



Impact of E-Learning During covid-19 Among Students: A Survey

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ABSTRACT:

The aim of this study is to analyze the impact on e-learning among various schools , colleges and universities during covid -19 period . As we all are aware about this pandemic time. All universities , colleges and schools due to this pandemic switched to virtual learning from conventional way of learning . As all schools , colleges and universities are closed all classes are conducted through virtual learning platforms or applications. In this paper a well-structured questionnaire survey method is used to examine the college , school and university student's and faculties teaching-learning experiences during covid-19 period. This questionnaire based survey is being conducted in various schools ,colleges and universities. In this study stratified sampling method is adopted and sample size is two hundred across some schools and colleges of India .

This paper present the results of a survey conducted in school ,colleges and university students who were studying from home during covid-19 . What difficulties they are facing while and what benefits they are getting while learning at home . This survey covers the students of age group between 10years and 23 years .The questionnaire consisting of various pros and cons of e-learning during this most critical time

Keywords : *e-learning ,online education, Covid-19.*

1. INTRODUCTION

As of 11 March 2020, WHO declared Diseases a pandemic and urged all the countries to treat, detect and reduce the transmission for the safety of people. Due to this the whole world including india remains lockdown and maintains social distance. It creates a great impact on the global economy. Even educational institutes like schools, colleges and universities remain closed temporarily. All types of teaching and learning activities were conducted online during this time . Students and Teachers were completely dependent on internet and technology for taking and conducting classes respectively. So, this survey is being done to analyse the effectiveness of online learning during covid-19 among under graduate , post graduate and school students. Some questions related to their experience of e-learning were framed to analyze their satisfaction level.

In this research we consider students who are between the ages of 10 and 23 years who are studying in schools, colleges and universities . To understand the requirements, it is necessary to assess the current situation. This paper analyze the results of a questionnaire based research survey for assessing and understanding the effectiveness of e-learning among students .

The rest of this paper is divided into the following sections. First part is the introduction ,second part consist of literature review, Third part presents details of research approach and research methodology used. Analysis using charts is shown in fourth part. A brief discussion of the results is presented in fifth part . Finally, conclusion discussed in sixth part.

2. RELATED WORK

[2]This paper focus on e-learning meant for future and will become part of new-normal . It discussed the benefits such as cost reduction, increase convenience and flexibility, improves employee knowledge, ease of content update and drawbacks such as requirement of self-discipline and time management skills, reduced social interaction, not appropriate for every topic, lack of practice based learning, reliance on technology etc of e-learning. Further it discussed the arguments ranging from learner's , educators and content issues, arguments for institution to engage students and make them participate in teaching –learning process, arguments by teacher to move from offline mode to online mode, the lack of standard for quality, quality control, development of e-resource and e-content delivery ,it highlights the stipulations by government regulating e-learning, barriers in its deployment, ensuring the digital equity. Finally it ends with the conclusions and suggestions, how e-learning can be made best efficient in this time of corona era.

[3]This paper highlights different aspects of e-learning and its main factors . These cover the learner's motivation, the learner's attitudes, technology, readiness of materials, and the learning context, followed by the key challenges and opportunities of using E-learning within higher education. The paper also highlights some studies from different parts of the world including Oman, highlighting students' perceptions towards E-learning. A good mix of both traditional and E-learning needs to be worked harder towards before being pushed into to an E-learning situation only, the context of Coronavirus being an example.

[4] reported that students are always preferring group task than the individual one and they want to help their friends who are not able to attend the online learning platform. The study also reported that teachers are not that familiar with ICT tools which become one of the important constraints for online mode of learning. [5] clearly stated that techno pedagogical as well as digital skills of both teachers and learners need to be taken care of. So regular workshops, webinars, conferences are very important for the academicians, research scholars, students and stake holders so that they can develop professionally, share their own knowledge, experiences and become techno savvy. We have to keep in mind certain factors for smooth conduct of the online programme. [6] in the study focused on certain factors like digital resources, infrastructure facilities, learners' and teaching staffs' skill of technology, motivation, confidence, interest and positive attitude for accepting the change situation are important for smooth and uninterrupted teaching and learning.

