MIXED SHADES OF ONLINE EDUCATION

Dr. Archana Bobade/Shelke
Assistant Professor
Dr. Panjabrao Deshmukh
Arts and Commerce (Eve) College Nagpur (M.S.)

★★★

Abstract - Rapid changes in the technology has impacted the education sector a lot. Technology growth has touched all the spheres of human life. Education is not away from this. Education sector has witnessed robust changes because of the advancement of the technologies. It has observed phenomenal changes during COVID 19 pandemic. Several researchers are working on the differences between online and offline education. Online education is especially getting accepted in engineering and management. There are many advantages as well as disadvantages of online education. This paper addresses the issues in online education as well as its benefits.

Keywords: Neuropsychological, visual cortex, Swayam, online learning syndrome, .

Online education can be defined as the provision of passing the information/knowledge to a distant audience with the support of internet as intermediary. Online education has become mandatory if we wish to continue our journey of learning. But online education have few advantages and lot of disadvantages. This paper briefly reviews the pros and cons of online education. Online education is getting accepted and has proved a boon on adult learning. In India, MOOC (Massive Open Online Course) is providing online education free of cost. It is gaining much popularity because of its flexibility and affordability.

Factors responsible for bringing online education in the mainstream

Following are the principal reasons for penetration of online education in India.

1. Internet availability in India :- In India internet users are increasing at the rapid rate of 11.34%. This is in turn increasing the number of smart phone users. Affordability of smart phones and fast speed internet playing crucial role in increasing the number of internet users. Because of internet, world class education is at the door of learners s/he may be from urban areas or rural areas.

2. Saving of money, time and energy in online education :- As online education can be obtained anywhere, anytime. Learners get the pre-recorded lectures/videos through YouTube or separate apps of the agencies providing online education. Costing of online education is very low as there is a massive amount of learners. Learners can use the education material at their convenient time. Online education saves the heavy expenditures like hostel and transportation fees, books purchasing etc.

3. Learning while earning :- Online education have been possible to working class also as they can do degrees/ diploma or can achieve any other dreamed qualification through online without quitting the current job. As online education can reach to more learners, agencies can give more options and flexibility to learners. Even IITs have initiated higher online education like imparting the degrees of M. Tech. or B. Sc./ B.Tech. in Data Science etc.

4. Motivation by Government of India :- Several efforts are being taken by Government of India for the advancement of online education. Swayam is the popular platform supported by GOI for offering several courses free of cost including certification programs. Intention is to get the quality education to the citizens of India.

5. Bridge the gap between education level and industry expectations :- As online education is massive, agencies can afford the participation of industry experts. Which in turn can bridge the gap between the training given by the educational institutes and the industry needs. Advanced courses through industry experts can enhance skills of learners.

Online education has been the mandatory component for continuing education in COVID situation. This has been possible using online platforms such as Zoom, Google classrooms, Microsoft teams, Webex etc., While there are many advantages of online education; there are many challenges and weaknesses too.

Mixed shades :- High speed internet facility is not available everywhere and stable power supply is the main hurdle. High speed data network is essential for animation, simulation, non-interrupted video streaming.

Marginal Social interaction :- As for taking online education, no one is stepping out, there is no direct communication between the mentor and mentees. And hence very less discussion on batch-mates also. Discussions/communication taking place through email, chat room or discussion groups do not appeal the students for enthusiasm or an excitement. Because of the lack of strong bonds or the rapports, good contact for the career growth are not building up. Several researches have revealed that lack of social interaction can lead higher rates of negative outcomes for the mental and physical health of individuals. Studies have found that interaction with mates physically reduces depression and anxiety. Less social interaction may increase feelings of social anxiety and pressures. For example, teenagers may worry about changes in their friendships as a result of prolonged isolation.

Motivation :- Some students require constant motivation, counselling and watch. Student monitoring is the biggest hurdle in online education. In case of self-paced online programmes, students need to be highly self-disciplined and avoid the procrastination. The dropout rate in online education is very high.

