A STUDY ON FACTORS AFFECTING E-LEARNING PREFERENCES: AN ANALYSIS ON UNIVERSITY STUDENTS OF WESTERN INDIA DURING LOCKDOWN 2020

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Abstract

Information and Communications Technology (ICT) has become a significant medium during the time spent building up a compelling learning condition during COVID-19 Pandemic. It is observed during the period, the expansion in the online e learning by the individuals occupied with instructive networks is and this seems to be a quickening inclination that will continue for the coming years. In this all situation, the impulsive need of constrained learning through the pandemic of Coivd-19 have been observed. Being a solitary alternative of continuing the learning process, it got critical to recognize and address understudies' inclinations or their nerves in during on the online classes. Present investigation means to fill this gap, and to distinguish viable components while featuring their commitments on e-learning inclinations of college understudies. The sample of the examination comprise 500 students of universities from Central Gujarat. Consequences of the investigation designates "reduction in training costs" and 'time adaptability of the learning processes' are the most esteemed elements to lean toward e learning. Then again, having courses and the tests on the web were not discovered to be much favorable. Regarding segment factors, for example, age, sex, courses, and current semester (year) group differences were distinguished. In view of the discoveries, recommendations have been suggested based on the study in the conclusion.

Keywords: E-Learning Preferences, University Students, Education during Pandemic 2020, Education during Covid-19

1.0 INTRODUCTION

Advancement of Information and Communication Technologies (ICT) leads to major modifications in learning-teaching settings. Both ICT and the Internet have played important roles in modern educational reforms. Online learning contributed to create new learning-teaching environments in the world. Advancement of ICT prompts important modifications in learning-teaching environment.

The e-learning framework is made out of the pedagogical, technological and organizational and e-learning condition must remember the three segments for request to accomplish the effective execution and it needs to attempt to make balance between them. It is realized that a portion of the parts of learning condition influence student practices during the picking up showing measure in both up close and personal and virtual learning situations. Inspiration, that enacts understudies who needs to learn more than different understudies, is the principle segment of the learning condition. Inspiration can be ordered as inborn and outward inspiration. Both inborn and extraneous inspiration of learning is

significant in understudies' commitment in the learning encounters. Natural inspiration is a sort of inward vitality originating from the individualistic base that supports premium, self-necessity, self-assurance, self-guideline and independence of learning. Outward inspiration can be characterized as outer elements that invigorate students and these outside elements can be practices of instructors, learning points, picking up showing methodologies, educating learning measure, cooperation between the understudies and educators, etc. Outward inspiration is the more reasonable way that urges understudies to subscribe to instructional objectives to expand their accomplishment, for example, winning an evaluation or degree.

2.0   LITERATURE REVIEW

At the point when distance located educators, affirmed the significance of a hypothesis of cooperation and correspondence to remove students in the time of 1970, they did not refer to the use of PCs, since PCs were not comprehensively utilized around then. The advancement of two-path correspondence with the help of communication technologies / PC networks has been a significant focal point of separation learning programs since 1990s. The writing shows that utilizing PCs in instruction can be a powerful method to rouse understudies' learning, just as a method of giving adaptability of study and rich assets for understudies' examinations. The examination discoveries likewise uncover that understudy get fitness with innovation, are urged to partake in online conversation, incited to impart, improve their presentation and diminish their sentiment of seclusion. In an investigation about getting to advocate training, the outcomes proposed that understudies' inspirational mentalities towards PCs were exceptionally identified with understudies' utilization of PCs. Then again, the writing additionally shows that utilizing PCs has become excessively quick and staff at schools probably won't be prepared to incorporate them as a basic part of the educating and learning measure and that PCs must be legitimized by their commitment to singular organizations. The study additionally uncovers that absence of specialized help is a huge issue when utilizing PCs in instructing and learning. It is important to investigate further those components, which impact understudies' utilization of PCs in tertiary instruction, for example, inclination for up close and personal contact instead of utilizing innovation, not sufficient opportunity to peruse and post email messages, absence of prompt criticism, dread of utilizing innovation, elevated levels of PC uneasiness. There are, at that point, positive and negative viewpoints for utilizing PCs in separation instruction.