3. RESEARCH METHODOLOGY

The survey is conducted online by circulating google forms through email , WhatsApp , telegram , linked in etc. A set of eLearning based questionnaire is prepared and distributed among selected schools , colleges and universities. The architecture of survey research is shown in the figure below.

The population used in this survey is the entire group of entities include students and teachers of schools , colleges and universities . Survey Questionnaire was framed based on e-learning experience , which device and platforms students are using for their studies at home. The questionnaire survey consist of questions based on experiences and learning at home ,what benefits they are getting from it and other activities done by them other than studies .

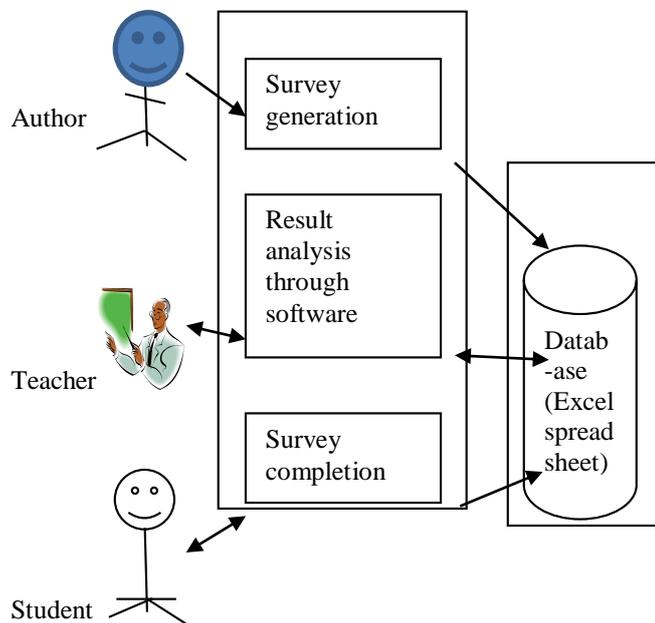


Figure 1 : Architecture of survey research

The above architecture represent the flow of survey research conducted. Survey form was generated using google form . survey form is divided into two section . In first section personal details like name ,class , age , school/college/university name were asked for research purpose . In second section Some questions related with eLearning experience during this pandemic were framed such as how they are feeling by studying online during this pandemic ,what activities are they doing at home other than studies to keep themselves motivated and energetic , which kind of devices and applications they are using for learning . Both open and closed ended type questions were asked . open ended questions were of short description type and closed ended type questions were framed with multiple options and yes/no type.

3.1 Data Collection

The students and teachers from different colleges and university of various cities were distributed google form through email, WhatsApp ,telegram etc . Approximately Responses were analyzed using google sheet , pivot table , charts and graphs etc.

The student participants were divided into four categories :-

- 1) Category 1 - 8-18 years (school)
- 2) Category 2 – 18-21 years (polytechnic)
- 3) Category 3 – 21-23 years (under graduate)
- 4) Category 4 - 23-30years(post graduate)

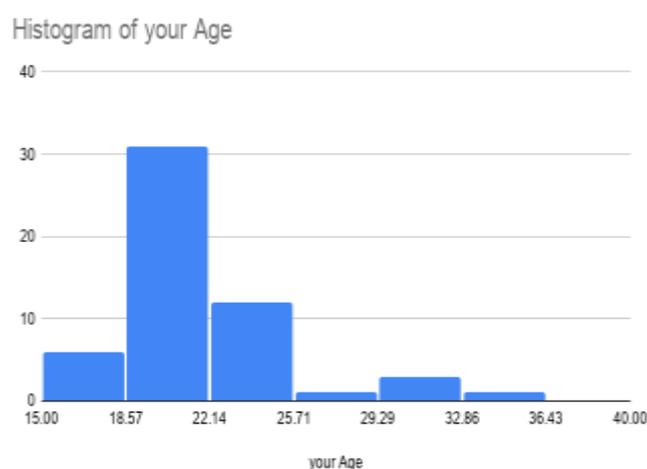


Figure 2: Age distribution graph

The above fig shows the histogram of age which clearly represent that maximum students in the range 18-30 years participated in this survey.

