Effectiveness of Online Teaching and E-learning in School Education-Possibilities and Challenges
(A case study in reference to Online Teaching during Pandemic 2020)

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Abstract

Educational institutions in India are currently based on traditional methods of learning i.e. face-to-face lectures in a classroom. Although many academic units have started blended learning, but still a lot of them are stuck with old procedures. The sudden outbreak of pandemic 2020 challenged the education system across the world and forced educators to shift to an online mode of teaching overnight. Many academic institutions that were earlier reluctant to change their traditional pedagogical approach had no option but to shift entirely towards online teaching–learning. It changes pandemic as an opportunity for betterment of teaching learning in Indian perspective. It provides a platform for successful implementation, and now it's time to analyse its impact. In this concern the present study investigates Effectiveness of online teaching in school education- Possibilities and Challenges. It analyses the effectiveness of using e-learning in education andincludes the importance of online learning and Strengths, Weaknesses, Opportunities, & Challenges of e-learning modes in the time of crisis.This study reviews literature and gives a scholarly background to the study and about the concept of e-learning, particularly its usage in teaching and learning in educational institutions. It unveils some views that people and institutions have shared on the adoption and integration of e-learning technologies in education through surveys and other observations. This article also put some light on the growth of EdTech Start-ups and includes suggestions for academic institutions to how to deal with challenges associated with online learning.It explores whether school students could benefit from online teaching and examines the potential challenges and drawbacks of online teaching. This study shows that e-learning is a major and primary issue, so it can be an alternative or replacement for traditional learning methods. Also this study examines the issues surrounding the implementation and impact of e-learning to achieve information society.

Keywords: Online teaching, Blended learning, Collective learning, E-learning.

Introduction

Education is the most powerful weapon which you can use to change the world. It is the process by which society deliberately transmit the accumulated knowledge, skills, customs and values, from one generation to another. It is an experience that has a formative effect on the way, one thinks, feels, or act. Rather than looking at education simply as a means of achieving social upliftment, the society must view education also as an engine of advancement in an information era propelled by its wheels of knowledge and research leading to development. The purpose of education is not just making a student literate but adds rationale thinking, morality, knowledge and self-sufficiency. Education must inculcate self-discipline and commitment to achieve, in the minds of student. We have to convert education into a sport and learning process has to generate interest in the students.

Education should become a fun and thrill to them rather than burden and boredom. And for that the teaching methodology and teaching technology should be improved.In schooling the most important part is, teaching learning process, and the success of this process depends upon the level of understanding and implementation. In today's era, information and knowledge stand out as very important and critical input for growth and survival.Basically teaching must include two major components sending and receiving information. Ultimately, a teacher tries his best to impart knowledge as the way he understood it. So, any communication methods that serve this purpose without destroying the objective could be considered as innovative methods of teaching. The use of innovative methods in educational institutions has the potential not only to improve education, but also to empower people, strengthen governance and galvanize the effort to achieve the human development goal for the country.

Online teaching typically refers to courses that are delivered completely online, meaning there are no physical or on-campus class sessions. Blended learning is an approach to education that combines online educational materials and opportunities for interaction online with traditional place-based classroom methods, Collective learning provides the people to communicate with each other and their teachers. E-learning is A method of teaching and learning that fully or partially signifies the educational model used, based on the use of electronic media and devices as tools for enhancing availability of training, communication and interaction that helps in accepting novel ways of comprehending and establishing learning, E-learning is the use of network technologies to create, faster deliver and facilitate learning, anytime and anywhere for empowering the individual learner so that the teacher/ trainer/tutor is no longer the gatekeeper of knowledge, while the role of teachers is likely viewed as facilitators of knowledge process. E-learning can be classified as three categories including personal learning, collective learning and virtual classroom. E-learning has some benefits i.e. it facilitate the

process of learning and allow learners to determine the speed of their learning and developing information resources. It can enhance active learning and makes the interaction between learners and teachers possible in a flexible and constantly changing environment The flexibility and elimination of unnecessary E-learning potential to improve quality of learning: In The current era, some concepts like "education for all" and "lifelong learning" has been accepted as a principle which negates traditional viewpoint to the short-term and transient training. So in India also various efforts are going on to develop online teaching. For the success of online teaching open resources are necessary so VariousEdTech Start-ups are functioning and developing in this era.EdTech start-ups likeByju's, Adda247, Alolearning, AptusLearn, Asmakam, Board Infinity, ClassPlus, CyberVie, Egnify, Embibe, ExtraaEdge, iStar, Jungroo Learning, GlobalGyan, Lido Learning, Pesto, Vedantu, Edubrisk, ZOOM Classroom, ZOOM Business, Toppr, Unacademy, Coursera, Kahoot, Seesaw, Khan Academy, e-pathshala, GuruQ, and the list is long. SWAYAM portal is an interesting educational program that is initiated by the government of India to achieve three important objectives of our educational policy, that is, access, equity, and quality. The through Google classroom, Google meet and Google form Google is provide vider platform for initial level of teaching

During pandemic 2020 India is practicing online teaching at all levels so it is necessary to analyse the impact of it. In this concern the present study analyses the effectiveness of e-learning in education including the importance of online learning and Strengths, Weaknesses, Opportunities, & Challenges analysis of e-learning modes in the time of crisis.

