

New Edge Of Education: Perspective Of Teachers And Students Towards Online Education In Higher Education Of India

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Introduction:

During to Covid-19 outbreak, there is an increased dependency on web-based technology. People all around the world rely heavily on online platforms to communicate, entertain, and to gather information. Similarly, the educational system is also very much depend on online technology to pursue scholarly activities. (Shahid and Ahmad 2018;GOP 2020)

Increase in online teaching and learning are influenced by issues like population growth (Broad, 1997), institutional competition (Daniel & Cox, 2002), and changing learner needs (Willis, Tucker, & Gunn, 2003). More clarity is necessary regarding relevance, effectiveness, restrictive and facilitative dimensions of online education through research. For example, instead of providing support, facilities and training of pedagogical skills, faculty are increasingly expected and encouraged to develop and teach online courses.(Choi & Park, 2006)

In an educational milieu e-Learning is as an approach in which information and communication technologies are used to communicate and collaborate in an instruction and learning. Learning environments is one of the significant aspect where the educational process is experienced online and it includes technological expertise that replaced traditional classroom training with web-based components. (Imran S.2012).

Most educational institutes have shifted to online learning platforms to keep the academic activities going. In India, technical constraints like suitability of devices and bandwidth availability poses a serious challenge. Teachers are the disseminators of information and hence important in promoting the success of innovations such as gamified learning management systems. While studies have revealed that students have a positive perception of the use of gamification in online learning (Boeker et al., 2013; Buckley & Doyle, 2014; Nevin et al., 2013; Urh et al., 2015; Woo, 2014).In this paper we explore the implementation of effective e-learning through moodle and also present how the various facilities of Moodle are used by tutors to provide interactive and stimulating learning experiences in providing higher education in various colleges of technology(Chourishi et.al. 2012)

The work tries to explain the opinions of students as regards the impact of online courses, their comfort in its usage, and the support received from teachers in online classes along with teachers' opinions on efficacy, teaching practice followed and training received for an online class(Joshi A. et.al.2020)

e-Learning system can fit the definition of a sociotechnical system, as they involve teachers and learners (actor), the organization and the environment (structure), the knowledge and skills being imparted (task) and the technology used for elearning (technology) (Upadhyaya 2013)

However, teachers can play a fundamental role in persuading the students for eLearning integration and adoption during the Covid-19 pandemic. It is very important to understand how teachers look at it and its potential impacts on students' academic performance (Abbasi et al., 2020).There are few studies conducted from the teachers' perspectives.

This article reviews some of the research conducted in India on the perspectives towards online teaching learning process, barriers in learning process and its impact.

Methodological Considerations:

This article draws on 14 research publications between 2006 and 2021.A literature search of the databases, PubMed, and Google Scholar was conducted using the keywords "e-learning' "Students perspective" "Teachers Perspective," "Covid-19 pandemic." and, "Online/blended learning " All articles with full text was reviewed to understand the details of the study. The studies conducted on primary data were analysed..

The inclusion criteria for the papers considered for review were:

- Studies on students and teachers perspective towards online education in India.
- Publication date between 2006 and 2021.
- Studies published in peer-reviewed journals and open access journals.

- Studies carried out on samples of primary data.

Papers which highlighted merits and challenges of online education were analysed. Metaanalysis was used, by considering the objectives of the study, factors associated for effective teaching learning, the methods used in the study, and the findings that came out from the study..Table 1 gives the summary of the 14 papers analyzed, and themain findings. All the studies are done mostly in cities, and where online survey used then it covers across the India and out of India too.

Quantitative methods were used in 13 studies; and one was on qualitative approach considered as case study. Among them one was conducted for tool development purpose. The tools used for collecting data varied; eight studies used online survey or Google Forms, standardized scales in two studies and self- structured questionnaires in four studies.

The samples for the studies was differed according to the objectives of the particular research. However seven of the studies focused perception of students and teachers towards online or blended learning from educational streams, four studies aimed at barriers and issues of teachers and students in online learning. Purpose of one study was development of attitude scale,two studies explored impact of lockdown on education and one study examined the usage of web 2.0 technology by teachers.