4. ANALYSIS

4.1 Assessment done by teachers using online methods:-

During pandemic time as students are learning online. To assess students learning efficiency assessment is very important. Mock test is a more effective method which is acceptable during quarantine time. Satisfaction level of students is depicted using the graph

1.Are you being assessed by teacher using online methods
201 responses

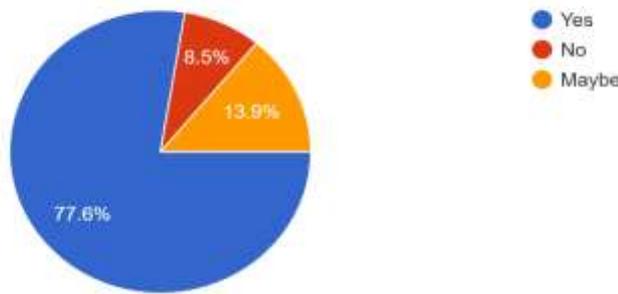


Figure 3: Assessment done by teachers

The above fig 3 shows how much percentage of students were being satisfied by assessment done by teachers using online methods . 77.6% of students responded yes as their answers .

4.2 Learning Experiences at home :-

Students were asked about their experience of e-learning during covid-19 period .Most students responded satisfactory response but some students find it difficult and burdensome period . More than 50% students find it joyful So , conclusion from the below fig 4 is that overall experience of students were satisfactory.

2. Learning at home in the COVID-19 period has been
205 responses



Figure 4:- Learning experience at home

4.3 Most used devices for learning:-

Other question asked to the respondents was about which type of device they used to prefer for doing online learning .Maximum number of students goes with the option mobile as it is portable and light weighted . Very less number of students prefer television . Although television is also a medium of learning as SWAYAM channels related with their core subjects were also running 24/7 hours . But as the fig 4 shows that it is preferred by very less students. First preference is mobile and second preference is laptop. Radio is not used by anyone nowadays. Below fig 5 depicts the status of devices used by the students for their learning purpose at home.

3. I learnt at home in the COVID-19 period mostly through –
205 responses

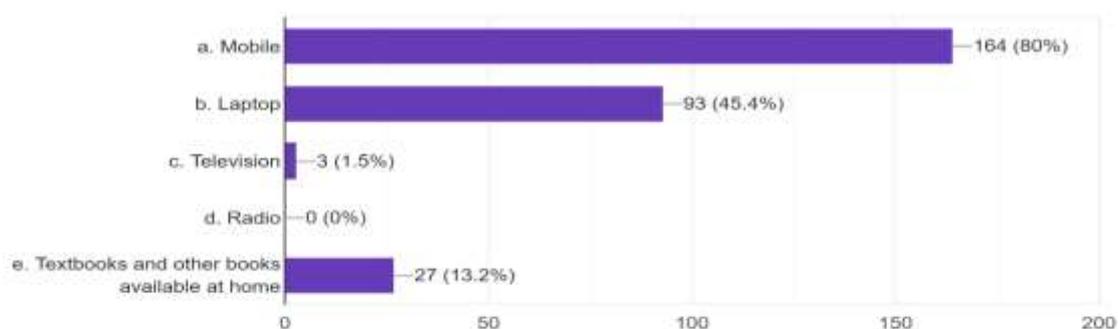


Figure 5:- Devices used for learning

4.4 Remote Learning Application:-

The next question is about their favorite remote learning application which they prefer mostly for doing online learning. Among 284 respondents around 61% students prefer zoom application for learning and approximately 36% students use google meet. Whereas 12.7% students prefer college portal , 16% prefer WhatsApp , only 3.4% prefer telegram . Remaining 9% students prefer other applications