1- **Literature review-**

Today's world has entered a new era of his life which is known as information society. Despite the enormous growth of E-learning in education and its perceived benefits, the efficiency of such tools will not be fully utilized if the users inclined to not accept and use the system. Therefore, the successful implementation of E-learning tools depends on whether or not the students are willing to adopt and accept the technology. Thus, it has become imperative for practitioners and policy makers to understand the factors affecting the user acceptance of web-based learning systems in order to enhance the students' learning experience. However, recent studies have shown that E-learning implementation is not simply a technological solution, but also a process of many different factors such as social factors and individual factors, organizational such as facilitating conditions, in addition to behavioural and cultural factors. Such major factors play an important role in how an information technology is developed and used. Fischer et al. (2015) studied how proceedings of scientific conferences can be used for trend studies in the field of e-learning. And found the development potential of learning management, mobile learning, virtual worlds, e-portfolio, social media and Massive Open Online Courses are crucial for E-learning in

German higher education. Moravec et al. (2015) showed how E-learning tools impact students' achievement. The researchers found that the E-learning tools have affected the students' results. Mothibi (2015) examined the relationship between E-learning and students' academic achievement in higher education. The researcher found that ICT had a statistically significant positive influence of E-learning on overall academic achievements. Suri and Sharma (2014) examined the relationship between disciplines of students and their responses and attitudes towards e-learning. The researchers found a significant relationship between disciplines of student and the factors of scale on computer and E-learning attitude which set emphasis on the role of department in learning and satisfaction level of students. Ceobanu and Boncu (2014) investigated in a theoretical manner the challenges associated with the use of mobile technology in adult education.

Rapid developments in technology have made distance education easy (McBrien et al., 2009). "Most of the terms (online learning, open learning, web-based learning, computer-mediated learning, blended learning, m-learning, for ex.) have in common the ability to use a computer connected to a network, that offers the possibility to learn from anywhere, anytime, in any rhythm, with any means" (Cojocariu et al., 2014).Online learning is defined as "learning experiences in synchronous or asynchronous environments using different devices (e.g., mobile phones, laptops, etc.) with internet access. In these environments, students can be anywhere (independent) to learn and interact with instructors and other students" (Singh & Thurman, 2019). Problems Associated with Online Teaching and Learning, There are n number of technologies available for online education but sometimes they create a lot of difficulties. These difficulties and problems associated with modern technology range from downloading errors, issues with installation, login problems, problems with audio and video, and so on. Sometimes student finds online teaching to be boring and unengaging. Students feel that lack of community, technical problems, and difficulties in understanding instructional goals are the major barriers for online learning (Song et al., 2004). In a study, students were found to be not sufficiently prepared for balancing their work, family, and social lives with their study lives in an online learning environment. Students were also found to be poorly prepared for several e-learning competencies and academic-type competencies. Also, there is a low-level preparedness among the students concerning the usage of Learning Management Systems (Parkes et al., 2014).

Online learning has the potential to create educational opportunities for individuals who may have faced unsurpassable barriers prior to the expansion of online educational programs. Online courses have been found to be conducive to students who favour self-regulated learning (You & Kang, 2014). In a study conducted by Kirtman, a student responded to online coursework by stating, "It is more self-guided so I can spend more time on the concepts that I need help with and less on concepts that I can

pick up quickly" (Kirtman, 2009, p. 110). In order to create democratic online teaching environments, accessibility needs to be at the forefront of course creation. Through CWOC analysis, Dhawan, Shivangi(2020), stated that Online Learning is as a Panaceaduring covid 19 in India. Accessibility has a profound effect on student engagement and academic performance, therefore greatly impacting the success of the learner. The growing number of online courses and programs creates a need for more research in this particular area. More research would open doors to making students more aware of the benefits and potential drawbacks of online coursework as well as characteristics of a successful online student. Instructors and course designers should understand effective course development and design so students have a heightened chance for success.

3-Need and objectives of the study-During pandemic 2020 India started E- teaching practices at all levels. It reflects various new affects and impacts on students. So it becomes necessary to analyse the impact of these new practices in education in present Indian scenario. In this concern the present study seeks to focus on the Effectiveness of E- learning in present scenario in India. It is a Case study of impact of e learning in school education in India. The purpose of this study is to determine how online teaching will affect the learning outcomes of students. And more specifically how can the use the online teaching to promote the secondary education in India.

4**-- Research Hypotheses-**The study is based on following hypothesis-

- There is significant relationship between online teaching and student'ssocio-economic and technological background.
- There is significant relationship between online teaching and students learning outcomes
- Teaching throughonline techniqueshave various pros and cons in present Indian scenario.

5-- Methodology –The present study is descriptive and tries to understand the importance of online learning in the period of a crisis and pandemics. The problems associated with online learning and possible solutions were also identified based on previous studies. The analysis is to understand various strengths, weaknesses, opportunities, and challenges associated with online mode of learning during this critical situation. The research tool used for analyzing the data which amassed from different sources for this study is a content analysis and the research method is descriptive research. We have taken into consideration the qualitative aspects of the research study. This study is based on primary and secondary data. It comprises the responses of randomly selected250 respondents i.e. students, teachers and parentsof KendriyaVidyalaya, state schools and Private schools of Prayagraj,UP, in session 2020 in which 190 respondents were students out of which 90 boys and 100 were girls. 30 respondents were

teachers out of which 12 were male and 18 were females. 30 respondents were parents out of which 8 were male and 22 were females. After reviewing the literature related to studyfrom journals, reports, search engines, company websites and scholarly articles, research papers, and other academic publications. The questionnaire was framed containing various questions related to socioeconomic profile and learning outcomes and views about online teaching of students. The study contains three parts – first part evaluates the availability of resources awareness and aptitude towards online teaching among respondents. Second part evaluates the applicability and output of online teaching. In third part evaluates the advantages and disadvantages, problems and challenges of e-teaching through responses of respondents.