Table 1: The summary of 14 papers analysed and main findings							
Study No	Author(s) and date	Location of the study and Target Population	Name of the study	Study Objectives	Methodology	Tool Used	Study findings
1	P.M. Naushad Ali and Mohammad Javeed (2006)	Aligarh, Uttar Pradesh 265 faculty members	Use of Internet in Higher Education: A Survey of Faculty Members of Aligarh Muslim University.	Search behaviour and difficulties confronted by the faculty members while browsing Internet and opinion about available Infrastructure facilities in the university	Quantitative	Printed Questionnaire	E-mail and World Wide Web are the most used Internet services besides a good number of users facing difficulties while searching especially those accessing from respective departments. The majority of users are not satisfied with the infrastructure facilities of the university for the service
2	Sanjay Mishra & Santosh Panda (2007)	Delhi 150 full-time faculty members at the university headquarters	Development and Factor Analysis of an Instrument to measure Faculty Attitude towards e-Learning	the development of an empirically-based psychometrically-sound instrument to measure faculty attitude towards e-learning.	Quantitative	Standard scale	The 12-item attitude towards e-learning scale developed shows a high probability of differentiating between positive and negative attitudes towards e-learning. As attitudes naturally change over time, it is possible for planners and managers to change any negative pre-disposition among faculty through interventional information communication, training and experience.

Table 1: Continued							
Study No	Author(s) and date	Location of the study and Target Population	Name of the study	Study Objectives	Methodology	Tool Used	Study findings
3	Sunil Tyagi (2012)	India 147 Professor, Associate Professor, and Assistant Professors of different streams	Adoption of Web 2.0 technology in higher education: A case study of universities in the National Capital Region, India	explore the usage analysis of Web 2.0 technologies in learning environment by faculty members.	Quantitative	questionnaires	From the analysis it was revealed that teachers believe that online education is actually diversifying knowledge of the teachers and increasing their technical knowledge but it also has increases the working hours of the teachers as the online connection has reduced the communication gap between the students & teachers throughout the day. The study also concludes that young teachers are more actively participating in the online education to teach the students. This may be due to the reason of their familiarity with the technology. Overall study says that the teachers are taking online education positively and they are actively participating in shaping the future of students during COVID-19 lockdown

Table 1: continued

Study No	Author(s) and date	Location of the study and Target Population	Name of the study	Study Objectives	Methodology	Tool Used	Study findings
4	Jadhav V.R. Bagul T. D., Aswale S. R. (May 2020)	Maharashtra 100 graduate and postgraduate students	COVID-19 Era: Students' Role to Look at Problems in Education System during Lockdown Issues in Maharashtra, India	The impact of lockdown on education	Quantitative	Online survey method	Due to Lockdown issues, students can't concentrate on their studies. Some students also think that it is an opportunity to innovate on lockdown issues.
5	Dr Babita Dubey and Dr. Shivendra Singh (May and 2020)	Uttarakhand 161 teachers from Public and Private Universities	Perception of Teachers on Online Teaching in Higher Education During COVID-19 Lockdown	The perception of teachers and their experiences of teaching students online during the lockdown.	Quantitative	Questionnaires	Teachers believe that online education is actually diversifying knowledge of the teachers and increasing their technical knowledge but it also has increases the working hours of the teachers as the online connection has reduced the communication gap between the students & teachers throughout the day. Young teachers are more actively participating in the online education to teach the students. This may be due to the reason of their familiarity with the technology. Overall study says that the teachers are taking online education positively and they are actively participating in shaping the future of students during COVID-19 lockdown

