POSTGRADUATE STUDENTS' PERCEPTIONS AND ENGAGEMENT WITH E-LEARNING: AN EXPLORATORY STUDY AT THE UNIVERSITY OF MUMBAI

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Abstract: - *This paper aims to understand the views and perceptions of postgraduate students on e-learning. The concept of E-learning has been occupying the academic life of students' communities across the globe. Though E-learning was initiated some decades ago, we have witnessed that its use has significantly accelerated since the last couple of years during the pandemic. This is an empirical study that has surveyed the post graduate students about their perceptions of e-learning. A structured web questionnaire was prepared to collect the data from the participants. The snowball sampling technique was used to collect the response. The questionnaire was circulated to the post graduate students of autonomous colleges in Mumbai and three hundred and fifty nine (359) students responded to it. The study finds that the perception of students about e-learning is positive. At present, the engagement with MOOCs and LMS is less, however the students are willing to use them in future. Another major finding is that the quality of e-learning is questionable and the institutions need to address this issue. The study also reveals that blended learning is the most practical alternative that attempts to draw the best of both the worlds. There have been many studies conducted throughout the world and India on e-learning. Most of the research studies which are conducted in India are on students' perspectives towards E-learning. But this research study conducted among the postgraduate students from the colleges is unique and latest during the COVID pandemic. This is an original research and primary data has been collected for the analysis.*

Keywords: MOOCs, e-learning, web-based learning, electronic learning, online learning, blended learning

Introduction

Learning has been the key element of any civilization. Whichever might be an era, the process of learning was always existing in the society, whether formally or informally. Over the ages, the formal education system across the globe has undergone various changes. Major revolutions in the field of education started occurring when computers and information communication technologies (ICT) entered in some parts of the globe during the decade of 1960s. In recent years, ICT has not just set in the education system as an important component of it, but it started changing or revamping the overall way of teaching and learning with its new set of pedagogies and new media of instruction.

Consequently, the teaching – learning that was restricted to the classroom environment has been revolutionized drastically and concepts like e-learning, virtual learning, blended learning, and flipped classrooms started emerging. We are learning new technologies and making optimal utilisation of technological innovations in teaching and learning. The current generation of learners considered as digital natives are readily adopting new technologies in their life, including their education at various levels.

E-learning unites two concepts: Learning and Technology. Learning is the cognitive process while technology is the enabler to carry out this process effectively. This implies that e-learning is the method of learning that attempts to make the process of learning more effective by the use of communication technology. "E-learning will fail if we merely add on to repackage our current dominant approaches and be clear as to what type of learning experience we wish to design (Garrison, 2011)". Hence e-learning could not be considered mere change in the medium of instruction. But it is to be understood as the stand alone or independent format of learning that has a potential to bring out more effectiveness and greater impact in the learning process.

E-learning could be either synchronous or asynchronous. Synchronous e-learning is where the learning takes place just in time. The instructor and the learners might be located in different places but are connected to the session at the same time. In asynchronous learning, facilitators and learners may not be located in the same place. Also they are not connected at the same time. This means the concept of e-learning is not confined to geographical boundaries. Also, e-learning could be in various formats like mobile learning, web based learning through podcasts, learning management systems, instant messaging and so on. That means now the concept has developed in various aspects. The prominent amongst them are:

- Online teaching-learning through various Learning Management Systems (LMS)
- Online synchronous teaching-learning through different tools like Zoom, Google Meet, Webex.
- Blended learning: This form attempts to combine online teaching with regular classroom teaching. It tries to integrate online lectures into face to face teaching.
- MOOC is yet another revolutionary, remarkable phase in the field of education in recent times. MOOCs are Massive Online Open Courses offered by various institutions, universities and are facilitated by certain agencies or platforms. The courses offered are free/ open, flexible and with no geographical boundaries.

Literature review

As mentioned earlier, e-learning has become a significant aspect of the whole education system today. Information communication technologies have occupied all the major fields of our lives,

education is no exception. In the last three decades after the advent of internet-based technology, the concept of e-learning started gaining increasing importance. E-learning facilitates greater flexibility in learning as it allows self-paced learning with no geographical boundaries. It is perceived to be very important for life-long learning. Since the last couple of years, e-learning systems have been used as an immediate solution for the shutdown of educational institutions. During the last two years due to the COVID-19 pandemic, we have been witnessing rapid growth in the use of technology in education in terms of distance online learning through various ways and various platforms. Learners, teachers and facilitators worldwide are increasingly using different e-learning media (Adedoyin & Soykan, 2020; Alqahtani & Rajkhan, 2020; Agormedah et al., 2020).