6- Analysis – Education is the backbone of human society so from starting of civilization this process is going on. It is not only practiced in human beings but also in all the creatures of the universe, to pass the learned knowledge to further generation for some betterment. As the level of knowledge is becoming advance the method of teaching learning is changing. In traditional educational context, the teacher acts as sender or the source, the educational material is the information or message, and the student is the receiver of the information. In terms of the delivery medium, the educator can deliver the message via the "chalk-and- talk" method and overhead projector (OHP) transparencies. The teacher delivers the lecture content and the students listen to the lecture. Thus, the learning mode tends to be passive and the learners play little part in their learning process. Skinner (1938) started behavioural learning perspective and after development of multimedia learning process, multimedia tools were practiced in teaching learning process. By incorporating digital media elements into the project, the students are able to learn better since they use multiple sensory modalities, which would make them more motivated to pay more attention to the information presented and retain the information better. Satellite and internet provides broader platform in education sector also. And after pandemic 2020 Indian education system is practicing online teaching technologies. But in current scenario it is matter of analysis-

Part 1- Availability of resources awareness and aptitude towards online teaching among respondents-theavailability of resources awareness and aptitude towards online teaching plays important role in success of online teaching in developing countries like India. The socio economic background, availability of resources, awareness about online tools and attitude towards online teaching plays makeable role in success of online teaching in this concern the study analyses-

6.1- Socio economic background of respondents- In the study, the socio economic profile of randomly selected 250 respondents of various families is evaluated on the base of consolidated index. The index is prepared by adding the value points of various socio-economic aspects as-social background, educational background, locality of residence, economic background, and family environment.After

adding the point secured by the family the socio economic level of family is calculated and categorized into four groups- A, B, and C, According to table 1, 37.9 % students were from very good socio-economic profile, 38.4 % students were from good socio-economic profile and can afford online tools, while 23.7% respondents were from low socio-economic profile who are unaverred and also not afford online tools easily.

Table 1- Sample size and sample profile

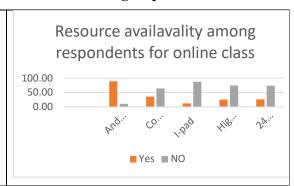| S N		Respondents			Socio-Economic Profile in %			
		Male	Female	Total	A	B	C	total
1	Student	90	100	190	40.0	36.0	24.0	100
2	Teacher	12	18	30	30.0	45.0	25.0	100
3	Parents	8	22	30	40.0	33.3	26.7	100
4	Total	110	140	190	37.9	38.4	23.7	100

Source- Online survey 2020

6.1- Availabilityof E-resources among respondents –The availability of e resources is an important issue for online teaching in India.It is not only due to economic status but also unaverred and backwardness of society, lack of education and training. Many parents are in fair of misuse of internet. The following Table2 shows that 89.4 % respondents werehavingAndroid mobiles, 35.8%respondents were havingComputer/ Laptops.12.1 % were having I-pads while only25.2% respondents were having high speed internet facility (5 mbps and above)and 26.3% were having 24 hour electric facility. This shows that the availability **of resources necessary for online learning is not up to the mark it is more pathetic in rural areas and needs more concentration over resource development for online learning in India.**

Table 2- Availabilityof E-resources among respondents

S N	Resourceavailability for online class	Yes	NO
1	Android mobile	89.47	10.53
	Computer/ Laptop	35.79	64.21
2	I-pad	12.11	87.89

Resource availavality among respondents for online class

3	High speed internet connection >5 MBPS	25.26	74.74	
4	24 hours electric facility	26.32	73.68	

Source- Online survey 2020

6.2- Awareness of E teaching and E learning among respondents-The awareness level of online teaching and E-learning aspects plays important role in success of online teaching.In the study to understand the aspect responses on 10 selected issues is taken. In following Table 3 shows that 82.8% respondents were havingwhat's app or twitter account, 63.2% were Used teaching software for preparation of exams, 52.4%Attended any online quiz or discussion,41.6% were having knowledge about effect ofelectromagnetic radiation through E-tools, 44.4 % were Practice Blogging and vlogging, E-portfolios. 30.8 % were Practices Collaborative writing, Content production and Discussion forums.60 % were Practices Games/gamification.48 % were Practices Live video chats conferencing.32.4 % were Practices Online Mapping, drawing and drafting,39.2% were Practicing Multimedia presentations. This shows that the availability of resources necessary for online learning is not up to the mark and unawareness and misconceptions are also barriers, so it needs more attention over **resource development and training of parents, teachers and students as well,for successful online learning in India.**

Table 3- Awareness of E teaching and E learning among respondents

SN	Aspects of awareness	Students		Teachers		Parents		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1	Have what's app or twitter account	63.7	36.3	93.3	6.7	60.0	40.0	82.8	17.2
2	Used teaching software for preparation of exams	86.3	13.7	86.7	13.3	86.7	13.3	63.2	36.8
3	Attended any online quiz or discussion	83.2	16.8	93.3	6.7	80.0	20.0	52.4	47.6
4	Knows about electromagnetic radiation through e tools	76.3	23.7	70.0	30.0	76.7	23.3	41.6	58.4

