



STUDY OF IMPACT OF ONLINE TEACHING & LEARNING ON THE STUDENTS OF MIDDLE, SECONDARY AND SENIOR SECONDARY STAGE

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Abstract : Before Covid-19 situation only physical classroom teaching, learning was there. A sudden outbreak of Covid-19 called corona virus changed the way of teaching and learning. Before Covid-19 the traditional way for teaching and learning i.e. by face-to-face lectures. But by the passage of time mix teaching methods also gets started. Because of situation raised during Covid-19 educational institutes adopted the blended mode of teaching i.e. online as well as offline. The impact of blended mode of teaching is a necessary matter to be analyze. Since it directly related with the knowledge of the students. The students from elementary education to higher education all were gone through the same circumstances. Since the basic infrastructure i.e. electricity supply, internet connection, desktops/laptop and mobile phone etc. are not in reach of every students in India, hence the study of impact of online teaching, learning method needs to be focused and analyze.

According to the response of 500 hundred students the paper concluded that who have more impact of Covid-19 in education sector between urban and rural area students.

This paper aims to analyze the impact of Covid-19 focusing on the difference between the rural and urban education system in India.

Keywords- Pandemic, online education, Covid-19, Blended mode..

INTRODUCTION

Due to the outbreak of Covid-19 Indian government has announced the lockdown. The enforcement of social distancing and closure of educational institutions put a massive pressure on the education system. Students faced a lot of problems over the time due to sudden changes in teaching, learning methods. During the Covid-19 pandemic, universities across the world have transitioned to distance education, most of which, is planned for online delivery [6,7,8]. In India, the development with respect to the reference to supply of electricity and network connection is not same in urban and rural areas. The rural areas have less facilities than urban areas. So, there is major difference between the availability of resources in rural and urban areas. Online classes since new and hence confusing and hard to accept by the students.

Availability of electricity in rural area and urban areas is not same. In rural areas people have to face electricity problem. In the recent 2017-18 survey, the ministry of rural development found that only 47% of Indian households receive more than 12 hours of electricity and more than 36% of school in India operate without electricity [1]. Due to Covid-19 lockdown, most educators had to change their approaches to most aspects of their work overnight: teaching assessment, supervision, research, service and engagement [4,5].

Internet bandwidth is relatively low with lesser access points, and data packages are costly in comparison to the income of the people in many developing countries, thus making accessibility and affordability inadequate. Policy-level intervention is required to improve this situation [2].

Distance learning is challenging in developing countries because many parents have not themselves been to school, lack of ICT infrastructures, computers, radio, and television [3].

Today, digital learning has become an integral part of every student and educational institutions around the world. Many educational institutions are now adopting digital methods of delivering education as a completely new form of education.

In this paper, there are 278+ students responded from rural area and 250+ students responded from the urban area. All the students belong to different schools viz. private, public. Out of total participants 80.4% students responded from private schools and 18.6% from public schools.

The current survey was conducted to analyze the impact of Covid-19 on the education of students of rural and urban areas during lockdown.

Methodology.

Data and information presented in current study were gathered through the survey and from other literature reports. Data was collected from field survey and presented in current report.

1. Sample

In the paper the data was collected through the questionnaire form students of rural as well as urban areas of Distt Jind (HR). In this survey 500+ participated students give their views. The students were divided into three age groups 5-10 years, 11-15 years and 16-20 years. The response rate of students was higher of age group between 11-15 years nearly 52.6%. The response rate of age group 16-20 years was nearly 10% lower than the 11-15 years age group. 6.2% response was gathered from the age group of 5-10 years students which was minimum in all 3 groups.

The students from 5th to 12th were engaged to fill up the questionnaire other than 500 students participated in the data collection process and filled up the questionnaire in totality out of 500 approximate 280+ students.

2. Domain of the study

At first the key information was identified. Then, the data was collected individually from students through Google form. The Google form link was shared through many social media platforms like: WhatsApp, Instagram etc. Link was shared to some school principals too. Google form link was get disabled after 20 days and thus, 500 student response was collected.

3. Questionnaire

There were 26 questions on the questionnaire. 25 questions were closed questions and 1 question was open ended. Closed questions were used to get the feedback of online classes. One open question was there to add some extra self- thinking towards online system. All the questions were divided into 4 categories:

I. Demographic information

There were 5 questions in this category in which student class, age, school and leaving area was gathered.

II. Class related information

In this category student's class related information was fetched. In this field there were 11 questions related to classes format, class duration, study material, doubt clear, class test etc points took under consideration.

III. Technical problems

There were 4 questions in this category which points towards technical problems in their area during pandemic time.

IV. Student belief and attitude towards online learning.

In this category there were 6 questions related to student personal belief and attitude towards online classes during pandemic.