As reported by Stub (2020), prior to the COVID 19 pandemic, e-learning was growing approximately 15.4% yearly in educational institutions around the world without uncertainties. That means the stakeholders of the education system have been; though slowly; understanding the potentials of e-learning. As now the educational institutions have reopened and the institutions have switched back to offline teaching learning, it would be interesting to see how effectively e-learning is getting used and integrated with conventional teaching. Library and information professionals being an integral

part of the education system need to understand this shift in the education system.

New Education Policy 2020 is on its way to bring out radical change in the whole education system in India. In this policy, more emphasis is given to different forms of e-learning. Hence the importance of blended learning, MOOCs are likely to increase in the near future. Various studies published worldwide have identified the skills that are required for life in the 21st century. Due to the emergence of 21st-century skills, educational institutions need to modify teaching styles, which lead to the introduction of blended, flipped, and personalized learning (Calamlam, 2021). This means in the development of 21st century skills, e-learning is considered to be more relevant (Chai et al., 2019; Henriksen et al., 2015; Ilgaz & Gulbahar, 2017).

Goel and Goyal (2020) discuss in detail the high drop-out rate of MOOCs. They point out the reasons for this low retention: student related factors like lack of motivation, lack of time, insufficient background knowledge and skills. Also, there are certain MOOCs related factors identified by them, such as course design aspects, content, lack of interactivity, feeling of isolation, and hidden costs. Other factors include casual enrollments and peer review that are likely to hinder retention. They also suggest certain remedies to reduce this drop-out. They are, evaluation of the quality of course design,

developing interaction among learners, technology training and seeking feedback.

Attempts are being made to address this problem of the high drop-out rate. Several models are being developed that predict the drop-out from MOOCs like Context-aware Feature Interaction Feng et al. (2019), self-training model Goel and Goyal (2020), multiple criteria decision-making method. Gregori et al. (2018) investigate the low rate of completion of MOOCs. They suggest that course designers and teachers should pay special attention to their students during the second quartile of the course (irrespective of its type). Teachers' presence during the course, their interaction with students, and the videos' quality are significant factors for course completion. The study by Perna et al. (2014) reflect on the low completion rate. MOOCs fail to take into account users' enrollment goals. They may include personal enrichment, short term occupational training, transfer to a 4-year college and completion of a certificate or associate degree. A low completion rate also suggests the potential utility of identifying milestones that predict completion.

Almaiah et al., (2020) critical factors affecting the usage of E-learning system during COVID-19 pandemic (1) technological factors, (2) e-learning system quality factors, (3) trust factors, (4) self-efficacy factors and (5) cultural aspects. In addition, the results indicated that there are three main challenges that impede the usage of e-

learning systems, namely, (1) change management issues, (2) e-learning system technical issues and (3) financial support issues.

The discussion held above signifies that e-learning will be here to stay as an essential component of the education system to occupy the lives of learners of the 21st century. So it would be relevant and important to study students' attitudes and perceptions towards e-learning. The review of the literature on e-learning suggests that many studies have been conducted during the last decade on different aspects of e-learning. Since the year 2020, there has been an exponential rise in the number of studies associated with e-learning in the context of pandemic. However, empirical research comprising attitudes and perceptions of e-learning among postgraduate students in the colleges in Mumbai has not been explored so far.

Research design and methodology

Present study is the exploratory research that attempts to study the perceptions of post graduate students on e-learning. Primary data has been collected from the students from post graduate courses in the autonomous colleges in Mumbai. In all, 359 students responded to the web questionnaire which was circulated online. Snowball sampling method was used to collect the sample. Communication with the librarians and teachers of the colleges that conduct post graduate courses was found useful to reach out to the students. After collecting data from the

students it was analyzed and discussed. This discussion is included in the present paper. The study has specific aims and objectives that are listed below:

Research objectives

The following research objectives are framed to conduct the survey study among post graduate students:

1. To comprehend the extent of usage of different e-learning systems.

2. To understand the perceptions and experiences about various e- learning systems.

3. To know the challenges and issues involved in e-learning.

Results and discussions

Respondents' Profile

Among the total respondents, 153 (42.6%) students are from the stream Science/Technology. 114 (31.8%) are from Arts/Humanities/Languages. 92 (25.6%) are from Commerce/Management/Law stream. Considering age group wise classification of the respondents, the majority 150 (41.8%) of the Science/Technology students are between the age group 20-25. Among the age category of 26-30, majority 11 (3.1%) are from Arts/Humanities/Languages. From the age group More than 30 also, a higher number [5 (1.4%)] of students are from Arts/Humanities/Languages.

Table 1: Respondents' age group and stream

Age Group	Stream			Total
	Arts/ Humanities/ Languages	Commerce/ Management/Law	Science/ Technology	
20-25	98 (27.3)	86 (24.0)	150 (41.8)	334(93.0)
26-30	11 (3.1)	5 (1.4)	1 (0.3)	17 (4.7)
30 <	5 (1.4)	1(0.3)	2 (0.6)	8 (2.2)
Total	114 (31.8)	92 (25.6)	153 (42.6)	359(100)

Synchronous or live lecture is asserted to be the most effective way of delivering the lecture as shown in the above pie chart (Figure 1). The frequency of rating for synchronous/live lecture is the highest i.e. 226 (63.0%). According to 116(32.3) students both the types are equally effective. Only pre-recorded lecture is the least preferred type with the frequency 17 (4.7%).