5	Practice Blogging and vlogging , E-portfolios	76.8	23.2	73.3	26.7	63.3	36.7	44.4	55.6
6	Practices Collaborative writing Content production and Discussion forums	71.6	28.4	90.0	10.0	60.0	40.0	30.8	69.2
7	Games/gamification	64.2	35.8	76.7	23.3	53.3	46.7	60	40
8	Live video chats conferencing	71.1	28.9	76.7	23.3	76.7	23.3	48	52
9	Online Mapping, drawing and drafting	76.3	23.7	93.3	6.7	73.3	26.7	32.4	67.6
10	Multimedia presentations	79.5	20.5	80.0	20.0	66.7	33.3	39.2	60.8

Source- Online Survey 2020

6.3 Attitudes towards of E- teaching- For success of online teaching it is necessary that everyone should accept the value of facilitated learning as equal to the traditional model. If a teaching learning fraternity feels the only way that true learning can take place is through the traditional means of educating in a classroom, is not fit for the online paradigm. Everyone must be a proponent of facilitative learning, and have confidence in the system in order to make it work. The online facilitator should be open, concerned, flexible, and sincere and be able to compensate for the lack of physical presence in the virtual classroom by creating a supportive environment where all students feel comfortable participating and especially where students know that their instructor is accessible. Means attitude ofteaching learning fraternity plays important role in success of online teaching. In this concern 10 aspects are selected and the views of respondents is taken. Table 4 shows that 66.8 % respondents says that High-quality learning cannot takes place without interacting face-to-face, 86.4% believes that Lecturing is the best method for delivering education in your field,84 % believes thatDiscussion is an effective teaching strategy,75.6 % believes that E teaching helps students to learn from collaborative learning 74.8% are dedicated to participate in the online teaching process. 72.4% believes that they are self-disciplined, independent worker64.4 % are flexible in dealing with online teaching and think that Learning is good online environment. 72.4 % believes that high quality learning can takes place by online teaching methods. 78%believe that sense of community and activity is most important in studyand 78% arewilling to invest time in online teaching and technical skills in the future. This shows that maximum peoples are not well established idea regarding it. But some are due to lack of interest, knowledge lacking behind. The table also reflects that student and parents are not having well attitude for E learning while 100% teachers are

also not having established attitude towards online teaching**. So for future the online teaching environment and quality content development is necessary.**

Table 4- Attitudes towards of E- teaching

SN	Aspects of awareness	Students		Teachers		Parents		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1	High-quality learning cannot take place without interacting face-to-face	63.7	36.3	93.3	6.7	60.0	40.0	66.8	33.2
2	Lecturing is the best method for delivering education in your field	86.3	13.7	86.7	13.3	86.7	13.3	86.4	13.6
3	Discussion is an effective teaching strategy	83.2	16.8	93.3	6.7	80.0	20.0	84.0	16.0
4	E teaching help students to learn from collaborative learning	76.3	23.7	70.0	30.0	76.7	23.3	75.6	24.4
5	You dedicate to participate in the online teaching process?	76.8	23.2	73.3	26.7	63.3	36.7	74.8	25.2
6	Are you a self-disciplined, independent worker?	71.6	28.4	90.0	10.0	60.0	40.0	72.4	27.6
7	Are you flexible in dealing with online teaching and think that Learning is good online environment	64.2	35.8	76.7	23.3	53.3	46.7	64.4	35.6
8	Believe that high quality learning can takes place by online teaching methods	71.1	28.9	76.7	23.3	76.7	23.3	72.4	27.6
9	believe that sense of community and activity is most important in study	76.3	23.7	93.3	6.7	73.3	26.7	78.0	22.0
10	willing to invest time in online teaching and technical skills in the future	79.5	20.5	80.0	20.0	66.7	33.3	78.0	22.0

Source- Online Survey 2020

Part 2- Applicability and output of online teaching- In the last few years, e-learning has started gaining popularity in India. However, the challenges posed by the Corona Virus pandemic introduced

everyone to a new world of online learning and remote teaching. Instructors indulged them in remote teaching via few flatforms such as Google Hangouts, Skype, Adobe Connect, Microsoft teams, and few more, though ZOOM emerged as a clear winner. It is studentcentred and offers a great deal of flexibility in terms of time and location. The e-learning methods enable us to customize our procedures and processes based on the needs of the learners. There are plenty of online tools available which is important for an effective and efficient learning environment. Educators can use a combo of audio, videos, and text to reach out to their students in this time of crisis to maintain a human touch to their lectures. This can help in creating a collaborative and interactive learning environment where students can give their immediate feedback, ask queries, and learn interestingly. Technology provides innovative and resilient solutions at times of crisis to combat disruption and helps people to communicate and even work virtually without the need of face-to-face interaction. This leads to many system changes in organizations as they adopt new technology for interacting and working. In study to check the applicability of online teaching, 6 aspects are selected and the views of respondents is taken. The table 6 reflects that 85.2% respondent believes that online teaching increases understanding,78% respondent believes thatit increases subject competency,74.4% respondent believesthatitincreases over all knowledge, 58.8% respondent believes thatit increases level of marks, 54% respondent believesthatitincreases Pass percentage, 56% respondent believes thatit increases the % of high achievers. This shows that in term of holistic understanding online teaching is much applicable but in term of exam result it is not. The teacher community not think that online teaching is not much applicable in present scenario. **So in combination of offline teaching, the online teaching should be practiced, then its result will be very applicable**.

