# ONLINE LEARNING ENVIRONMENT AND ITS CHALLENGES: DECODING TEACHERS' PERSPECTIVES

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*Abstract*

*The present pandemic has opened an avenue for all stakeholders of education, especially for teachers, to think about the alternatives that can be explored to keep educational processes going. The sudden outburst of this situation compelled teachers and students to create, adopt and adapt to online learning environment despite the fact that preparations and infrastructural support for the same were limited. The curriculum and examinations related commitment motivated teachers to complete the teaching learning process in due time. However, the challenges for the teachers to do so were quite immense. This paper focuses on the teachers' perspectives of online learning environment and its challenges that they came across during online teaching learning process. Based on a research survey, conducted on 110 teachers of 26 higher educational institutions of India, this paper contends that majority of teachers were enthusiastic to learn new technologies and felt that this shift made them more empowered. However, major challenge they found was lack of band width & connectivity, students' active participation and smooth interaction. This paper also highlights the perception of teachers about feasibility of online assessment and its current alignment with the curricular reforms that is the need of the hour. The paper contends that the blended approach of teaching learning may precipitate enhanced learning environment for all the stakeholders of education for the betterment of all that may pave way for futuristic educational planning even when the situation gets back to normalcy.*

***Keywords-*** *Online Learning, assessment, challenges, blended learning, education*

## 1. INTRODUCTION

The present pandemic has, despite all its threats and disastrous effect on humanity, opened an avenue for all stakeholders of education, especially for teachers, to think about the alternatives that can be explored to keep educational processes going. In spite of the herculean task of copying up with the sudden emergence of this situation all across the globe and preparing themselves to impart education to millions of students, they have been trying their best to do their bit for this cause. The teachers are burning their midnight oil to complete the teaching learning process which has been disrupted due to pandemic that enveloped the population at large so quickly. In lieu of face to face mode of teaching, teachers had to shift to online mode of teaching. This development was so fast that hardly a handful of teachers were having proper preparation to handle this. Maximum teachers are facing the challenges of lacking online teaching experience, early preparation, or support from educational technology teams. But teachers as well as students are trying their best to create, adopt and adapt to online learning environment despite the fact that preparations and infrastructural support for the same are limited.

Comparing the developed world to the developing countries, it has been found that developing countries are facing challenges such as poor internet connectivity, inadequate knowledge on the use of ICT and inefficiency of content development (Aung & Khaing, 2015). For example, delivering content like video, podcasts and other applications is still new to many educators even at the higher level in developing countries. Moreover, when it comes to examination, whole process of online education resorts back to pen-paper mode of examination.

Though, India has a long history of imparting education through distance education courses. At present there are 14 open universities and a number of conventional universities offering various courses in distance mode. But to shift all the existing courses online in a matter of days is really difficult. An online course needs instructional design- an idea, teaching materials audio and video contents and technology support also. These circumstances make us realize that scenario planning is an urgent need for academic institutions (Rieley, 2020).

However, all this has brought forth some very pertinent issues to deliberate on.

- What are the alternatives that could be thought of, in order to deal with the crisis?
- Whether the present online education phenomenon is able to reach out and do good to those who are still struggling for their survivals?

- Can we have creative alternatives of existing assessment and evaluation system?

- How can some of the discipline specific competencies, like those in language and literature and in Mathematics or in Science, be developed and assessed through online educational processes?

- Whether e-assessment can replace the conventional assessment system completely?

- What kind of systematic reforms do we need for aligning curriculum and alternative assessment system?

- Where can we situate the coordinates of alternative assessment and evaluation system in the scheme of teaching learning processes?

- What may be the pedagogical alternatives to deal with the challenges of present and future?

This paper focuses on teachers' perspectives of online learning environment and its challenges that they came across during online teaching learning process. Their perception about feasibility of online assessment and its current alignment with the curricular reforms. This paper also contends that the blended approach of teaching learning may precipitate enhanced learning environment for all the stakeholders of education for the betterment of all that may pave way for futuristic educational planning even when the situation gets back to normalcy.

