised, underprivileged and remote sections of the society.

Strengthening Corporate Accountability, although the government may have limitations in collecting and sharing data, it is important to note that there is currently no mechanism that holds service providers accountable for the any transmission interruptions. Under licensing conditions, service providers are required to comply with government requests for shutdowns. However it is found the predominance of informal channels over authorized official orders. Given the sensitive nature of the subject, service providers have hardly raised this issue in public. One approach should be for telecommunications companies and Internet service providers to develop disclosure policies on the number of orders received, orders complied with, procedures, etc. This would work positively for both companies and their customers while improving all stakeholders' confidence. A suitable example is the Ranking Digital Rights (RDR) Corporate Accountability Index. The non-profit research initiative developed within the Open Technology Institute of New America Foundation evaluates the commitment of ICT companies to freedom of expression and privacy. However, they have reported little success from operators in India

In India the price war has cut industry wide revenue per user—now averaging \$1.53 a month, compared with about \$2.50 in 2016. Jio beats the average, at \$1.89 a month, but the number has been discouraging since its launch. There is tremendous potential for improvements in service efficiency if Internet connectivity is more reliable. The procurement process could be made smoother, software trouble shooting and maintenance can hence be executed remotely instead of theirs currently waiting for a reliable connection to seek help from software companies.

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