Table 5- Applicability and output of online teaching

SN	Aspects of awareness	Students		Teachers		Parents		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1	Increases understanding	88.4	11.6	70.0	30.0	80.0	20.0	85.2	14.8
2	Increases subject competency	83.7	16.3	46.7	53.3	73.3	26.7	78	22
3	Increases over all knowledge	76.8	23.2	63.3	36.7	70.0	30.0	74.4	25.6
4	Increases level of marks	55.3	44.7	53.3	46.7	86.7	13.3	58.8	41.2
5	Increases Pass percentage	51.6	48.4	50.0	50.0	73.3	26.7	54	46
6	Increases the % of high achievers	53.2	46.8	60.0	40.0	70.0	30.0	56	44

Source- Online Survey 2020

Part 3- The advantages and Dis advantages, Problems and Challenges of e teaching through responses of respondents.

6.5- Advantages of E learning - Online learning generally has a lot of strengths like- Time flexibility, Location flexibility, Catering to wide audience, Wide availability of courses & content, Immediate feedbacketc.and now online learning to boom as most academic institutions have switched to this model. Online Learning, Remote Working, and e-collaborations exploded during the outbreak of Corona Virus crisis. Now, academic institutions can grab this opportunity by making their teachers teach and students learn via online methodology.Now Scope for Innovation & digital development, Designing flexible programs, Strengthen skills: problem solving, critical thinking, & adaptability, Users can be of any age, an innovative pedagogical approach(Radical transformation in all aspects of education)are main approaches. The people started looking at the fruitful side of e-learning technologies. This is the time when there is a lot of scope in bringing out surprising innovations and digital developments. The usage of online learning will test both the educator and learners. It will enhance problem-solving skills, critical thinking abilities, and adaptability among the students. In this critical situation, users of any age can access the online tools and reap the benefits of time and location flexibility associated with online learning. Theincreasing market demand for e-learning opportunity for EdTech start-ups to bring technological disruption in the education sector. It Enhanced Learning and increased depth of understanding and retention of course content; more meaningful discussions; emphasis on writing skills, technology skills, and life skills like time management, independence, and self-discipline. Levelling of the Playing Field: Students can take more time to think and reflect before communicating; shy students tend to thrive online; anonymity of the online environment. Interaction: Increased student-to-teacher and student-to-student interaction and discussion; a more student-cantered learning environment; less passive listening and more active learning; a greater sense of connectedness, synergy.

Innovative Teaching: Student-cantered approaches; increased variety and creativity of learning activities; address different learning styles; changes and improvements can translate to on-ground courses as well. Improved Administration: Time to examine student work more thoroughly; ability to document and record online interactions; ability to manage grading online.Savings: Accommodate more students; increased student satisfaction, higher retention and fewer repeats. Maximize Physical Resources: Lessen demand on limited campus infrastructure; decrease congestion on campus and parking lots. So student should be given options; reach new student markets; appeal to current students' thus increasing enrolments. The following table 6 reflects that 83.6% respondent believes that online teaching enhanced Learning,86% respondent believes that online teaching unbound by time or

location,83.2% respondent believes that online teaching is accessible at anytime from anywhere,67.2% respondent believes that online teaching is convenient way to education into busy lives increases Interaction,74.4% respondent believes that online teaching is helpful in improving educational Administration,54.4% respondent believes that online teaching increased student satisfaction,70.8% respondent believes that online teaching is convenience for learning,71.2% respondent believes that online teaching promotes innovative teaching, 75.6% respondent believes that online teaching is helpful in propt feed bac. This shows that online teaching have much advantage but in current scenario the satisfaction level is low and parents should be **facilitated by good teaching of their child** for acceptance of this method.

Table 6- Advantage of online teaching

SN	Aspects of awareness	Students		Teachers		Parents		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1	Enhanced Learning	86.8	13.2	76.7	23.3	70.0	30.0	83.6	16.4
2	unbound by time or location	86.3	13.7	86.7	13.3	83.3	16.7	86	14
3	Accessibility at anytime from anywhere.	82.1	17.9	93.3	6.7	80.0	20.0	83.2	16.8
4	Convenient way to education into busy lives.	63.7	36.3	83.3	16.7	73.3	26.7	67.2	32.8
5	increases Interaction:	76.8	23.2	70.0	30.0	63.3	36.7	74.4	25.6
6	Improved Administration	69.5	30.5	90.0	10.0	60.0	40.0	70.8	29.2
7	increased student satisfaction	51.6	48.4	73.3	26.7	53.3	46.7	54.4	45.6
8	Convenience for learning	71.6	28.4	66.7	33.3	70.0	30.0	70.8	29.2
9	promotes innovative teaching	67.9	32.1	90.0	10.0	73.3	26.7	71.2	28.8
10	propt feed back	79.5	20.5	63.3	36.7	63.3	36.7	75.6	24.4