## 2. ONLINE LEARNING OR E- LEARNING

The advent of Internet has transformed the whole process of learning. Now anyone can learn anything anywhere at any time. In the present scenario, Internet has played the role of a bridge between learners and learning and thanks to a new development called E-learning. As E-learning seems to be the panacea for all the learning issues faced by teachers and students during this trying times.

Learning, which uses electronic media by using all the facilities of information technology, is termed as E-learning or Online learning. It is the use of information and computer technologies to create learning experiences. It is a tool that makes the teaching–learning process student-centered, innovative, and flexible. Online learning is learning experiences in synchronous or asynchronous environments using electronic devices i.e. mobile phones, laptops, etc. with internet access. The synchronous learning environment is such that students attend live lectures, there are real-time interactions between educators and learners, and there's an opportunity of instant feedback, whereas asynchronous learning environments are not properly

structured. In such a learning environment, content is not available in the form of live lectures or classes; it is available at different types of learning systems such as blogs, forums, recorded videos, audios etc. Instant feedback and immediate response aren't possible under asynchronous learning (Littlefield, 2018).

## 3. ADVANTAGES & DISADVANTAGES OF ONLINE LEARNING

Online learning increases child's retention and reduces learning time. Consistent delivery of content is possible with the help of asynchronous self-paced learning. Expert's knowledge is just not only communicated it can be easily captured with knowledge management systems. On-demand availability enables students to complete course or syllabus conveniently at off-hours or from home. Self-pacing reduces stress and increases satisfaction specially in slow learners. Easy availability of reference material too reduces the burden of gathering material. These are the few of many advantages of on line learning. But it does have limitations. No doubt online learning offers flexibility and expediency to learners and paves way for innovative teaching but without proper internet speed it's not possible. Broadband connectivity, unavailability of required technologies, compatibility issue of all software and hardware. Inappropriate content for e-learning may exist, it's difficult for learners to identify. Reduction of social and cultural interaction. Lessened interaction with the teachers. Reduction in peer to peer learning are major disadvantages that can't be ignored.

## 4. ONLINE TEACHING LEARNING (OTL) – A NEED OF THE HOUR

Due to pandemic there has been an overnight shift of normal classrooms into e-classrooms. Institutions which were earlier reluctant to change have to accept and adapt to modern technology. Educators have to shift their entire pedagogical approach to adapt to the new changing situations. As this shift has been the only possible solution to make the teaching learning process going due to uncertainty of reopening of educational institutions. Students, who were initially apprehensive, found attending class online has helped them finish their courses timely and made them confident to appear for online examinations as for many it's their first experience of online class and exams. No doubt online class has established a strong communication and rapport between students and teachers which helped students to avert from all kinds of anxieties they develop during these testing times. Online media can ensure multiple benefits for both students and teachers in supporting teaching and learning (Graham & Misanchuk, 2004). Many learning activities, experiments are hard to perform in real world because of high expense, lack of infrastructure or its feasibility; for example, medical students

watching Heart operation or law students watching court cases live on YouTube. But in virtual world all this is possible. According to You & Kang, 2014, many studies reveal that online courses have been found to be conducive to students who favor self-regulated learning. With the help of online teaching modes, a large number of students can be taught at any time and in any part of the world. A teacher can video conference 40 to 50 students of her/his class at a time and can keep the classes organic. Students can watch recorded videos on laptops, phones etc. Instant feedback and assignments can be easily taken. Online education has become a prodigy child being neglected child previously. Challenge of quality education, personalized teaching learning and distance are few of the many that need to be tackled but innovative solutions by institutes, change in role of teachers, endeavors by IT companies can solve the problem. As it's difficult for academic institutions to be able to transform all of their college curricula into an online resource overnight. Google Classroom, Google hangouts, Google forms, Google Jam board, Moodle, Microsoft Teams, Google Meet, Moodle LMS, Edmodo, Sakai, Joomla, Schoology, White Board, Jitsi meet, Zoom, Cisco WebEx etc. are few of the many tools which became saviors in the ongoing problematic situation.