The splendid development of Information Technologies has changed the way we acquire knowledge. Such as usage of internet in the education industry has become most important component. The word 'learning' has adopted a new way which is network/Internet0based learning which is also known as 'e-learning.' The e-learning' can be defined as the use of telecommunication technology to deliver information for education and training. E-learning encompasses all educational activities carried out by individuals or groups working online or offline, synchronously or asynchronously using networked or freestanding computers, since the letter "e" in e-learning stands for the term "electronic."

In recent years, e-learning culture has been regarded as an important part of future education and the promotion of lifelong learning. Since students can study anytime and anywhere, the interest of not only training companies but also academic institutions has increased. Create a learning system through online courses. Flexible access refers to the access and use of information and resources at a time, place, and speed that suits individual students rather than teachers and/or educational organizations. This enables remote students to work full-time or part-time and learns at the appropriate time, place, and pace. They don't have to live far away from where they live and work or attend meetings. Rawal et. al (2021), Poongodi M et. al(2022), Poongodi M et. al (2021), Dhiman P et.al (2022), Sahoo S.K et.al (2022), K.A et. al(2022) , Dhanraj R.K et. al (2020), Yan Zhang et.al (2020), Md Hossain et. al (2021), Md Nazirul Islam Sarker et. al (2021) ,Y. Shi et. al (2020), Guobin Chen et. al (2020)

It's over; educational institutions see the benefits of offering courses in multiple distributed locations, including campuses, homes, and other learning or resource centers in the community. As an emerging modern education paradigm, education is not without boundaries and restrictions. First, the required technical infrastructure can be calculated. Without this, there would be no e-learning. Another important theme is the careful selection and coordination of media attributes and teaching and learning strategies. Scientists, educators, and teachers need to work together; and look around to make the most of it in the most effective way possible. But first, we must evaluate the implementation of the new education system based on the characteristics of the students. After your first experience. Previous studies have revealed that the content and methodology implemented by the instructor plays a vital role in online learning. It additionally assists lecturers in serving to students become a lot of reflective, self-aware learners and establish their own vogue and intelligence profiles. Previous analysis has also advised variations between non-traditional learners and ancient learners in e-learning environments. The flexibleness and convenience of access to on-line courses are wide perceived as edges to on-line instruction.

The "anywhere anytime" nature of online course delivery has specific appeal to non-traditional students who typically bring a myriad of family considerations and workplace stress to the classroom. In an exceedingly study directed specifically at the concerns of non-traditional learners collaborating in online courses, Previous studies found that word and cluster comes also as learning engagement. In particularly, online learners valued timely, customized responses from educator to student. Some non-traditional programs are increasing the virtual classroom tools to make advising appointments using software to assist the non-traditional student. It is common for the faculty degree to be viewed a lot of in terms of a geographic point certificate among non-traditional students. Previous studies additionally noted that task worth was a big predictor of student performance and satisfaction in on-line learning and advised that or not it has heightened by group action work with "real world" issues.