Table 1: Continued							
Study No	Author(s) and date	Location of the study and Target Population	Name of the study	Study Objectives	Methodology	Tool Used	Study findings
6	Deepika Nambiar (June 2020)	Bangalore 70 teachers and 407 students from colleges and universities .	The impact of online learning during COVID-19: students' and teachers' perspective	teacher's and student's perception and experience related to online classes	Quantitative	Online survey method	The findings show that the following areas are important for teacher and student satisfaction with online classes, these areas are: quality and timely interaction between student and professor, technical support availability, structured online class modules, and modifications to accommodate conduction of practical classes
7	Aboobacker Mohammed Rafi, Pulikkottil Raphael Varghese, and Praveenlal Kuttichira (July 2020)	Kerala 364 undergraduate medical students	The Pedagogical Shift During COVID 19 Pandemic: Online Medical Education, Barriers and Perceptions in Central Kerala	the barriers and perceptions of undergraduate students by an online questionnaire after 2.5months of e-classes.	Quantitative	structural questionnaire link using 'Google form'	students are able to follow the online classes and have good learning experience on the Didactic part. An active involvement of faculty would facilitate identifying the barriers and resolving it. The medical educators could rise up to the challenge of continuing to teach even in times of crisis, though the effective use of e-learning platforms.

Table 1: Continued.....							
Study No	Author(s) and date	Location of the study and Target Population	Name of the study	Study Objectives	Methodology	Tool Used	Study findings
8	Abhinandan Kunal and Anupama Nayak (July 2020)	Dakshin Kannada and Udapi 68 teachers and 203 students	A study on perception of teachers and students toward online classes in Dakshina Kannada and Udupi District	Analyze the perception of teachers and students about online classes	Quantitative	Separate structured questionnaires for students and teachers	The study reveals that students are comfortable with online classes and are getting enough support from teachers but they do not believe that online classes will replace traditional classroom teaching. It also finds that teachers are facing difficulties in conducting online classes due to a lack of proper training and development for doing online classes. Technical issues are the major problem for the effectiveness of the online classes
9	R.Radha, K.Mahalakshmi, Dr.V.Sathish Kumar and Dr.AR.Saravana kumar (2020)	Tamilnadu, 175 students across the world	E-Learning during Lockdown of Covid-19 Pandemic: A Global Perspective	The student's attitude towards e-learning	Quantitative	Google forms	The findings of the study reflect the impact of E-learning, students' interest in using E-learning resources, and their performance. In conclusion, this study shows that E-learning has become quite popular among the students all over the world particularly, the lockdown period due to the COVID-19 pandemic.

Table 1: Continued....

Study No	Author(s) and date	Location of the study and Target Population	Name of the study	Study Objectives	Methodology	Tool Used	Study findings
10	Rakhi Gaur, Shiv Kumar Mudgal, Isha Thakur Dharni, Ravikant Sharma, Neha Suyal (2020)	Himachal Pradesh 394 Undergraduate Nursing students	Barriers encountered during online classes among undergraduate nursing students during COVID-19 pandemic in India	Unravel the barriers encountered during online classes among undergraduate nursing students during the covid-19 pandemic	Quantitative	Self structured questionnaire was used which was based on 5 point Likert scale	There were 209 (53%) female participants. Significant difference ($p=0.05$) was found among participants' gender and year of study, area of residence, father education, family income and whether they had ever attended online classes. Lack of control over the group was top perceived barrier with highest score. Majority of participants perceived barriers encountered during online classes. Mann Whitney U test showed the significant differences of participants' perceived barriers among male and female participants by their age, year of study, fathers' education and family income ($p<0.05$).
11	Kapasia Nanigopal, Paul Pintu, Roy Avijit, Saha Jay Zaveri Ankita, Mallick Rahul, Barman Bikash, Das Prabir,	West Bengal 232 students from colleges and universities	Impact of lockdown on learning status of undergraduate and postgraduate students during COVID-19 pandemic in West Bengal, India	assess the impact of lockdown amidst COVID-19 on undergraduate and postgraduate learners of various colleges and universities of West Bengal.	Quantitative	structural questionnaire link using 'Google form'	Most of the learners were used android mobile for attending e-learning. Students have been facing various problems related to depression anxiety, poor internet connectivity, and unfavourable study environment at home. Students from remote areas and marginalized sections mainly face enormous challenges for the study during this pandemic.

