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EFFECTIVENESS OF ONLINE EDUCATION TOOLS AND TECHNIQUES: A STUDY IN SANJHARIA VILLAGE OF JAIPUR DISTRICT

Katha Mathur[1], Dr. Sony Kulshrestha[*2] and Dr. Arundev Pareek[3]
[1]Research Scholar and [2]Associate Professor and Department of Law, Manipal University Jaipur, Dehmi Kalan, Jaipur, 303007, Rajasthan
[3]Assistant Professor, Department of Languages, Manipal University Jaipur, Dehmi Kalan, Jaipur, 303007, Rajasthan
[2,3]Sonykulshrestha@gmail.com

ABSTRACT
"Padhega India TabhitohBadhega India"
To support digital India movement, it is the requirement of the hour to make digital tools available to every house at very low cost for uninterrupted education. From last two years due to pandemic of COVID 19, this requirement has converted into the 'basic need'. The aim of the study is to check the effectiveness of online education in past one and half year of pandemic. Nine schools of Sanjharia village of Jaipur district in Rajasthan state has been short listed to conduct the study. Reasons of selecting these nine school were based on (1) the strength of the students and faculty, (2) internet facility available in the form of wifi or LAN in the school campus and houses, (3) availability of the digital tools such as smart phones, tablets, laptops or desktops and, (4) preference mode of classes whether online, hybrid or deferred till the normal situation and last (5) whether teachers, students and parents were satisfied with this alternate arrangement of education.An online questionnaire was floated during the pandemic and after normalization a face to face interview session with the teachers, students and their parents was conducted for collecting the data. The findings of the study are showing that though there are many hurdles say technical, financial or knowledge based in the initial days but later on everybody has adopted and being adapted with this basic need of new era of digital education.

Keywords: *Digitalization, Education techniques, e-learning platform, Pandemic, Online education.*

INTRODUCTION

Sanjharia is a village in Jaipur district in Rajasthan State. It has a total population of about 2,579 peoples. [1]The main earning source of the villagers is farming in this area. But due to water scarcity number of other sources of earning are also explored by the villagers. This village is adopted by the Manipal University Jaipur for its rural development under its corporate social responsibility, so the livelihood of the villagers now includes employment in the University as well as in its various ongoing development projects.[2]Total 15 schools are there in Sanjharia village in which one is government school and other fourteen are private schools.

In the pandemic time when everything was uncertain, declaration of lockdown was a regular exercise to break the chain of infection and moreover life loses of the family members and near and dear ones, affected each and every aspect of survivalincluding education sector. The authors of the study are also from a nearby education sector and were similarly affected during pandemic. This gives the authors a reason to evaluate the effectivenessof e-education provided by the schools to its students those who are attending classes from their homes and even when there was a complete lockdown, teachers were also taking classes from their homes.

VALUE OF THE DATA

- The data is useful for further research to comprehend the use of online educational tools by the school-going students for the off-campus teaching-learning activities during the COVID19 pandemic (lockdown).
- The responses can be used to analyse and test the hypothesis to identify the relationships between the experiences and the perceptions of students in relation to Online Education.
- The data can be used for comparative studies in all related fields and domains of online teaching and learning activities. The data could also be used for future possible disruptions, from local to regional and from national to global.
- The data can be used to identify the choice of approach to technology in blended learning for the students. The data may be helpful to meet the challenges students face during the online learning.
- The data can be beneficial to researchers, academicians, educationists, policy makers, etc. to gain further insights on the online alternative learning tools used by the teaching-learning fraternity, for decision and policy making during such emergency situations. The data can also be used for policy formulation and strategy identification with respect to integration of digital learning (as an added component) to supplement the face-to-face campus experience.

DATA DESCRIPTION

1. **Internet Facility Available:** The study was conducted to retrieve the data on various modes of internet facility, the result is shown in Table 1.

Table 1: Demographic profile of Internet facility usage

Categories	Sub Category		LAN	Mobile Data	Wi-Fi	2/3 Tools
Teachers	Gender	**Total No.**				
	Male	10				
	Female	13	0.23%	26.08%	52.17%	17.39%
Students	Gender	**Total No.**				
	Male	51				
	Female	79	Nil	60.76%	21.53%	17.69%
Students of	Class	**Total No.**				
	1-5	47	Nil	35.44%	42.85%	30.43%
	6-8	32	Nil	30.37%	25.00%	4.34%
	9-10	38	Nil	24.05%	25.00%	52.17%
	11-12	13	Nil	10.12%	7.14%	13.04%

The Table 1 shows that teachers relied more upon wi-fi facility than the mobile data or LAN. In case of students the study shows the different result, they relied more on mobile data in comparison to the other available modes. If we are talking about LAN, which was least in use, the reason is it was mostly used by the faculty members, because they were coming in the premises of the school so few schools were providing LAN facility there. In village houses this LAN facility or to say broad band facility is not in practice.