## 5. RESEARCH DESIGN: COLLECTION OF DATA, ANALYSIS OF BENEFITS & CHALLENGES OF OTL

Research survey was conducted with the help of "Google forms", for this URL link was posted on WhatsApp of the teachers of Higher Educational Institutes of India through contacts. Due to lockdown, the Google form was considered suitable for the study. A Purposive sampling technique was employed to select the participants as the detailed information about the research questions was needed (Buchanan, 2012). Teachers of higher educational institutes were asked to answer the questions in an online learning situation as they have just shifted from conventional to online learning. The teachers gave their consent for voluntarily participation before the study began. The intent was to get maximum responses, but 110 teachers of 26 higher educational institutes' responses were returned usable. Questions were based on teachers' perception about online classes, their knowledge of tools, competences, readiness, students' interest and feasibility of online assessment. Based on survey, it was observed that around 50% of the teachers took online classes first time in their life but they were aware of the online tools. However, majority of teachers were enthusiastic to learn new technologies and felt that this shift made them more empowered. But the major challenge they found was lack of band width & connectivity, students' active participation and smooth interaction. Though

they have been giving regular assignments and taking online assessments but they were concerned about its feasibility and achievement of predetermined learning goals.

| **Benefits** | **Challenges** |
|---|---|
| Availability of content & courses | Affordability |
| Appeal-graphics, animations etc. | Quality Education |
| Reinforcement | Digital Illiteracy |
| Immediate Feedback | Lack of personal attention |
| Flexibility of time | Distractions, Frustration |
| Lifelong learning | Technical Glitches |
| Cater to huge audience at a time | Isolation |
| Cooperative learning | Learning Styles |
| Innovative pedagogical approach | Time Management |
| Digital development | Content Development & Delivery |
| Development of skills- critical, problem solving etc. | Assessment |

**Fig. 1 Analysis of Benefits & Challenges of OTL**

**Fig. 1** depicts the benefits and challenges of OTL from the perspectives of teachers as well as students. Online teaching learning is student centric, flexible, can be customized as per the needs of the students. It creates collaborative and interactive learning environment. Teachers can use audios, videos, text, graphics to make their content interesting and engaging. Plenty of online tools are available and many have been launched especially for teachers during this crisis. Though there are many pros of OTL but one has to look into the challenges too because online teaching learning can't just be kept for emergencies. OTL faces many challenges ranging from teachers' issues to students' issues and content issues. First and foremost, in rural areas internet facilities are not available, moreover people can't afford it and if students use mobile phones then poor signal interrupt connectivity. Poor signal is not only case of rural areas, urban areas too face this problem. It is difficult to develop content which is according to curriculum as well as interesting and engaging. In NEP 2020 online learning has been given huge importance but there are no educational policies which clearly specifies E-Learning programs. Though government digital educational initiatives like SWAYAM, e-PG Pathshala, Vidwan, Vidya mitra, One India One Digital Platform, Sakshat, GIAN, Virtual Lab & e-Acharya etc. are trying to fulfill objectives - equity, equality and access of educational policy and has been of great help during this crisis but there is a long road ahead. Lack of standards of e-content development and e-content delivery has to be seriously looked upon. Non serious

attitude of students, non-affordability of equipment, digital illiteracy/equity of both teachers as well as students, learning styles of students with their cultural influences, assessment is another biggest challenge - quizzes, self-assessment, discussion, projects, group work all can be done easily via online mode but all students don't have that critical thinking. They need proper guidance and nurturing. In nut shell, it can be said that this new trend demands better technology and dynamic teachers with changed roles.