Table 1: The summary of 14 papers analysed and main findings

Study No	Author(s) and date	Location of the study and Target Population	Name of the study	Study Objectives	Methodology	Tool Used	Study findings
12	Gautam Kumar, Gulbir Singh, Vivek Bhatnagar, Rajeev Gupta, Sushil Kumar Upadhyay (Oct 2020)	156 students, 54 teachers belonging to various institutions/Universities across India	Outcome of Online Teaching-Learning over Traditional Education during Covid-19 Pandemic	Assess the impact, issues, and tools of online teaching-learning throughout the various higher educational bodies (colleges/Universities) across India	Quantitative	A structured and unstructured preliminary questionnaire	Majority of the respondents are ready to opt for online classes to manage the curriculum during this pandemic. Majority of the students preferred to use smart phone for online learning. Using content analysis, we found that students prefer recorded classes with quiz at the end of each class to improve the effectiveness of learning. The students opined that flexibility and convenience of online classes makes it attractive option, whereas broadband connectivity issues in rural areas makes it a challenge for students to make use of online learning initiatives. However, in agricultural education system where many courses are practical oriented, shifting completely to online mode may not be possible and need to device a hybrid mode, the insights from this article can be helpful in designing the curriculum for the new normal.

Table 1: Continued

Study No	Author(s) and date	Location of the study and Target Population	Name of the study	Study Objectives	Methodology	Tool Used	Study findings
13	T. Muthuprasad, S. Aiswarya, K .S. Aditya and Girish K. Jha (2020)	Delhi agricultural graduates from different universities of National Agricultural Research System (NARS).	Students' perception and preference for online education in India during COVID -19 pandemic	Understanding Agricultural Student's perception and preference towards the online learning	Quantitative	A structured questionnaire was designed in Google Forms	Majority of the respondents are ready to opt for online classes to manage the curriculum during this pandemic. Majority of the students preferred to use smart phone for online learning. The students opined that flexibility and convenience of online classes makes it attractive option, whereas broadband connectivity issues in rural areas makes it a challenge for students to make use of online learning initiatives. However, in agricultural education system where many courses are practical oriented, shifting completely to online mode may not be possible and need to device a hybrid mode, the insights from this article can be helpful in designing the curriculum for the new normal.
14	Bordoloi Ritimoni, Prasenjit Das and Kandarpa Das (February 2021)	Guwahati, India 120 Students and Teachers	Perception towards online/blended learning at the time of Covid-19 pandemic: an academic analytics in the Indian context	Understand the perceptions of the teachers and learners regarding the use of online/blended learning modes in teaching transactions	Quantitative	A structured questionnaire was designed in Google Forms	The extensive use of open educational resources, massive open online courses, social media and meeting apps during the Covid-19 lockdown, has opened up the minds of the knowledge-hungry people, further enabling them to receive the necessary educational inputs, training and skills even during the current pandemic situation. This is going to have a big impact in the ways of educational transactions in the days to come.

Results :

Meta-analysis has identified three dimensions in studies, i.e. the teachers and students perspective towards online education, barriers in online education and impact of COVID-19 on higher education. Seven papers examined the perspectives of teachers and students towards online education from various disciplines, and three papers revealed barriers, challenges in online teaching learning process, two papers discussed on impact of lockdown on education and in online e outcomes of divorce. Two papers were on use of recourses to meet the needs of current era.

Geographical Locations of the studies:

The studies were conducted in different states of India. Mostly focused on Universities in India. By using Google forms and online survey method three studies were conducted across the India and one across the world. Eleven studies were state representative studies conducted in Delhi, Uttar Pradesh, Maharashtra, Uttarakhand, Kerala, Tamilnadu, Karnataka, Himachal Pradesh, West Bengal and Assam. Seven studies were conducted in following cities where most Universities are located like Delhi, Guwahati, Dakshin Kannada, Udupi, Bangalore, Aligarh.

Educational level of Research Participants:

All participants are associated with higher education. There were two categories one was students and other one teachers. Selection of teachers in the studies were from head quarter of Universities, Indian Universities at National Capital Region(NCR),Public and Private Universities. Teachers participated in research were from different academic positions such as Assistant Professors, Associate Professors, Professors. In five studies only teachers from Agriculture, Arts, Education, Engineering, Management and Science etc streams were participated.