2. Availability of the digital tools such as smart phones, tablets, laptops or desktops: The survey was conducted to retrieve the data on various digital tools to use for attending/delivering lectures, the result is shown in Table 2.

Table 2: Demographic profile of Digital Tools usage

Category	Teachers	Students
Mobile	26.08%	60.76%
Laptop	60.86%	36.15%
Desktop	4.34%	Nil
Tablet	8.69%	3.07%

Chart: 1 Device sharing by the Teachers with other family members (Data is in percentage)

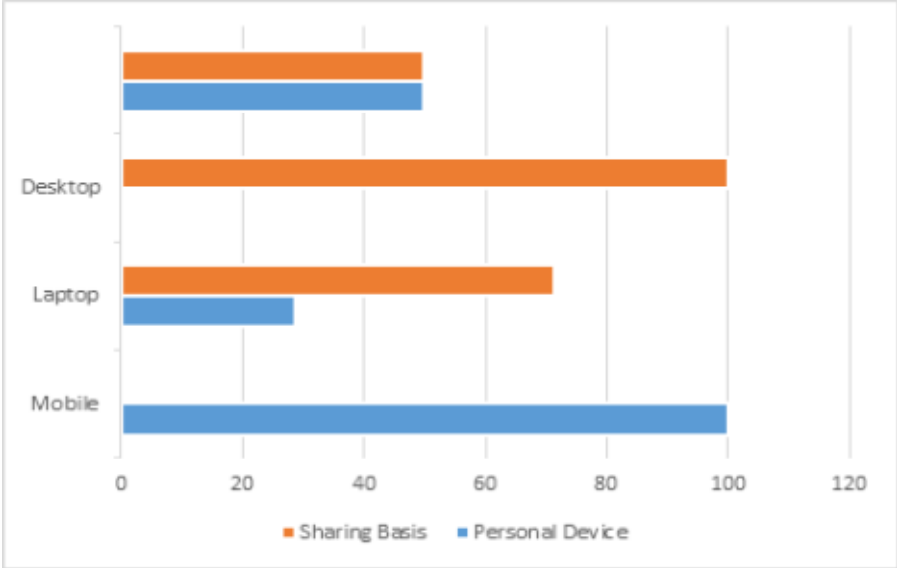
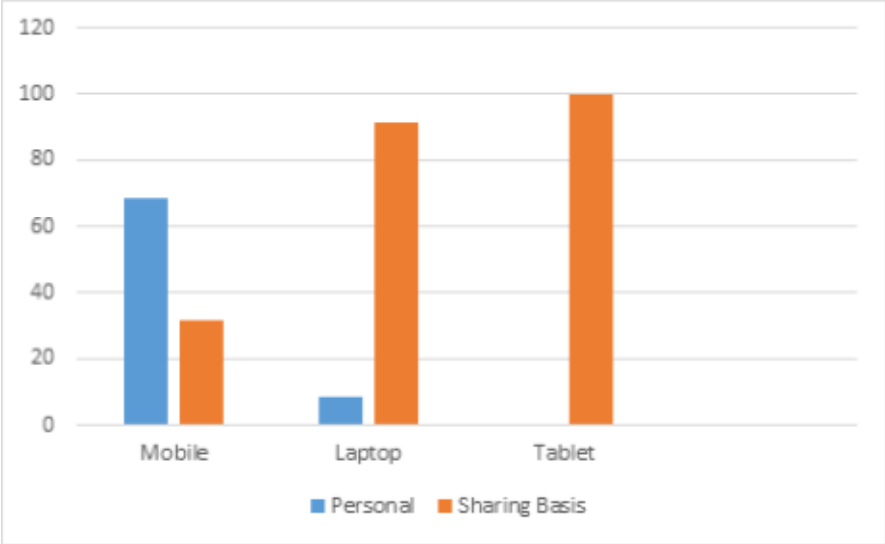


Chart: 2 Device sharing by the Students with other family members (Data is in percentage)



The analysis of collected data shows that teachers were using laptops as their primary tool for giving lectures and least used device was desktop. In the other hand students were taking classes more from mobiles and least used device was laptops and tablets. Use of desktop was found nil in case of students.[3] (Table 2).

The Chart 1 is about the use of digital devices on the basis of their availability at home. Dataset shows that teachers are mostly using mobiles at personal level but laptops and other digital devices on sharing basis. On the other hand, in more than 60% students are having personal mobiles but if we are talking about laptops or tablets, the number of devices are at low level that's why they are using it on sharing basis with other family members. (Chart 2).

3. Preference Mode of Classes: The study was conducted to retrieve the data on preferable mode of conduction of classes, the result is shown in Table 3.