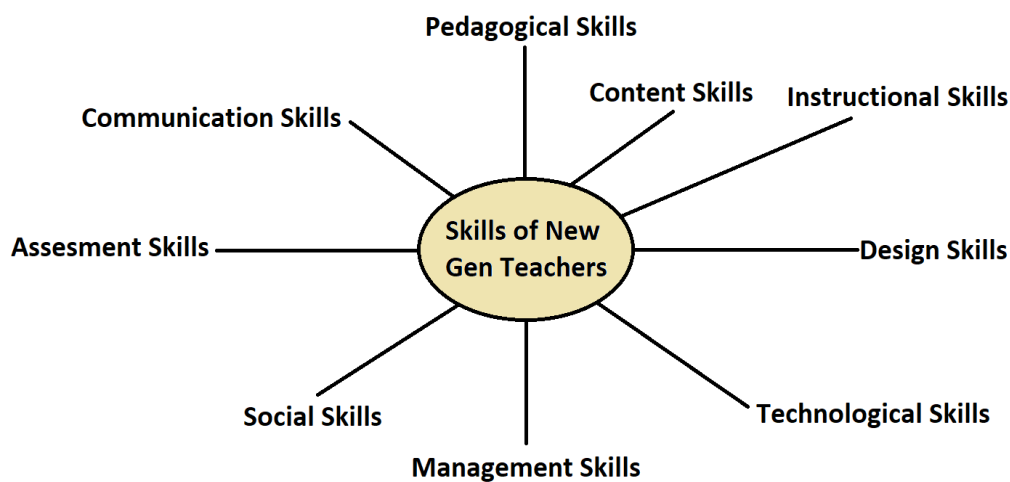## 6. INTERPRETATION: THE CHANGING ROLES OF TEACHERS IN ONLINE LEARNING ENVIRONMENT



**Fig. 2 Skills of New Gen Teachers**

**Fig. 2** highlights the skills teachers' need in OLT environment to teach effectively as their new role is more complex and demanding. First thing a teacher needs to be aware of is fundamentals of online teaching and pedagogy i.e. **Pedagogical skills**. Learner centered approach must for students different learning styles. Proper guidance , encouragement of knowledge construction, group interaction, collaborative learning, team work are few of the many things that teacher need to keep students motivated and interested. **Content skills**- Stating learning objectives and goals keeping in mind learners' level. Developing activities alligned with learning objectives. Developing appropriate learning resources and linking it with scienctific, social and cultural phenomena. **Design & Instuctional Skills-**It is difficult to design and develop online courses and it is mainly done by experts but teacher needs to understand instructional design principles.They should divide the content into small units while designing instructions. Can plan to instructions for offline mode also by asking students to prepare short papers and submit online. Students feedback can help them to modify their online course.**Technological skills-**

To easily download apps, browsing and uploading contents are few basic skills that can help students and teachers to do their work in online mode efficiently. Usage of LMS, Creating e-content can be easily learnt by little endeavour. Teachers can use OER's. Open Educational resourses are freely available online instructional resources for teachers to share, use & reuse knowledge. Utilization of OER's enhances students learning outcomes, gives flexibility to teachers to customize instructional materials at low production costs. **Managerial Skills-** Managing learning is important in OTL environment. Saving time and managing time is must due to its flexible nature as students take it for granted. Monitoring students' progress their timely submission of assignments, timely completion of course needs leadership skills. **Social & Communication skills-** To engage students active communication and social presence is needed. It promotes interactivity in class. Personalized messages promote empathy and sentivity among students as well as with the educator too. Usage of different learning tools, multimedia, graphics, blogs, forums etc. will help students to praticipate more in the class. **Assessment Skills-**Assessment is the most challenging part of this shift from traditional to online due to its feasibilty and to ensure that students don't cheat. So teachers hard work has been multiplied and institutes need to improve their technical aspect to survive in this crises. Personalized feedback, Peer evaluation, continuous assessment, mentor assessment as part of video conference, self paced (asychronus) activities, self assessment and criterion based assessment are few examples which teachers can use.

Though it is difficult to replace conventional assessment but this lock down has forced us to explore creative alternatives of existing assessment. Many online tools and softwares are quite helpful in taking assessment like Google forms, Google slides, Google Docs, Hot potatoes, Quizlet, Rubi star, I Rubrics, Assess Ed, kahoot for interactive quizzes, Lifeline helps in story making, Sheppard for interactive videos, C Maps for checking cognitive thinking of students. Teachers can show Vlabs & Pet simulations to biology students & Zeo Zebra to Maths students. Its really difficult for teachers to have all the skills and excel in each and everything. Still they really worked hard and coped up with the ongoing pandemic. But to make OTL environment worthy, teachers need to undergo professional development programmes to fulfil their new roles and responsibilities. Assessment analysis tools can be made based on these skills. With the help of these tools teachers can self evaluate their skills and can recognize their own learning and training to ensure their readiness and qualification to teach in online learning environments.