Students were selected from Universities of National Agricultural Research Systems(NARS),graduate and post graduate students, undergraduate medical students, In one study students participated across the world.

In four studies perspectives of both students and teachers perspectives explored at a time so both of them were participants.

Socio-demographic characteristics of Teachers:

Gender, designation, age :

More female teachers were participated in study(Nambiar Deepika,2020;Kulal and Nayak,2020)Majority of male teachers were participated in study(Dubey and Singh,2020). More number of Assistant professor participated in study (Tyagi S.2012;Naushad Ali and Javeed,2006;Dubey and Singh,2020)More male teachers were between the age group of 24-35yrs and female were above 50 years(NambiarDeepika, 2020).Younger teachers with less than 5 years experience were more and conducting first time online class due toCOVID-19(Kulal and Nayak 2020;Dubey and Singh,2020)

Perception:

Teachers attended online classes without training or less training, and they were satisfied with their performance(Kulal and Nayak, 2020).Maximum teachers reported that they preferred classroom teaching method more than online teaching mode(Kulal and Nayak,2020). More number of teachers were using internet services for the purpose of e-mail, research and then teaching for one or two hours. More teachers consulted only one e-journal. Fourteen years back more number of teachers had difficulties in searching information on net(Naushad Ali and Javeed,2006).

Teachers felt that even though online classes were convenient, could be taken from the comfort of their homes, saving travel time, it did not seem to be effective when compared to classroom method. Teachers did agree to the fact that this new opportunity of conducting classes through online channel have increased their confidence and helped them to explore and use innovative teaching methods. Lack of work satisfaction was also reported by teachers while taking online classes. Some of them even felt that their lack of computer skill came in the way of using the online teaching platform effectively. Lack of student interest and involvement was reported by a majority of teachers. Some positive feedbacks reveal that teachers felt that it is flexible and convenient, could be easily accessed, can be scheduled as per their convenience and made evaluation and grading work easier. It helped them to upgrade their skills as a teacher; they have become technically more skilled, have helped them to learn innovative teaching methods(Nambiar Deepika ,2020;Dubey and Singh,2020)

Experience of using of device:

Mobile app has been most effective during Covid-19, or it will remain to be effective during any crisis situation, as it is cheaper or affordable and accessible to all followed by digital library, website, learner's portal, LMS, etc.(Ritimon B.et.al. 2021).All teachers were agree on use of web 2.0 tools broadened faculty' perspective, and

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facilitated obtaining students' feedback and following students' interest trends, Drew on collective knowledge to better serve, improved teachers' interdepartmental communication, facilitated instant problem solving with the benefit, facilitated instant problem solving with the benefit. Adoption of web 2.0 were not at advanced stage, it is still marginal. Face book and twitter were more used of sharing sites for Collaboration/Corporation. Wikis were preferred more as it support individualized learning, allowing for more socially defined search structures and promote collaboration through group editing and peer review. More teachers were used inflienet blog followed by study freak. Maximum teachers were using slide show presentation by using project or for knowledge distribution(Tyagi S.2012)

Barriers faced by teachers:

Teacher- student disconnect, lack of interaction, inability to engage the group, technical issues were found to be the main issues. Also reported that during online classes the main issue they faced were that students made a lot of excuses about not being able to attend classes, for e.g., network issue, disconnectivity, poor audio and video quality, etc. and it is difficult for them to know if they are giving genuine reasons or just escaping from attending the classes. With classes and assignments using online channels, education technology apps are gaining popularity amid COVID-19 pandemic. Another major issue reported was the problem of taking practical subjects online. As per the teacher's theoretical subjects were easier to take but when it comes to practical subjects like design, accounts, math, and others, they found it difficult to take the class(Nambiar Deepika ,2020;Kulal and Nayak,2020).Ensuring effective training to medical students in the present scenario is one such challenge for medical teachers. The conventional teaching methods face hindrances due to fall in routine clinical load, inability for examination in closeness due to social distancing and students living away from hospitals due to quarantine or lock down. Speaking to patients with confidence, discussing care plan with colleagues or even presenting academic work are necessary skills to be learned by a medical student. (Rafi A. et.al.2020)Teachers felt that online class will increase unemployment or reduce the demand of teachers, failed to fill the emotional attachment between teacher and student, without providing proper infrastructure facility it is challenging to conduct online class(Kulal and Nayak,2020)