To analyse all these data MS-Excel (2018) software was used. Likert scale with the scale of 2 to 5 points was used to analyse the data. These questions give the answer to the impact of online classes during pandemic between rural and urban students.

Data analysis:

Data was collected on demographic features followed by learner preferences, perceptions, advantages, constraints and suggestions. Likert scale was used to analyse data. By simple average formula, average was calculated of most of the related questions.

%(percentage)= $x/N * 100$,

Where x = data set value, N = total no of values.

Or

$$A = \frac{1}{n} \sum_{i=1}^n a_i$$

A = arithmetic mean, a_i = data set values,
 n = Number of values

Purpose of study:

The main purpose of this study is to analyse the acceptability of online education system in rural and urban areas.

Observation:

The analysis of quantitative and qualitative data collected from the study is given below:

A. *Demographic information*

The variable included class, age, school and leaving area. The higher response got from respondents of 12th class (26%). The respondents of rural area were in majority to respond (55.6%). The major respondents were from age group of 11- 15 years (52.6%). Private school students gave more response than other schools (80.4%). See table 1.



Table 1: Demographic information

Variables		N = 500 Percentage (%)
Class	5 th	7.2
	6 th	7.8
	7 th	12.6
	8 th	13.2
	9 th	9.6
	10 th	20
	11 th	3.6
Age	12 th	26
	5-10 years	6.2
	11-15 years	52.6
School	16-20 years	41.2
	Government	18.6
	Private	80.4
Leaving area	Others	1
	Rural	55.6
	Urban	44.4

B. Class related information

According to below table, Mostly format of online classes was through live classes (70.4%) and study material format was through pdf probably (73.4%). The online classes duration was mostly 2-4 hours (61.2%).

Table 2: Class related information

Questions		N = 500 Percentage (%)
Duration of the classes?	30 min.	38.6
	45 min.	39.6
	1 Hr.	15.2
	More than 1 Hr.	3.8
	No any classes	2.8
Format of online classes	Live	70.4
	Recorded videos	8.8
	YouTube links	12.4
	Others	8.4
Format of study material	In PDF	73.4
	In document form	3.8
	In ppt form	2
	Website links	12.6
	Others	8.2
Duration of break in online class	5-10 Min	46.8
	10-15 min	31.8
	More than 15 Min	6.8
	No Break	10.6
	All day free	4
Total duration of online classes everyday	2-4 hours	61.2
	4-6 hours	20.4
	6-8 hours	3.6
	Below 1 hour	10.2
	No any classes	4.6
Getting answers in online	During the class	67.8

classes	After the class	15.8
	Next day	10.2
	Never	6.2
Disturbance during the online classes	Much	32.8
	Low	41.8
	No disturbance	25.4
Method used to take tests during online classes	During class	32.2
	After class	47.8
	Through google form	9.8
	Other	10.2
Keeping tuition during online classes	Yes	39.2
	No	60.8
Assignment and practical submission method	Online	55
	Offline	45
Focus on study during online classes	High	24.2
	Good	60.6
	Low	15.2

C. Technical problems

During online classes, students faced lot of problems like network connectivity, data pack etc. Through this survey there were no of data collected which pointed towards technical problems by students in online classes. Mostly students adopted the mobile phone as there online class media (88.6%). Source of internet was mostly adopted was mobile data pack (76.4%). During the pandemic not only student other people also face the internet problems. Telecomm company were increase their internet data pack rate instantly.

Table 3: Technical problems

Question		N = 500 Percentage (%)
Equipment used during online classes	Mobile / iPhone	88.6
	Tablet	3
	Laptop	5.4
	Computer	3
Source of internet	LAN	3.6
	WIFI	18
	Mobile data pack	76.4
	Others	0.2
Speed of network	Fast	22.4
	Medium Slow	68.6 9
Audio / Video quality	Very good	23.6
	Good	58
	Poor	18.4

D. Students' belief and attitude towards online learning.

By these questions responses, comparatively more students like offline classes. There were online classes but most of students were in the side of offline exams mode (62%).

Table 4: Students' belief and attitude towards online learning.