Source- Online Survey 2020

6.6- Limitations and Negative impact of E teaching -.E-learning has certain weaknesses in the form that it can hamper the communication between the learner and the educator, that is, direct communication and human touch are lost. Users can face many technical difficulties that hinder and slow-down the teaching–learning process. Time and location flexibility, though it is the strength of online learning these aspects are fragile and create problems. Student's nonseriesbehaviour in terms of

time and flexibility can cause a lot of problems. They vary in degrees of their capabilities and confidence level. Some do not feel comfortable while learning online, leading to increased frustration and confusion. Inadequate compatibility between the design of the technology and component of psychology required by the learning process; and inadequate customization of learning processes can obstruct the teaching process and creates an imbalance.Effective online teaching is not the same as face-to-face (F2F). It is not a matter of whether it is equal. It requires different activities, some which are better done online. However, learners become disadvantaged if they are not provided with certain resources for learning independently and online: Access to devices appropriate for online learning. Some learning activities can be conducted using mobile devices. Internet access and adequate bandwidth (speed). Poor bandwidth can make many synchronous activities very difficult. For schools with students in poor bandwidth areas, a combination of asynchronous activities and telephone check-ins provides more support. Time zone friendly schedules. Changing teaching schedules to shorter class times in similar time zones with more meetings but fewer students at one time is more effective in online learning situations. If meeting times are combined with collaborative activities, students are more likely to log on and complete tasks or discussions. Effective feedback. Checking in with learners regularly is important. If systems allow, students can also get valuable feedback automatically from online quizzes and intelligent tutors as well as direct comments or discussion from peers and teachers. Opportunities for independent learning. Wherever they are, students are learning informally every day.

Designing learning activities and discussions that capture students' experiences while they are away keeps them engaged and gives teachers valuable feedback on how the students are feeling. It also provides opportunities for multiple perspectives in learning that might not happen if students were all physically together. Regarding the limitations and negative impact responses on 6 selected issues is taken.table 7 reflects that82.8% respondent believes that,online teaching harm to learners health 76.4% respondent believes that online teaching harms eyes to eye and organs, 77.2% respondent believes that virtual studies cant takes the place of real world, 70.4% respondent believes thatmultimedialisation of study material will weaken the students logical ability, 58.4% respondent believes that online learning decrease the functional capacity, 78.4% respondent believes that online teaching decrease the face to face interactive action. This reflects that maximum respondent believes that it is **harmful from health side if teaching is totally depend on online methods**, and parents are much focused on it.

Table 7- Limitations and Negative impact of E teaching

Aspects of awareness	Students	Teachers	Parents	Total

S N		Yes	No	Yes	No	Yes	No	Yes	No
1	Online teaching harm to learners health	80.0	20.0	86.7	13.3	96.7	3.3	82.8	17.2
2	Online teaching harms eyes to eye and organs	71.1	28.9	93.3	6.7	93.3	6.7	76.4	23.6
3	Virtual studies cant takes the place of real world	71.6	28.4	96.7	3.3	93.3	6.7	77.2	22.8
4	Multi medialisation of study material will weaken the students logical ability	63.7	36.3	93.3	6.7	90.0	10.0	70.4	29.6
5	Online learning decrease the functional capacity	46.8	53.2	96.7	3.3	93.3	6.7	58.4	41.6
6	Online teaching decrease the face to face interactive action	73.7	26.3	93.3	6.7	93.3	6.7	78.4	21.6

Source- Online Survey 2020

6.7 - Problems and challenges in E teaching in Indian Scenario

Besides the success of online teaching the various problems and challenges are emerging in current scenario. Online learning faces many challenges ranging from learners' issues, educators' issues, and content issues.The Technical Difficulties, Learner's capability & confidence level, Time Management, Distractions, frustration, anxiety & confusion, lack of personal/physical attention, Unequal Distribution of ICT Infrastructure, Quality of Education, Digital Illiteracy, Digital Divide, Technology cost & Obsolescence etc.

It is a challenge for institutions to engage students and make them participate in the teaching–learning process. It is a challenge for teachers to move from offline mode to online mode, changing their teaching methodologies, and managing their time. It is challenging to develop content which not only covers the curriculum but also engage the students. The quality of e-learning programs is a real challenge. There is no clear stipulation by the government in their educational policies about e-learning programs. There is a lack of standards for quality, quality control, development of e-resources, and e-content delivery. This problem needs to be tackled immediately so that everyone can enjoy the benefits of quality education via e-learning. One should not merely focus on the pros attached to the adoption of online learning during the crises but should also take account of developing and enhancing the quality of virtual courses

delivered in such emergencies. A lot of time and cost is involved in e-learning. It is not as easy as it seems, a considerable amount of investment is needed for getting the devices and equipment, maintaining the equipment, training the human resources, and developing the online content.

Measurement and Evaluation-How can teachers authenticate work that is being completed remotely? It is easier to authenticate student work online than most people think. However, it requires some changes to how assignments are presented and submitted for review. It also requires teachers to monitor students' online activity more closely than in normal classroom situations. Use more formative assessments that are designed to get students to work together and use online resources. Online learning, teaching and education continuity planning for schools. Have a very clear policy on how to submit work online. Students who are given a precise procedure are less likely to make mistakes in submissions, which accounts for many online learning integrity violations. So it is necessary to create more assignments that are collaborative. If the teacher is working directly with groups of students on their work, it is far easier for the teacher to monitor what the students are doing and to check their understanding.