Socio-demographic characteristics of students:

Gender, Age, Social Category :

More number of students were female than male (Gaur R.et.al 2020; Nambiar Deepika, 2020; T. Muthuprasad et.al.2021;Kulal and Nayak 2020).Maximum students were between the age group of 20-22years and undergraduate (Gaur R.et.al 2020; Nambiar Deepika, 2020; T. Muthuprasad et.al.2021; Rafi A. et.al.2020;Nanigopal,K. 2020) Majority students were from general category and Hindu religion, followed by schedule caste and other backward class and monthly income of family was below Rs.20000/-

Rural –Urban background:

Approximately two-third 263 (66.8%) of participants belonged to rural background (Gaur R.et.al 2020; T. Muthuprasad et.al.2021;Nanigopal,K. 2020)

Experience of Online classes:

Maximum students had experience of having online classes (Gaur R.et.al 2020;Rafi A.et al.2020).Students had willingness to learn from e-resources(R.Radha et.al.2020).Majority students never used ICT based education before the COVID-19 pandemic that revealed the lack of motivation, training, and engagement of students and teachers. Majority of the students were used mobile data or mobile phones for e-learning(R. Radha et.al.2020;Rafi A.et.al.2020;Nanigopal,K. 2020).Zoom, what's app and Google meet followed by Google classroom(Kulal and Nayak 2020; R. Radha et.al.2020;Jadhav V.et.al.2020;Nanigopal,K. 2020)applications were more used by students. Students chose Google as online resource and portal suits to fulfil their requirement for e-learning and teaching, however never used *e-pathshala* study material(Kumar Gautam et.al. 2020;Nambiar Deepika ,2020;RitimonB.et.al. 2021;Rafi A.et.al.2020;Nanigopal,K. 2020).

Students Perception:

Students reported that they preferred classroom teaching method more than online teaching mode. (Nambiar Deepika, 2020).However students from southern area of India and out of country felt highly preferred e-learning because they are learning more advanced technical courses only through online. Since soft skills are highly essential for present job market students are keen to learn from e-learning(R. Radha et.al.2020). Positive aspect of online classes majority found it to be time saving, as it could be done from the comfort of the home which save time to travel and commute, don't have to rush to reach college. Other positive things reported were: faster completion of syllabus, recording of classes helped in referring to it later. Students' preferred well structured content with recorded videos uploaded in university websites, could be watched again and again until the concept is clear and preferred 30-45 minutes class duration(Rafi A.2020).It's hard for students to stick to a study

schedule of the online course. (Kulal and Nayak,2020)They also indicated the need for interactive sessions with quizzes and assignments at the end of each class to optimise the learning experience. Classes can be attended anywhere, anytime thus, giving flexibility. Lesser disturbance from classmates, less anxiety in asking doubts and queries were also added among the others. (Nambiar Deepika,2020;T. Muthuprasad et.al.2021).However e-learning allows acquiring new knowledge and enhancing their skill set. (Kumar Gautam et.al. 2020;R.Radha et.al.2020).Maximum students reported that they were satisfied with web based mock test for their assessment because it was more convenient and aptitude based(R.Radha et.al.2020).They received enough support encouragement for discussion and resources from their teachers. It was observed by students that teacher sets guidelines for effective communication and interaction in an online class(Kulal and Nayak,2020)

Barriers faced by students:

More number of students was faced barriers in online classes. Barriers towards online classes between male and female students were analyzed by Mann Whitney U test; analysis showed the significant differences of participants perceived barriers among male and female participants by their age, year of study, fathers' education and family income. Lack of control over the group was one of the barrier.(Gaur R.et.al 2020).Face-to-face interaction during class time in the traditional system increases the confidence level of a student's instead of online learning. It also reduces the practical exposure in real life.Things such as technical issues, lack of structure, disturbance in the flow of classes, problems in clarifying doubts, lack of interest and motivations to attend the classes were some prominent factors reducing the effectiveness of online classes(Kumar Gautam et.al. 2020; Nambiar Deepika, 2020; T. Muthuprasad et.al.2021) Students had burden to manage both college work and house work at same time (Nambiar Deepika ,2020).Students were more supportive of conventional teaching for the practical session(R.Radha et.al.2020)