4. What is your favourite remote learning App?
205 responses

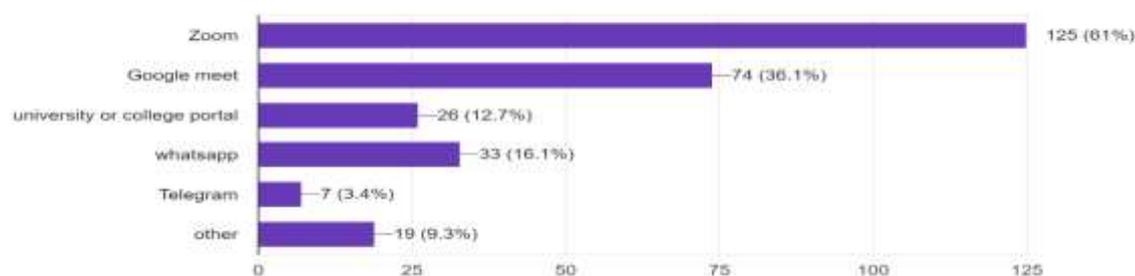


Figure 6:- Remote learning Application

4.5 Things learnt other than given in Textbooks:-

In this question it was asked that what other activities they do other than their textbooks and curriculum. The question consists of option like cooking , dancing , indoor games, outdoor games, yogasanas , mobile games etc. The most preferred activity for the respondents was cooking and mobile games which is shown in the responses of below fig 7.

7. I learnt many more things than given in the textbooks in this COVID-19 period
202 responses

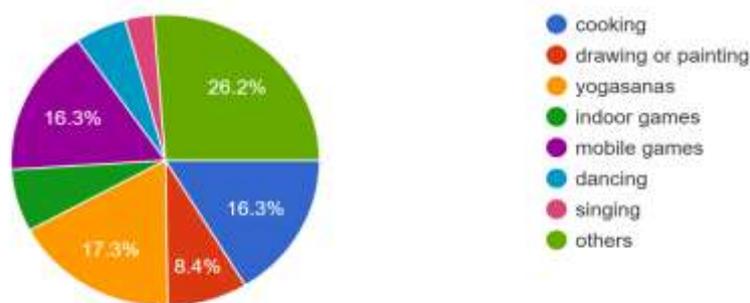


Figure 7:- Other Activities

5. DISCUSSION OF RESULTS

The present study revealed that online learning is budget friendly because students can sit in their home and learn. They can easily curtail the cost of travelling and many more but too long classess creates boredom to them. Same findings from the study by [7] that online learning is relatively cheaper mode of education in the terms of lower cost of transportation, accommodation, and the overall cost of institution based learning. Some of the major findings of the survey are stated below:-

Major Findings:-

- 77.6% respondents agreed that they are assessed by the teachers weekly and monthly with the help of small quizzes , assignments ,homework's and mock test. By this effectiveness of studies can be maintained.
- 51.2% respondents stated that they find online learning engaging and satisfactory. Whereas some people find it joyful , difficult and burdensome. But majority voted for satisfactory.
- 80% respondents reported that they use mobile for taking classes online and 45.4% uses laptops In rural areas due to financial issues some students not able purchase laptops at this critical time So , majority people uses mobile as their main device for learning.
- Most preferred remote learning application is zoom. Nearly 61 % respondents voted for it and it is the majority people prefer. Remaining applications are less priority. Zoom application is easy to use and manage.
- 17.3% respondents reported that they used to do yogasanas during this critical time to heal their body and mind. It help them in study peacefully in this pandemic situation .other activities like cooking are also preferred by most people as it is necessary for day to day life. Some people likes to play mobile games in their spare time.

6. CONCLUSION

The pandemic situation has caused a significant change in the way that information is shared. This pandemic highlights the transition from in-person instruction to entirely internet instruction. This study aimed at investigating the attitudes of students towards e-learning and its effects on students' success. Since it is discussed above at the time of this pandemic situation online learning becomes the necessity for the students . So there success is dependent on various factors like what kind of activities they were doing at that time, availability of internet , comfortable environment , availability of good devices and applications . But online learning cannot replace face to face learning completely because There may be instances where the students' ability to understand course material is improved in a setting that provides immediate in person contact with the instructor. But there also may be instances where the student is more comfortable participating in an online course. The argument is that both modes are effective given the right fit between student and course. As [8] noted in his comparison of students' perceptions of online and traditional classroom

learning, some students thrive in the online environment while others languish. So, in summary we can say that both kinds of educations are good as some find online more joyful while other find face to face learning more engaging.

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