Create questions and inquiries that require learners to embed their personal experiences and context into any assessed content. Since many online students will be in different locations, it will be easier for the teacher to see when a student is using their surroundings to compose their work. • Use plagiarism checkers whenever students have to submit individual work, and assign drafts of parts of the work prior to a final submission. Most plagiarism checkers can accept drafts of assignments to check against final submissions. • Create more multimedia assignments that require students to remix pictures, videos and text into their own creations. • Create libraries and pathfinders for students to use as part of assignments, then ask students to quote from them as part of their work. This check how well they are able to reference and cite work as well as reduce opportunities for copying the work of others. • Interview students about their work using a synchronous chat with audio or video feeds, if possible. It is much more difficult to produce spontaneous answers when talking online. • School should check login time, collaboration data, and submission types to see how often and long students are involved with assignments. Very short assignment involvement times may indicate students are submitting unauthenticated work. • For older students, consider using MOOCs type courses for certain topics or units. These should be designed to create learning experiences that evaluated using more multiple-choice and short answer assignments.

The education is fulfilled with three domains of learning – cognitive, affective and psychomotor, but online teaching is much useful in cognitive aspect while affective and psychomotor is lacks behind, which need attention during online methods of teaching. Table 8 focus on Problems and challenges in E teaching**,** according which87.6% respondent response abouttechnical disturbances and lack of reliable internet at home, 72% respondent response aboutHealth disturbances like frustration, anxiety &

confusion,75.6% respondent response about decreasing of values and ethics without direct contact of teachers,70.4% respondent response about Distraction, 58% respondent response Mischievous activities with teachers,75.2% respondent response about Problems in measurement and evaluation,62.8% respondent response aboutlow affective and psychomotor aspect in teaching,73.6% respondent response aboutUnequal Distribution of ICT Infrastructure,68% respondent response aboutPromotes copy paste approach, 70% respondent response aboutinternet abuses during adolescence. This shows that although it is good for development but during adolescence it is matter of handle with care.

Table 8- Problems and challenges in E teaching

S N	Aspects of awareness	Students		Teachers		Parents		Total	
		Yes	No	Yes	No	Yes	No	Yes	No
1	Technical disturbances and lack of reliable internet at home	86.8	13.2	83.3	16.7	96.7	3.3	87.6	12.4
2	Health disturbances like frustration, anxiety & confusion	66.3	33.7	86.7	13.3	93.3	6.7	72	28
3	Decreasing of values and ethics without direct contact of teachers	71.6	28.4	96.7	3.3	80.0	20.0	75.6	24.4
4	Distraction	63.7	36.3	93.3	6.7	90.0	10.0	70.4	29.6
5	Mischievous activities with teachers	51.6	48.4	93.3	6.7	63.3	36.7	58	42
6	Problems in measurement and evaluation	74.7	25.3	90.0	10.0	63.3	36.7	75.2	24.8
7	Decreasing affective and psychomotor aspect in teaching	57.9	42.1	96.7	3.3	60.0	40.0	62.8	37.2
8	Unequal Distribution of ICT Infrastructure	71.6	28.4	80.0	20.0	80.0	20.0	73.6	26.4
9	Promotes copy paste approach	66.3	33.7	60.0	40.0	86.7	13.3	68	32
10	internet abuses	66.3	33.7	93.3	6.7	70.0	30.0	70	30

Source- Online Survey 2020

General view of respondents regardingonline teaching method –In response to an open ended question about the overall benefits of online learning, the majority of students reported that it allows for students to work at their own pace within a given week, although the majority of students seemed to be partial to the flexibility of completing work in a time and place that was best suited for their learning. Respondent stated, thatonline teaching creates an environment that students can pace themselves according to their own educational needs. Several students also explained the benefit of having unlimited access to the internet throughout the course. Compared to traditional classroom settings, online course work requires and promotes the use of online research and resources. Traditional settings may be limited in their technological capacity to meet the needs of all students; therefore the routine use of technology in a traditional classroom may be inhibited by a cost barrier to the school district. Several respondents state that independence and "motivation" as important characteristics that the online course brings out in students who wish to be successful. The most frequent challenge respondents noted was the lack of reliable internet at home. Some stated lack of face-to-face help from the instructor. The essential components to a successful online student. "Good work ethic," "time management," "motivated," "independent," "responsible," and the ability to "see the overall objective of school" were some of the reoccurring characteristics thought to be important aspects of a successful student. Time management was the most mentioned characteristic, some respondents noted the difficulties of balancing the benefit of working at one's own pace with still meeting course deadlines.At last by the questionnaire it is observed that respondents view regarding positive phase of online teaching 84.2 % students says that it makes lessons interesting, 73.7% says that Flexibility of completing work and time management, 81.6% says that it involved students actively in learning and encourage interaction, 86.8% says that it Covers good content knowledge, 86.8% says that it is a Innovative methods of teaching, 74.7% says that it Increased the marks and analysing capacity, 88.4% says that it Good to explain and understand, 80.0% says that it gives holistic and sustainable understanding, 90% says that it Pace according to their own educational needs, 92.1% says that it is easy for revision and retention. This explains that **online teaching is more fruitful with traditional teaching methods**.