Table 3: Demographic profile of Preferable Mode of Class

Category	Teachers	Students
Online Mode	69.36%	74.61%
Hybrid Mode	21.73%	0.76%
Deferred Teaching	0%	12.30%
Any Mode	8.69%	12.30%

Table 3 shows that teachers' most preferable mode of class taking is online mode and least preferable mode was deferring the classes till the normalization of the pandemic situation. Few faculty members were in favour of hybrid mode of class conduction to facilitate the students those who wants to come to the school when government eased the lockdown and campuses were opened with 50% occupancy. On the other hand, same like teachers, most preferable mode of conduction of classes opted by students was also online mode. 29.25% students were in favour of deferred classes till the normalization of the situation.

4. Effectiveness of this alternate emergent mode of education: This study was conducted to evaluate whether this emergent mode of continuous education was a successful attempt or not. The result is shown in Table 4.

Table 4: Demographic profile of Effectiveness of the Online Education

Category	Satisfied	Not Satisfied
Teachers	77.75%	22.25%
Students	92.28%	7.72%
School Administration	75.00%	25.00%
Parents/Guardians of the Students	47.33%	52.67%

The Table 4 is very much clear from the point of view of the Teachers, Students and School management that they were satisfied with this alternate mode of conduction of classes and its effectiveness. On the other hand, from the point of view of the parents, they were not very sure about the effectiveness of this e-mode of classes.

Experimental Design, Materials and Methods

The survey is mainly conducted in a scientific manner which includes an empirical approach of collection of data. This includes a circulation of a questionnaire based on the research questions, one to one interaction with teachers, management of the school, students and their parents to analyse the effectiveness of the e- tools and techniques of online education. it was concluded on 153 samples (Students and teachers). Additionally, 31 more responses were collected through a face to face interview to take the views of school management and parents on whether they are satisfied or not satisfied with this new regime.[4]

Sample size: Initial sample size of the study was 160 (including teachers and students and for last research question even parents and school management was also on count) using various internet tools but responses of questionnaires were found invalid due to several reasons so the actual sample size reduced to 153 (Students and teachers) and 31 (School management and parents).

Data collection tools: This study was basically based on primary data collected through a structured questionnaire and interview techniques, administered to 184 respondents (153 and 31).

Data analysis tool: A demographic presentation is made through tables and charts. No further analysis has been conducted on the data.

Interpretation of the Result;

The results are very much clear from the point of view of the Teachers, Students and School management that they were satisfied with this alternate mode of conduction of classes and its effectiveness. On the other hand, from the point of view of the parents, they were not very sure about the effectiveness of this e-mode of classes. The main reason was because they were not sure whether their wards are actually attending classes or just playing mobile games or watching movies online during the classes. And moreover they had been promoted in next classes without formal exams.

LIMITATIONS

The main limitations of this study are as follows-

1. The selection of respondents for the study was on the basis of purposive methodology structure so this study is only the result of the opinion of this sample size.
2. Due to the small sample size the study is not having universal applicability.
3. Duration of the study was almost one year, it was conducted during pandemic so when the government had relaxed the rules, teachers and students were in dilemma of mode of conduction of the classes. That's why this study doesn't has connection after unlock process.

CONCLUSION

This study was conducted in both the ways ie. one to one interview and floating of questionnaire. Sometime face to face interaction reveals many other layers of the ground which an online questionnaire can't do. It was come into the notice of the author that during lockdown when schools were arranging online classes, teachers got time to spend with their families, what they were lacking during normal course of classes. It gave them motivation to experiment with their technical skills and provide e-study material by preparing themselves. Students were happy because now parents were giving them the devices what otherwise they were not allowed to use or use with time restriction. They were enjoying learning with timely food availability at home even with their choice of dishes. Few of them those parents are farmers got time to help them, few attended other online hobby classes. School administration was satisfied with timely arrangement of alternate learning platform without compromising with the quality of education. But concern of a parent left the question mark about the inculcation of quality education in their wards! Conclusively, education is a continuous learning process, which should not be stopped, we are here to be adapted with any condition whether it was a pandemic Covid 19.

Ethics Statements

The survey respondents were targeted from multiple sources. On the first page of the survey content, a participant-information letter was linked which all the respondents were required to go through, before starting the survey. This information letter for the respondents, was the first step to their consent of moving further with the survey. At any point of time, the respondents were free to withdraw themselves from the survey, by merely closing the survey link in their browser, or by not clicking on the 'Proceed' option. Moreover, the respondents who proceeded further, were required to have given their consent merely by clicking on the final 'Submit' button (as indicated in the participant-information letter). At the very beginning of the survey, all respondents were asked to confirm their age, and those falling under 18, were informed with the following note, about their NOT being eligible for the survey: "This survey is intended for students who are 18 years or older. Unfortunately, your age does not permit you to participate."

CreditAuthor Statement

Sony Kulshrestha: conceptualization, sampling, methodology, writing, reviewing and editing. **Katha Mathur**: data curation, writing- original draft preparation. **ArunDevPareek**: software, validation and face to face interview conduction.

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Declaration of Interests

The authors declare that no-known-financial interests and/or no personal relationships could have appeared to influence the research findings/work.

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