3.0 The Challenges in Education During Pandemic 2020

As per the reports of UNESCO, the COVID-19 pandemic situation is one of the worst situation that interrupted the process of learning worldwide. This not only affected billion learners in additional than 190 countries and each of the continents. Discontinuing the rational education in Universities / institutions / schools and substitute education extents have posh 94 % of the world's student population. The COVID-19 pandemic crisis is reducing the opportunities for several of the leading susceptible broods, adolescence, and adults who are lacking with the enough availability / accessibility / affordability of resources like internet / equipment. For developing better understanding of the Intermediations for Effectiveness of on-line Learning method with the standpoint of fish bone diagram.
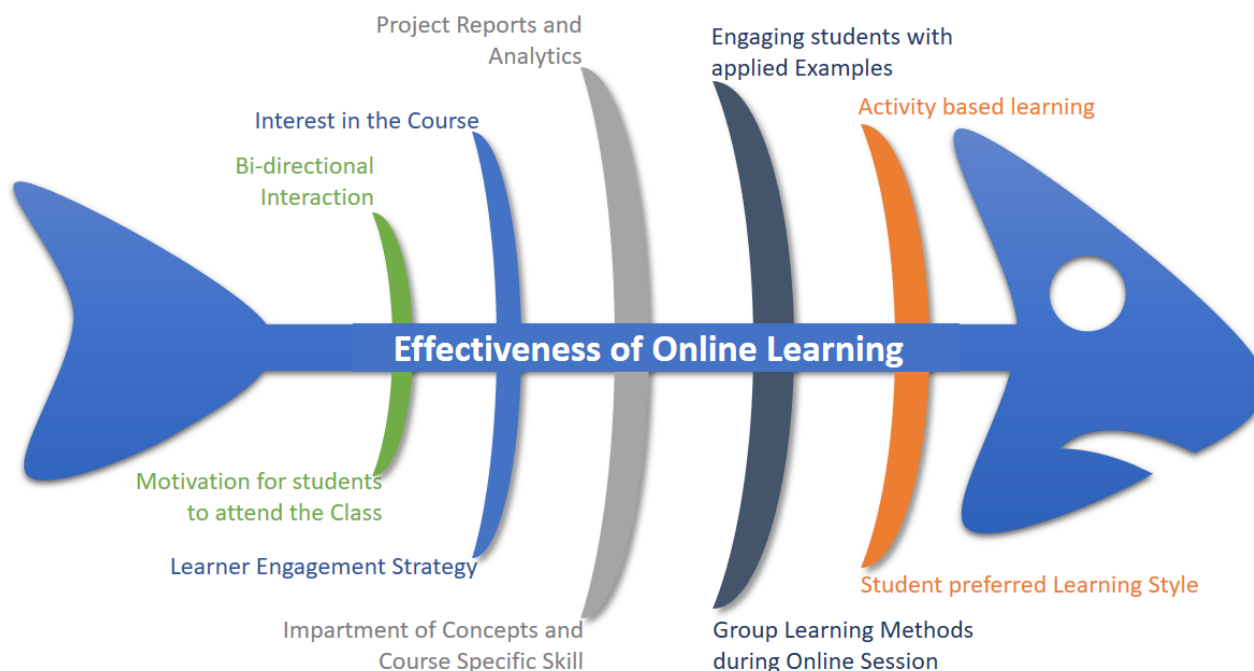
[Figure-1: Intermediations for Effectiveness of Online Learning Process: Fishbone Model]

3.1. Bi-Directional Interaction

To develop the performance in undertaking on line learning includes interactivity and for that, students are required to broaden a sense of technology competence. Whilst our most tech-savvy students do not have any troubles, leaping proper in, others can also need a scaffolder technique to undertaking online interactivity.

3.2. Motivation for Students to attend the online Class

It is expected from the college students to feel passion for mastering and to be intrinsically prompted— to be driven from inside. With a good deal gaining knowledge of moving to at-domestic surroundings, these pupil characteristics are extra vital than ever, and the way that we, as educators, body at-home learning experiences can have a profound effect on how college students experience approximately them. This may be in particular important for some college students. Consider the boundaries, which can affect scholar gaining knowledge of at home: loss of internet, gadgets, and aid. Add to the mixture competing priorities like helping siblings, having important jobs, and dealing with strain and trauma, and it's clean that motivation, resourcefulness, and self-law are essential.

3.3. Interest in the Course to attend the online Class

There has been sparse proof approximately the call for online learning reviews among traditional university certain college students. With this lack of market information in thoughts, art & science institution located to discover the perceptions of conventional college bound college students approximately on-line teaching - studying.

3.4. Learner Engagement Strategy

For better engagement in on-line teaching includes functional presence in the on-line surroundings. Beyond studies indicates that once the scholars see an energetic instructor in the path website they will be more influenced to engage themselves. Furthermore active engagement by way of the instructor promotes the increase of a web network, a safe place to examine and ask questions which ultimately ends in successful student studying.

3.5. Impartment of Concepts and Course specific skills

It is far certainly a want for encouraging a regular impartment of know-how as in step with graduate attributes and at the same time, contributing to the development of the unique capabilities required as an expert skill ability to apply the path knowledge.