## 7. CONCLUSION

Despite number of challenges faced by teachers and students during online teaching learning, the joint efforts of all the stake holders have borne the fruit of success by minimizing the loss of students' academic activities during these trying times. But it should be contemplated seriously that online teaching learning is just an emergency remedy or a new pedagogical approach that will enrich and enhance the educational possibilities of all the schools, universities etc. All universities need to rethink and innovate to what student learns and how educators teach. As learning is lifelong and student centric, this world is becoming techno savvy then due consideration should be given to online learning environment. Its affordance and flexible nature can increase the readiness of both students as well as teachers. But it is not easy to do so as there are many issues to contemplate on. Firstly, the considerable amount of investment is needed for getting & maintaining equipment, training the human resources, and developing the online content which not only covers curriculum but engages students too. Therefore, an effective and efficient educational system needs to be developed for imparting education online. Another challenge is the quality of e-learning programmes. In NEP 2020 online learning has been given huge importance but there are no educational policies which clearly specifies E-Learning programs. Though government digital educational initiatives like INFLIBNET & NIMEICT are trying to fulfill objectives - equity, equality and access of educational policy. Secondly, students are struggling for their survival so how this online education will reach to them? Digital equity is must as students can lose learning opportunities due to lack of internet facility or digital tools. To reduce digital divide efforts should be taken by schools or universities that all students and teachers have access to required resources and apps should be able to work on phones also. A guide should be prepared by academic institutions that can reduce digital illiteracy by guiding students and teachers about usage of various e-learning tools and how to cover curriculum by these technologies. Thirdly, educational systems are designed and reformed as per the needs of the society, so there is an urgent need that students must possess skills of problem-solving, critical thinking, and most importantly adaptability to survive the crisis. Educational institutions should try to adopt such measures that help in imbibing these skills in their students. 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). Teachers too need to be well versed in technology and should encourage students towards e-learning for a positive outcome. The

teachers should keep check that quantity, level of difficulty and length of content should match with students online learning readiness. Adjustment in teaching speed for effective delivery and students' concentration is must. Teacher should adopt innovative measures to increase students' participation in class. In nutshell, the teacher should possess skills like pedagogical, instructional, social, communicative, managerial etc. Another major issue is, how can discipline specific competencies be assessed by online educational processes? Assessing students online is quite difficult, their body language can't be read. It's difficult to monitor them. But there are several online tools like photo math, Zeo zebra for Mathematics. iSpring suite for Drag-and drop activity in this text and images is added student's learner's ability to link information and apply knowledge to solve a practical problem can be easily assessed. Online interviews can be conducted to assess student's mastery of specific skills like proficiency in language, music etc. Dialog simulations for training students for real life conversations. Online polls for capturing feedbacks, game bases assessment, peer evaluation etc. There is no dearth of online tools, teachers with their innovative ideas and knowledge of appropriate tool can take online assessments. Though it is difficult to replace traditional assessment and evaluation system but their creative alternatives can be explored. For smooth functioning of everything, there is a need of systematic alignment of curriculum, instruction, learning tools and assessment. It will result in efficient and effective daily teaching. It will only be possible if all students get equal opportunity and no digital divide is there. Initiatives from government, educational institutions can be of great help.

The outcomes of such a revelation about the design, teacher presence and assessment in online learning urges for the need of educational change towards more flexible models and practices. Blended Learning a new pedagogical design which is not limited to online teaching learning but a blend of both online and face to face is the future that will not only increase educational benefits but pave way for development of higher education. Garrison and Kanuka (2004) argued that thoughtfully designed blended learning can preserve and enhance the 'traditional values' of higher education. The goal of such learning is to maximize learning with an enriching experience that can engage and motivate students in productive activities. In blended learning students complete the theoretical component of the course through online learning which include video lectures, online activities, eBooks, blogs, forums etc. and attend college once or twice per week or as per college format to strengthen the knowledge they gained at home and participate in hands on practice and build connections with their teachers and peers. So, it can

be said that blended learning is the pedagogical alternative to deal with the crises of present and future.