Medium of Instruction :- We know India lives in villages and many of the villagers do not understand English. Even though Government is offering free courses, but most of those online courses are in English. Government is trying for the translation of the digital content. Translating so much digital content in any other language is a challenge and it could not be a continuous process as the technology advancements are taking place every single day and hence are the digital contents.

No provision for physically disabled learners

There are the issues with visual and hearing impairments. Those are facing lot of problems in online education.

Neuropsychological impact of online education :- Study of Takeuchi et al reveals that much screen exposure causes structural changes such as reduced volume of the cortex with loss of integrity pertaining to the white matter region. In turn, this may reduce grey matter in prefrontal regions. This structural changes affects concentration, processing speed, verbal intelligence, and sustained attention, respectively. As digital content on online education are equipped with animations, visualizations, understanding of such contexts require brain to rapidly switch between tasks, which leads to high consumption of the metabolic energy, and time at the neural level. It results in impaired recall. Digital content also overloads upon working memory. It affects individual's ability to register, process, and remember information with accuracy.

Teacher issues :- New challenges demand novel approaches to the process of teaching-learning. Online teaching has become too much painful to many teachers. It has increased the workload a lot. Faculties are preoccupied with multifaceted responsibilities. There are so many institutions which are not following the cadre ratio. Employers feel that if a faculty can conduct an online class of 60, he can conduct it for 240 students also. Hence there are dropouts of many teachers leading to job problems also. Faculties are experiencing the mental and emotional pressures which can lead in the deterioration of physical health of teacher. These self-reported distress can leads to cancer or other heart diseases.

Most of the teachers have chosen their profession for satisfaction or the professional fulfillment that they enjoy teaching in the class rooms. While teachers being educated agree that online education is becoming mandatory, but it is not the modality they embraced when they decided to become teachers. Hence, many teachers are losing professional fulfilment.

Online Learning Syndrome :- Taking and attending online lectures require lot of preparation. From teacher's point of view, they require hard work for the preparation of digital contents which must be appealing to students, and if possible with complementary of animations, simulations etc. to rouse the interest of the learners. Student's point of view, learners, particularly teens experience the difficulty in concentrating or staying focussed while at home. Thus, spending a significant amount of time online can fatigue both students and their teachers. Listening complete videos throughout the day may drain the brain. The increased screen time of online instruction and the lack of face-to-face interaction have affected many students' mental and physical health. In fact, increased screen time has been linked to anxiety, depression and perceived attention problems. Research studies also have shown that students tend to be extra cautious of their **looks on camera and feel self-conscious or self-critical about how they look on screen :** While when we interact with others in person there are other factors which helps us in understanding of the concepts better. Those supportive

points are tone and pitch of voice, facial expressions, eye contact, body language etc. Without these supportive points, while listening simple audio lectures leads to more pressure on the brain to understand the concept and it leads to mental fatigue.

During the regular classes, students are observed by classmates and teachers informally every day. But, in online course, those students often are not seen by fellow students, advisers or others. They are living in unobserved anonymity. In such circumstances, understanding the mental issues of others are difficult.

Mental Health can be benefitted

There is bright side of online education too. There may be some students for whom being at home is more preferable. Particularly in COVID-19 pandemic situation, being at home gives the feeling of safety and reassurance. For some people, being home can be in the temple to feel calm and peace and can be more productive also. While school is a place of gathering of students and forming of friendships, not all social interactions are positive. For other students, virtual classes can also provide an escape from the constant weight of peer pressure.

COVID 19 has changed the life of all human beings including kids and children. Corona pandemic has affected every aspect of human life including children.