3.6.   Engaging Students with Applied Examples in Online Course

The teacher / professor created contend for effective engagement of student in online course engagement consists of special competencies for effective engaging the students. Within the path toward making use of idea and knowledge in a significant manner, the most advanced method is to offer a narrative of the case and ask the scholar to reply by either answering questions or developing an intervention primarily based on an idea or information base included in the route. Even though there's nothing incorrect with this tried-and-genuine method, with the addition of technologies like Adobe Captivate or Articulate Storyline, possible activate students to take movements to move the story forward, pick out reaction options with variable feedback, and take part in a manner that adds a visible issue to the revel in.

3.7.   Group Learning Methods during Online Class

Group Studies provides a variety of benefits to collaborative on-line group activities, as well as modelling institution standards and establishing expectations. To begin building a collaborative online feeling of network help, collaborative organizing actions must be group-entered. This may readily be accomplished through introductory sports that force newcomers to get to know one another. As a result, amazing things will happen later.

3.8.   Project Reports and Analytics

Teamwork and Group Projects have located to be an effective device for coaching better-level cognitive capabilities. College students discover ways to comprise disparage thoughts and meld them right into a unmarried answer, while concurrently gaining knowledge of to work and communicate inside a set in a constructivist surroundings. Diverse mastering control software (LMS) gives short reviews and Analytics that assist display student's development over the instructional and offer support to teachers in identifying ranges of attainment.

3.9.   Differentiated Learning Strategies

For developing a cohesive intellectual space for rookies to apply their social, cultural and linguistic heritage to validate and create expertise, the maximum distinguished challenge in online teaching is to enforce the differentiated studying techniques for keeping the hobby of scholar.

3.10.   Activity based -Learning

It is a proven methodology that learning by doing is the best way young learners experience and retain concepts. Online educators may develop various activities that could making linking of the learning the concept with help of the activity and its explanation.

4.0 Significance of the Study

During COVID – 19, a research on students' views toward e-learning was conducted. Pandemic gives information that may be used by various educational institutions to build a strategy for providing better and more student-centered pedagogy. This research was conducted for students enrolled in various colleges and institutions who wanted to understand more about the role of e-learning during the epidemic. The primary advantage for students is that they may keep their studies going with the assistance of digital technology.

5.0 Objectives

1.   To identify the E-learning resources and its current trend among students during COVID – 19 Pandemic.

2. To identify the student's interest and attitude towards E-learning resources in Western region of India.

6.0 Methodology

This study is primarily based on primary data. The facts have been accrued from students, who are presently pursuing their undergraduate and postgraduate degrees in different faculties and universities. The on-line questionnaire thru Google Forms has been prepared for gathering data. Among the students, solely five hundred samples have been scrutinized primarily based on the stratified sampling method. The duration of study was in the month of April 2020. The college students had been requested to rank their perception based on on-line teaching and learning preferred as effective towards educational achievement. Each factor on instructing and gaining knowledge of is given a vary from 1 to 5 of which 1 being the least desired and 5 being the most preferred.

7.0 Results and Discussion

The total number of people who were screened was 500. Approximately 67 percent of them were from the previous year, and 62 percent were female. The age group's median was 21 to 23 years old. The frequency distribution of chosen media in online learning is shown in Table 1. The three most useful media identified by participants were email, lecture notes, and assignments posted on the LMS; more than 65 percent of members picked extremely beneficial. Online slide displays with audio, online collaborative tools, and online movies were also seen as useful media. Interaction / Query resolution with the Course teacher through video / web conferencing was seen as no longer desirable by the majority of the respondents.