Questions		N = 500 Percentage (%)
Feel towards onlineclasses	Very good	31.6
	Normal	54.6
	Bad	13.8
knowledge increased?	Increase	35
	Same	52.8
	Decrease	11.4
Like online classes	Yes	49.8
	No	50.2
Exam mode should be...	Online	38
	Offline	62
Were Online classes good for students	Yes	50
	No	50

Compare the effect of pandemic between rural and urban students by graphical notation:

Although the pandemic has gave a negative impact on all student's life, but during the survey when data was collected and analysed there are some factors which are indicate that whose students are more effected in study during Covid-19 pandemic. These are related to technical, demographic, study etc. All the collected data are showing the result which define the comparison like structure in graphic form, like

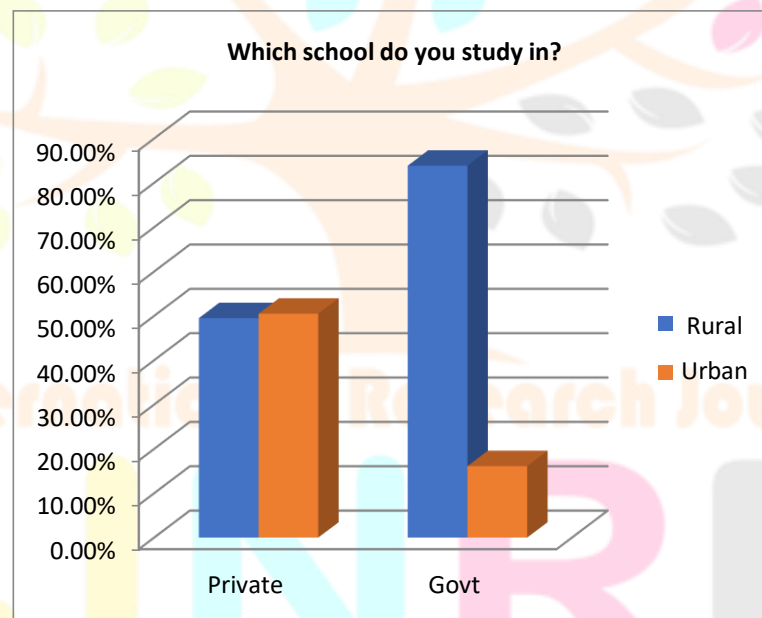


Fig. 1. School type

In the Fig.1 the column chart shown the result between Rural and Urban students whowere studied in private and government school. Urban students may have more facilities than Rural students, these are maybe like transport, school fees, school timing, teaching methods etc.

During the Covid-19 pandemic, both areas students were affected. Now there are some more column chart which are shown the difference result in different-2 criteria accordingto their feedback.

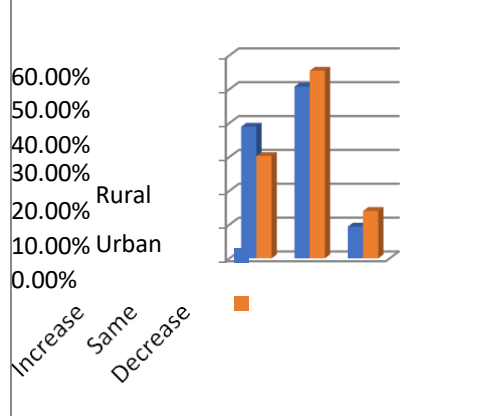


Fig.2 Impact on knowledge

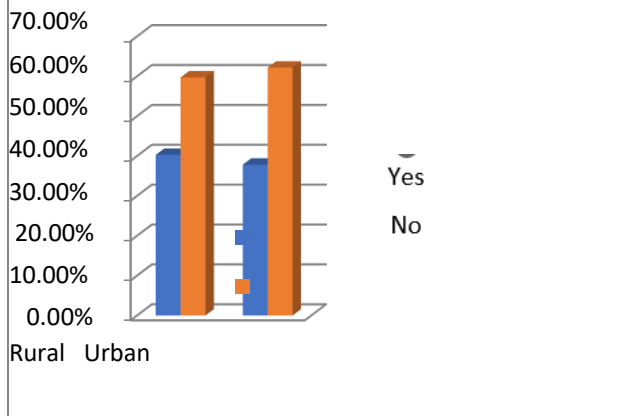


Fig.3 About tuitions

In the Fig.2, there are 50% rural students who opt the 'Same' option but more than 50% urban students choose the 'Same' option. Only less than 40% students opt 'Increase' option. It means there are less students who knowledge is increase. Although they also have been taken tuition (Fig.3), but mostly student's knowledge remains same during the pandemic.