It is very natural that eyesight problems will occur on account of long screen time with frequent headaches. Children or any other are not bound to have followed any professional mannerism like taking the bath or sitting etiquettes to attend the classes. Hence there is a strong risk of physical health deterioration because of **poor ergonomics as** now-a-days we are witnessing that children are attending the classes by sitting on sofas or beds which leads to back pain. Also as batch-mates are not meeting physically, there is not organization of sports events or casual play. Moreover, learners are eating junk food at home while learning. These lead to the loss of muscle mass and amalgamation of fat on the body. As learners are not going outside for attending the classes, they are not exposed to sunlight, naturally there can be the deficiency of Calcium and Vitamin D levels of the body. Some more merits and demerits of online education are summarised below:

Advantage of e-learning :-

1. 24*7 Availability (supports anywhere anytime concept)

2. Because of the advancements in the technology innovators are introducing nice simulations, animations, blogs etc which is easing in understanding the complicated concepts.

3. There is a big range of options to students for satisfying their hunger of pursuing knowledge.

4. Learners can join those courses which can go as per their speed. As speed of learning or understanding of different subjects is different. Courses are available with various flavours as basic, intermediate and master levels.

5. The learners can get faster feedbacks and solutions to their queries.

Disadvantages of E-learning

1. The human contact is lagging.

2. Disinterested students can be lagging.

3. The developing countries have several issues of networks, cheaper bandwidth, availability of working infrastructures, power etc.

4. Traditional courses are difficult to teach through online-education.

Conclusion :- One should not be orthodox in thinking that remote teaching does not measure up to face-to-face teaching. This thinking is principle obstacle to the transition to the online classroom. Some teachers cannot accept the teaching without artifacts such as blackboards, or face-to-face interactions. One has to accept this abrupt change particularly in the pandemic situation like COVID. While there are several advantages of online education, it may gift us bad health. With the virtue of some regular healthy habits of properly maintaining physical postures, atmosphere of reading room and taking physical exercises, we can reduce the risk of online education to the mental and physical health.

References

1. *G.Z., Smith L., Alvarez Jimenez M., Gleeson J., Vancampfort D., Armitage C.J., Sarris J. The "online brain": how the internet may be changing our cognition. World Psychiatr. 2019; 18(2):119–129. doi: 10.1002/wps.20617. [Google Scholar]*

2. *Li C., Lalani F. World Economic Forum; 2020. The COVID-19 Pandemic Has Changed Education Forever. This Is How. URL https://www.weforum.org/agenda/2020/04/coronavirus-education-global- COVID -online-digital-learning/ (Accessed 30.05.21) [Google Scholar]*

3. *Takeuchi H., Taki Y., Asano K., Asano M., Sassa Y., Yokota S., Kotozaki Y., Nouchi R., Kawashima R. Impact of frequency of internet use on development of brain structures and verbal intelligence: longitudinal analyses. Hum. Brain Mapp. 2018;39(11):4471–4479. doi: 10.1002/ hbm.24286. [PMC free article] [PubMed] [CrossRef] [Google Scholar].*

4. *World Health Organization. 2019. To Grow up Healthy, Children Need to Sit Less and Play More. URL https:// www.who.int/news-room/detail/24-04-2019-to-grow-up- healthy-children-need-to-sit-less-and-play-more (Accessed 7.7.20. [Google Scholar]*

5. *Bryant, J., & Bates, A. J. (2015). Creating a constructivist online instructional environment. TechTrends, 59(2), 17- 22.*

6. *Allen, I. E., & Seaman, J. (2013). Changing course: Ten years of tracing online education in the United States. San Francisco, CA: Babson Survey Research Group and Quahog Research Group LLC.*

7. *Macfadyen, L., & Dawson, S. (2012). Numbers Are Not Enough. Why e-Learning Analytics Failed to Inform an Institutional Strategic Plan. Educational Technology and Society, 15(3), 149-163.*

8. *Sanz, I., Sáinz, J., & Capilla, A. (2020). Effects of the coronavirus crisis on education. Madrid: Organization of Ibero-American States for Education, Science and Culture (OEI).*

9. *Yen, S. C., Lo, Y., Lee, A., & Enriquez, J. (2018). Learning online, offline, and in-between: comparing student academic outcomes and course satisfaction in face-to-face, online, and blended teaching modalities. Education and Information Technologies, 23(5), 2141-2153.*