Table 1.: Frequency of Preferred Media in Online Learning

	For retrieving the notification from Institute / University	For Accessing the Course ware / Learning Material Provided by Course Teacher	For searching updated information in field	As a medium for online Evaluation (Quiz / Assignment / Viva)	For Interaction / Query resolving with Course Teacher
E mail / Google Suit	452 (90%)	345 (69%)	--	482 (96%)	345 (69%)
Internet Based LMS (Similar to Google Classroom)	280 (56%)	270 (54%)	--	354 (71%)	367 (73%)
Threaded discussions	182 (36%)	127 (25%)	70 (14%)	--	345 (69%)

Blogs	08 (2%)	05 (1%)	186 (37%)	NA	--
Online Courses	--	359 (72%)	70 (14%)	435 (87%)	NA
Conference Calls	132 (26%)	--	--	--	268 (54%)
Video / Web conferencing	398 (80%)	--	--	--	186 (37%)

Table 2.: Preferences of Tool / Technology Platform with Course Specific Respondents

	Students of Engineering Courses (N=105)	Students of Paramedical Courses (N=85)	Students of Computer Applications Courses (N=98)	Students of Management Courses (N=212)	Total (N=500)
Ring Central Video	5 (5%)	NA	15 (15%)	NA	*20 (4%)*
Flock	NA	NA	12 (12%)	NA	*12 (2%)*
Skype	9 (9%)	74 (87%)	85 (87%)	87 (41%)	*255 (51%)*
Zoom	56 (53%)	11 (13%)	94 (96%)	198 (93%)	*359 (72%)*
Cisco WebEx	10 (10%)	72 (85%)	91 (93%)	117 (55%)	*290 (58%)*
GoToMeeting	54	24	85	28	*191*

	(51%)	(28%)	(87%)	(13%)	**(38%)**
Google Hangout	**85**	**68**	88	**178**	*419*
	(81%)	(80%)	(90%)	(84%)	**(84%)**
What's App Call / Video Conferencing	**94**	**29**	**90**	**207**	*420*
	(90%)	(34%)	(92%)	(98%)	**(84%)**

As a preference of students towards selection of Tool / Technology Platform Table-2 represents the details including the Course Specific Respondents. Zoom and Google Hangout are the most preferred technology preferences. Ring Central Video and Flock are least preferred and, even many are not having awareness of it.

7. Analysis

The survey consists of 120-paired objects (240 complete items) where the same query the researcher requested involving Online Teaching (OT) and of Traditional Teaching (TT). An evaluation of these one hundred twenty paired objects printed that for 62 sets, from the respondents the general reply for OT have been noted with the significance (.05 level), that is diverse from the normal range of TT preferences. Likelihood of arbitrarily selected 67 or additional noteworthy variations from 128 set is about 50%. So it is concluded that University students are not having similar perception of selection towards OT and TT. In consideration of the same, the separate evaluation of OT and TT have been implemented.

In alignment to the objective of the study prominent 5 indicators have been selected for checking the effectiveness of the OT as shown in Table-3.

Table 3.: Effectiveness of Online Teaching (OT)

Indicator No.	*Target Preference*	*t-value**	*Alpha*
01	*University Students believe that TT is more adaptable than Online Teaching.*	*.343*	*.732*
02	*Out of Traditional Teaching Method and Online Teaching Methods. We prefer Traditional method more interesting against Online Learning Methods.*	*1.761*	*.081*

03	It is preferred to opt for TT method than Online Teaching.	.272	.786
04	Students are having similar interest in an OT method same as in traditional learning methods.	-1.386	.168
05	My Preferred involvement in learning experience is towards more physical classroom directed than technology involved.	1.91	.074

*The Analysis based on the value: the figures indicating positive value displays the respondents are agree with the statement. Whilst, figures indicating negative value directs that a respondent disagrees with a statement.

The preferences of respondents incline towards not much eager to have online learning against physical education. Respondents have also shown a preference of involvement in learning experience is more towards physical classroom directed than technology involved (Indicator #5). Conversely, the students are having the preferences that out of Traditional Teaching Method and Online Teaching methods. They prefer traditional method more interesting against online learning methods. (Indicator #2), respondents get agreed but with having less level of significance. As far as the preferences to opt for TT method than Online Teaching, they have not shown the preference of OT against traditional guides (Indicator #3). For having similar interest in an OT method same as in Traditional learning Methods, they ought to have no more significant difference though interested by discovering uses to be not in a large group (Indicator #4).