Some of the other issues reported were financial constraints. Students reported that the online classes increased their expense by recharging the data frequently, due to which they felt burdened, especially for students who come from financially fewer stable homes. Next concern was that online facility and tools were not accessible for students coming from economically disadvantaged background which again adds on to the burden of buying a smart phone which is financially burdening for some.(Nambiar Deepika ,2020;Nanigopal,K. 2020).Basic hurdle in adopting and undertaking the courses from SWAYAM and other MOOC platforms reported by students were course contents are not at par with their syllabi,it is difficult for credit transfer,difficult to enrol and not learner-centric(Ritimon B.et.al. 2021).

Weak internet access, lack of ICT skills(Gaur R.et.al 2020; Kumar Gautam et.al. 2020;Rafi A.2020;Ritimon B.et.al. 2021;Nanigopal,K. 2020).However students from southern India and out of country experienced no technical issue in e-learning.The lack of digital resources (computer/PC/Laptop) and their usage in rural/remote areas in adopting ICT based education system. Students had concern about data privacy and security as a big challenge in adopting ICT-based learning were recorded (Kumar Gautam et.al. 2020)

Online classes usually lead to more physical problems like fatigue, eye pain; headache and issue related to student's concentration during class(Kulal and Nayak,2020),distraction at home was more, no structured and supportive learning environment.Students felt stressed and strained both mentally and physically. The constant pressure of completion of assignments was reported by students that induced a lot of stress in them. They felt that no learning or transfer of knowledge was taking place(Gaur R.et.al 2020; Kumar Gautam et.al. 2020;Nambiar Deepika,2020;Nanigopal,K. 2020)More and more students feel that their studies, their minds are full of fears about Corona virus, all of this has distracted them, the different daily news is affecting their mental state a lot, so they have to focus on their studies. can't concentrate(Jadhav V.et.al.2020)

Impact :

Lockdown has a definite effect on education. Students think that the expenditure on education will definitely increase during and after Lockdown.(Jadhav V.et.al.2020) Students had positive impact on their studies due to online class, online classes have increased their technological literacy and gain more knowledge(Kulal and Nayak,2020)

Since the scale will help distance-teaching institutions to identify positive and negative faculty attitudes towards e-learning, policy makers and planners will be in a better position to manage change and implement an organization-wide e-learning strategy. As attitudes naturally change over time, it is possible for planners and managers to change any negative pre-disposition among faculty through interventional information communication, training and experience. it is hoped the present instrument developed will encourage researchers to use it and test it out in conjunction with other psychological variables to develop a better understanding of successful and unsuccessful implementations of e-learning(Mishra and Panda 2007).

No significant difference between age and perception of teachers; and designation and perception.

Conclusion :

Maximum studies are focused on quantitative approach. Due to availability of technical sources proper method of sampling was not used thus sample selection was very indefinite and it affects on findings too.(JadhavV.et.al,2020;Dubey and Singh 2020;Rafi.A.et.al.2020;Radha R.2020,Nanigopal,K. 2020;Ritimoni B.2020; Nambiar D.2020).

Due to use of Google forms, participation of respondents in study was not proportionate.Thus variation in socio demographic characteristics was found. Studies shows sudden change in use of technology in academics due to Covid Pandemic however very controversial results were found in studies conducted fourteen years back. Students and teachers had both positive and negative perceptions about online education and barriers were also similar in all studies. (Gaur R.et.al 2020; Kumar Gautam et.al. 2020; Rafi A.2020;Ritimoni B.et.al. 2021).

Training about all online resources need to be given to all academic staff to make it more familiar and accessible to them. In the era of new edge of education use of technology and smart learning is essential.

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