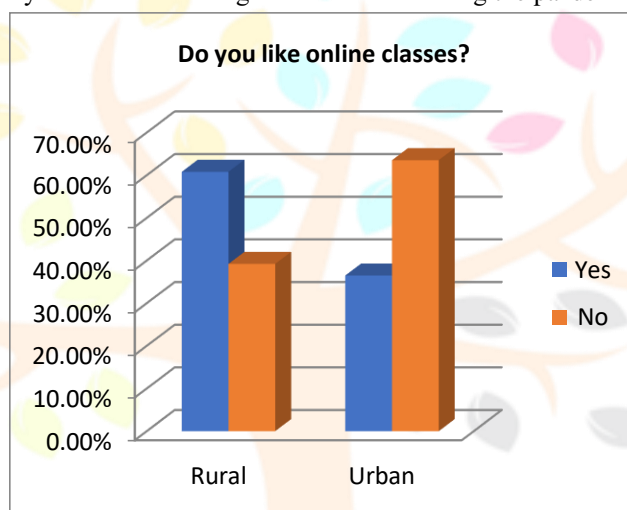


Fig.4. Review towards online classes

When students asked about 'Do you like online classes?' near about 40% rural students dislike the online classes, but more than 60% urban students dislike the online classes (Fig.4). It's mean urban students are more effected or not in favor of online classes. Urban students were felt more protested athome during Covid-19 pandemic, because they have no option other than remain at home all day. There was a main reason of lockdown everywhere.

In online classes, students are not much interacting with teachers and their classmates as they can doin offline. This was maybe the main reason for Fig.4 students for choosing this 'No' option.

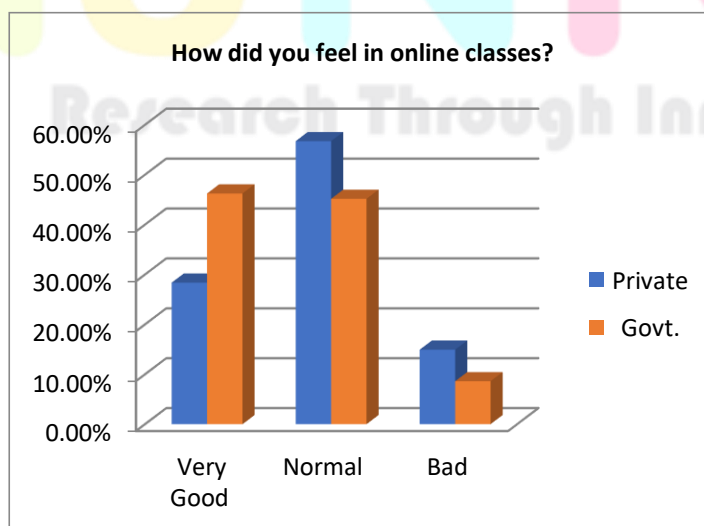


Fig. 5. Feel towards online classes

During the online classes, students attend their classes continuous, due to regular use of mobile (mostly were use mobile (table 3)) or other device, there are bad effect of screen and rays on eyes and health, that's why students feel stress. The student's majority of normal feel in online classes were from Private schools but 40% plus Govt school students choose that the they feel Very Good and Normal in online classes. According to this graph (Fig.5) data the Private school students were more effected from online classes.

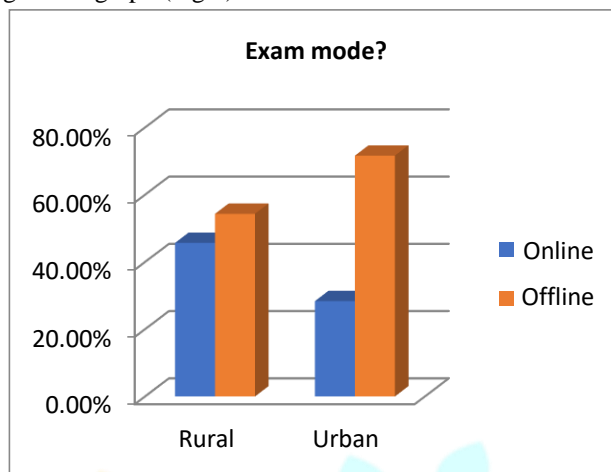


Fig 6. About exam mode

During pandemic most of exams were conducted through online mode. Rural students prefer online mode of classes as compare to offline mode. But when it comes to exams, rural students prefer offline mode of exam over online mode. From urban and rural data most of students prefer offline mode of exams over online mode. Reasons of choosing offline mode could be network problem, institutional software issues etc. Most of urban students chose offline mode as compare to the online mode. As canbe seen in (Fig.6).

onclusion:

From last 2-3 years, due to novel Corona virus education system got affected very badly. Overall all institutions of every country switched to online mode from offline mode. In India, Online mode was sonew to all the students basically for rural students. Changing of education mode during Covid-19 affected the students of all age group. The impact of Covid-19 is not fully positive or fully negative on students of private as well as public sector.

This study showed that rural and urban students were affected by some factors like technical, health, demographic etc. Online classes were disliked mostly by urban students (Fig. 4). It seems that online classes put negative impact more on education of urban students. In exam mode, urban students like exams to be conducted offline and comparatively rural students like exams to be conducted online (Fig. 6).

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