## References

*Aboagye, E., Yawson, J.A., &Appiah, K.N. (2020). COVID-19 and E-Learning: The Challenges of Students in Tertiary Institutions. Social Education Research, Vol.1(1)109-115.*

*Albrahim, F. A. (2020). Online Teaching Skills and Competencies. The Turkish Online Journal of Educational Technology, Vol.19(1).*

*Aung, T.N., Khaing, S.S. (2015). Challenges of implementing e-learning in developing countries: A review. International Conference on Genetic and Evolutionary Computing, Springer, Cham, p.405-411.*

*Basilaia, G., Dgebuadze, M., Kantaria, M., & Chokhonelidze, G. (2020). Replacing the classic learning form at universities as an immediate response to the COVID-19 virus infection in Georgia. International Journal for Research in Applied Science & Engineering Technology, 8(III).*

*Bao, W. (2019). Bridging the gap between research and practice: Identifying high-impact educational practices for Chinese undergraduate education. Peking University Education Review, 1, 105–129.*

*Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. Hum Behav & Emerg Tech., 2:113–115. https://doi.org/10.1002/hbe2.191.*

*Buchanan, D.A. (2012). Case studies in organizational research. Qualitative organizational research.,5: 351-70.*

*Dhawan, S. (2020). Online Learning: A Panacea in the Time of COVID-19 Crisis. Journal of Educational Technology Systems, Vol. 49(1) 5–22.*

*Frazer, C., Sullivan, D.H., Weatherspoon, D., & Hussey, L. (2017). Faculty Perceptions of Online Teaching Effectiveness and Indicators of Quality. Nursing Research and Practice, Vol.1. https://doi.org/10.1155/2017/9374189.*

*Garrison, D. R., & Kanuka, H. (2004). Blended learning: uncovering its transformative potential in higher education. The Internet and Higher Education, 7(2), 95–105.https://doi.org/10.1016/j.iheduc.2004.02.001.*

*Graham, C. R., & Misanchuk, M. (2004). Computer-mediated learning groups: Benefits and challenges to using groupwork in online learning environments. In T. S. Roberts (Ed.), Online Collaborative Learning: Theory and Practice (pp. 181–202). Hershey, PA: Idea Group.*

*Islam, N., Beer, M., & Slack, F. (2015). E-Learning Challenges Faced by Academics in Higher Education: A Literature Review. Journal of Education and Training Studies, Vol. 3(5).*

*Kebritchi, M., Lipschuetz,A. , & Santiague.L.(2017). Issues and Challenges for Teaching Successful Online Courses in Higher Education: A Literature Review. Journal of Educational Technology Systems, Vol. 46(1) 4–29.*

*Keengwe, J., Kidd, T.T. (2010). Towards Best Practices in Online Learning and Teaching in Higher Education. MERLOT Journal of Online Learning and Teaching, Vol. 6(2).*

*Littlefield, J. (2018). The difference between synchronous and asynchronous distance learning. https://www.thoughtco.com/synchronous-distance-learning-asynchronousdistance-learning-1097959.*

Martin, A. (2020). *How to optimize online learning in the age of coronavirus (COVID-19): A 5-point guide for educators.*

https://www.researchgate.net/publication/339944395_ 20. *Journal of Educational Technology Systems 49(1).*

Raja, R., Nagasubramani, P.C. (2018). *Impact of modern technology in education. Journal of Applied and Advanced Research, 3, S33–S35.*

https://dx.doi.org/10.21839/jaar.2018.v3S1.165.

Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). *Online University Teaching During and After the Covid-19 Crisis: Refocusing Teacher Presence and Learning Activity. Post digital Science and Education. Springer. https://doi.org/10.1007/s42438-020-00155-y.*

Rieley, J. B. (2020). *Corona Virus and its impact on higher education. Research Gate.*

You, J. W., & Kang, M. (2014) *The role of academic emotions in the relationship between perceived academic control and self-regulated learning in online learning. Computers & Education, 77, 125-133.*

Yanti, H., Setiawan,A., Nurhabibah & Yannuar. (2017). *Teacher's Perception about the Use of E-Learning/Edmodo in Educational Activities. ICIEVE, IOP Publishing.*