Table 9- Students view regarding online teaching method

S.N	Respondents views	Response in %		
		Yes	No	Don't say
1	Makes the lessons Interesting	84.2	9.5	6.3

2	Flexibility of completing work and time management	73.7	20.0	6.3
3	Involved students actively in learning and Encourage interaction	81.6	13.2	5.3
4	Covers good content knowledge	86.8	5.3	7.9
5	Innovative and scientific methods of teaching	86.8	5.8	7.4
6	Increased the marks and analysing capacity	74.7	11.6	13.7
7	Good to understand by online research and resources	88.4	2.1	9.5
8	Gives holistic and sustainable understanding	80.0	8.9	11.1
9	Pace according to their own educational needs	90.0	5.3	4.7
10	Easy to revision and retention	92.1	4.7	3.2

Source- Online Survey 2020

7- Conclusion and suggestion -Having unity in diversity, India is now known as a young country, which will also be known for its aging pattern in future. Across the world, information technology is dramatically altering the way students; faculty and staff learn and work. As the demand for technology continues to rise, education is moving all sorts of student services, now the Information and communication technology has made many innovations in the field of teaching and also made a drastic change from the old paradigm of teaching and learning. In the new paradigm of learning, the role of student is more important than teachers. Nowadays there is democratization of knowledge and the role of teacher is changing to that of facilitator. Ultimately the teaching people are satisfied when he could reach the students community with his ideas and views. The teaching depends upon successful mode of communication and Innovation though we mean the changes that we propose to be included in our medium of communication or even inclusion of some other elements in communicating information, now the role of teacher is becoming more challenging. To project the knowledge in the student, teacher use various teaching methods. The Online teaching is most useful in teaching. Now the pandemic has changed the way how several people receive and impart education.

Teachers have become habitual to traditional methods of teaching in the form of face-to-face lectures, and therefore, they hesitate in accepting any change. But amidst this crisis, we have no other alternative left other than adapting to the dynamic situation and accepting the change. It will be beneficial for the education sector and could bring a lot of surprising innovations. We cannot ignore and forget the students who do not have access to all online technology. These students are less affluent and belong to less tech-savvy families with financial resources restrictions; therefore, they may lose out

when classes occur online. They may lose out because of the heavy costs associated with digital devices and internet data plans. This digital divide may widen the gaps of inequality. This terrible time of fate has taught us that everything is unpredictable and we need to be ready to face challenges. This pandemic has also taught us that students must possess certain skills such as skills of problem-solving, critical thinking, and most importantly adaptability to survive the crisis. Today, we are forced to practice online learning, things would have been different if we have already mastered it. As most of the schools, colleges, universities, companies are closed due to lockdowns/curfews and most of the people are working from home, the online apps helped in keeping people connected via video conferencing. Instruction, content, motivation, relationships, and mental health are the five important things that an educator must keep in mind while imparting online education (Martin, 2020). Some teaching strategies (lectures, case-study, debates, discussions, experiential learning, brainstorming sessions, games, drills, etc.) can be used online to facilitate effective and efficient teaching and learning practices. In such panicky situations, where the lives of so many people are at stake, teaching and learning should be made interesting. This will also reduce the stress, fear, and anxiety levels of people. To make e-learning effective in such difficult times, we need to focus on the use of technology more efficiently, that is, the usage of that technology which has minimum procurement and maintenance costs but can effectively facilitate educational processes. Before bringing in and adopting any e-learning tool or technology, its pros and cons need to be weighed. Institutions should conduct plenty of research when bringing the right technology for different educational initiatives. There should be proper clarity on the purpose and context of technology adoption. As several factors affect the choice of a particular technology such as security features, availability and condition of laboratories, internet speed, internet access, level of digital literacy, level of the beneficiaries, and so on. E-learning can help in providing inclusive education even at the time of crisis.

In this concern the present analysis reveals some of the suggestions that these teaching tools help the student to improve their educational outcomes. The gap between educational outcomes by traditional teaching and by e- teaching tools is broad and the output of these tools is much better than other methods. These tools improve not only curricular but also co-curricular aspect of students in teaching. The researchers recommend that the teaching would be highly effective if the teacher start to use these methods and recent multimedia technologies like usage of computers extensively or some modifications in the conventional mode of teaching. The researcher believe that the core objective of teaching is passing on the information or knowledge and values to the minds of the students, and online teaching method by using computers improves the learning levels and learning outcomes in Geography.Therefore, an effective and efficient educational system needs to be developed to impart

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education via online mode. Ensuring digital equity is crucial in this tough time. Not all the teachers and students have access to all digital devices, internet, and Wi-Fi. Unavailability of proper digital tools, no internet connections, or iffy Wi-Fi connections can cause a lot of trouble due to which many students might lose out learning opportunities. Efforts should be taken by institutions to ensure that every student and faculty is having access to the required resources.

They must also ensure that all the educational apps work on mobile phones as well, in case students do not have laptops. Therefore, steps must be taken to reduce the digital divide. Practice makes a man perfect is a famous and very true proverb. Students and teachers across various universities have never really practiced e-learning. Most of them are complacent and are stuck with traditional modes of teaching. The Corona Virus outbreak is the chance to make out the best from the current situation. We can learn a lot in this challenging situation. A lot of tools are available, teachers are required to choose the best tool and implement it to impart education to their students. A step-by-step guide can be prepared by academic institutions that can guide the teachers and students on how to access and use various e-learning tools and how to cover major curriculum content via these technologies thereby reducing the digital illiteracy. Teachers can present the curriculum in various formats, that is, they can use videos, audios, and texts. It is beneficial if educators complement their lectures with video chats, virtual meetings, and so on to get immediate feedback and maintain a personal connection with the students.

Overall, the research indicates the benefits of online teaching outweighs the challenges that students face. Further research on a larger scale, involving more students, professors, and online courses is needed to better evaluate the benefits, challenges, and useful strategies of successful students. It could be that student respondents to this survey had a uniquely different experience than their counterparts taking online courses elsewhere. Given the limited number of respondents, this research is based on a very small population, and which could not be generalized. Even the modifications suggested might suffer from other limitations. These tools are also labour consuming and useful for tech. savvy teachers.

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