8.   Conclusion

The adverse situation of COVID-19 had badly affected on education across the world. It reset all the policies and procedures of delivering effectiveness in teaching and learning. However, educators have maintained the continuity in education against all the constraints. The approaching trend looks to be e-learning. It has been spreading widely. The online learning technique is enjoyable and suited for everyone. Many students have shown a desire for studying at a convenient time using technology, based on their availability and comfort. This permits the learner to get admission to up to date content material on every occasion they prefer it. Due to the large set of benefits, it offers to students. Even though from the perspective of college students gathered during this study and shown in fish bone diagram, the essential work to increase the deep interest in on-line studying mode competing to the traditional mode is yet to require extra efforts for developing better involvement of students. This research about understanding of Several factors influence students' media preferences and provide insight into future study topics. Students did not favour affluent media over lean media, according to

previous studies. Given that learner-content interaction has a significant impact on student pleasure, both instructors and course designers should pay attention to content design and organization. Instructors should show an interest in their students and offer timely feedback, or encourage college students to ask questions through various means. Implementing a technology training orientation prior to the commencement of online courses can assist students gain confidence in completing Internet-related tasks needed by the course and, as a result, improve student satisfaction. The study revealed that there is a connection between the inclination for method of showing learning conveyance and it develops of self-viability, e-learning inspiration and errand esteem. The understudies with high assignment esteem, e-learning inspiration and self-adequacy favored concentrating in mixed learning conditions. In addition, this study did not have a look at in the context of online learning, students' past experiences with each form of media. Future study might look at how students' previous science experiences influence their media selections.

9.   References

A. S., Dr., & P. R., Dr. (2020). Indian Higher Education: Issues And Opportunities. *Journal of Critical Reviews, 7*(02), 542-545. doi:10.31838/jcr.07.02.101

AR.Saravanakumar, B., 2021. *Effectiveness of Interactive E-Content Module in Enhancing Students' Achievement in Mathematics*. [online] Sersc.org. Available at: <http://sersc.org/journals/index.php/IJCA/article/view/11722> [Accessed 5 August 2021].

AR.Saravanakumar, B., 2021. *Effectiveness of Interactive E-Content Module in Enhancing Students' Achievement in Mathematics*. [online] Sersc.org. Available at: <http://sersc.org/journals/index.php/IJCA/article/view/11722> [Accessed 5 August 2021].

https://www.un.org/development/desa/dspd/wpcontent/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf

AR.Saravanakumar, B., 2021. *Effectiveness of Interactive E-Content Module in Enhancing Students' Achievement in Mathematics*. [online] Sersc.org. Available at: <http://sersc.org/journals/index.php/IJCA/article/view/11722> [Accessed 5 August 2021].

Prabakaran, B., & Saravanakumar, A. R. (2019). The effectiveness of smart kit in enhancing students' mathematical process skills and achievement in mathematics. *International Journal of Recent Technology and Engineering*, *8*(2S3), 191-196. https://doi.org/10.35940/ijrte.b1035.0782s319

Means, Barbara & Toyama, Yukie & Murphy, Robert & Bakia, Marianne & Jones, & Karla & Planning. (n.d.). *Ed505824*. ERIC - Education Resources Information Center. https://eric.ed.gov/?id=ED505824

Monyai, R. B. (2018). Adult learning. *Handbook of Research on Student-Centered Strategies in Online Adult Learning Environments*, 183-205. https://doi.org/10.4018/978-1-5225-5085-3.ch009

Mugenyi Justice Kintu, & Chang Zhu & Edmond Kagambe. (2017, February 6). *Blended learning effectiveness: The relationship between student characteristics, design features and outcomes*. International Journal of Educational Technology in Higher Education. https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-017-0043-4

https://library.educause.edu/resources/2017/2/2017-horizon-report

Radha, R., Mahalakshmi, K., Sathish Kumar, V., & Saravanakumar, A. R. (2020). *E-learning during lockdown of COVID-19 pandemic: A global perspective*. SERSC. https://sersc.org/journals/index.php/IJCA/article/view/26035