Figure 1: Type of lecture delivery is more effective

According to you, which type of lecture delivery is more effective?

Legend:
- Synchronous/ Live
- Pre recorded lecture
- Both are equally effective

- 32.31%
- 62.95%
- 4.74%
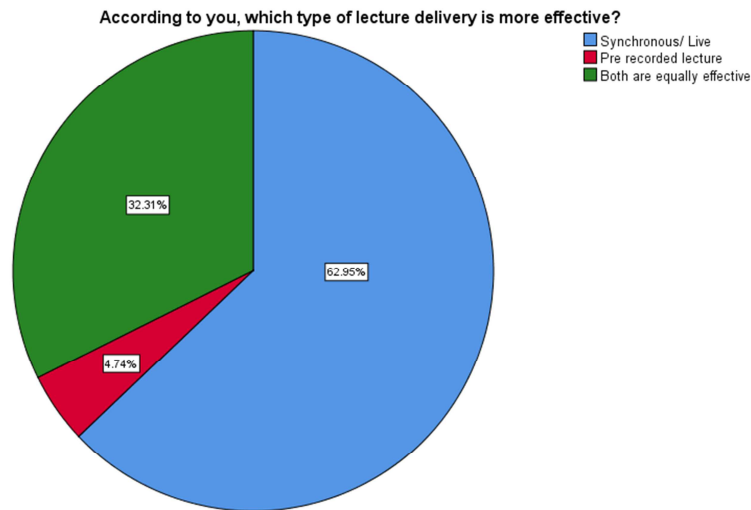
Which of the following teaching methods of online learning appeal to you more?

The result shows that powerpoint presentation (71.03%) and animations/videos (70.75%) are the most appealing methods used in e-learning. Ability to present audio-visual content is the distinguished feature of e-learning. Conventional teaching mainly follows chalk and board methods to explain the concepts. Presentation of concepts and ideas in audio visual form makes them interesting and easy to understand. This is achieved through e-learning. The students have responded that powerpoint lecture presentations and using animations and videos make teaching more appealing.

Figure 2: More appealing teaching methods

Method	Frequency
Plain lecture	87
Powerpoint	255
Whiteboard	179
Animations/Videos	254
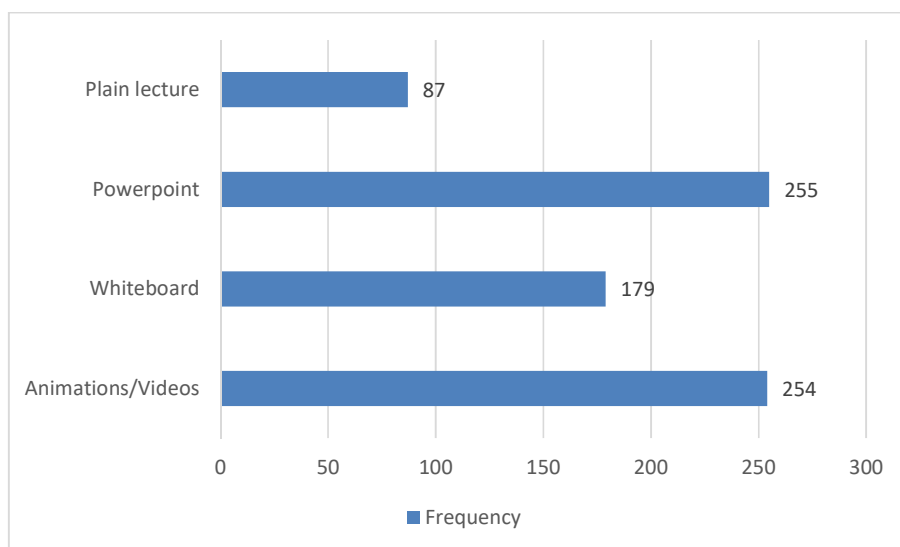
Which of the following pedagogies engage you personally to learn digitally?

While learning digitally various different pedagogies could be adopted as in conventional teaching. The question was asked about which of the methods are more engaging in the case of e-learning. The students opine that, individual assignment method is the most engaging method in e-learning (61.28%) Thereafter, lecture based learning and project based learning are equally engaging (57.10%). Small group work (upto 5 students) is more engaging (37.04%). Large group work (upto 10 or more), Regular tests, Q and A sessions are least appealing methods of learning online.

Figure 3: Pedagogies engage you personally to learn digitally
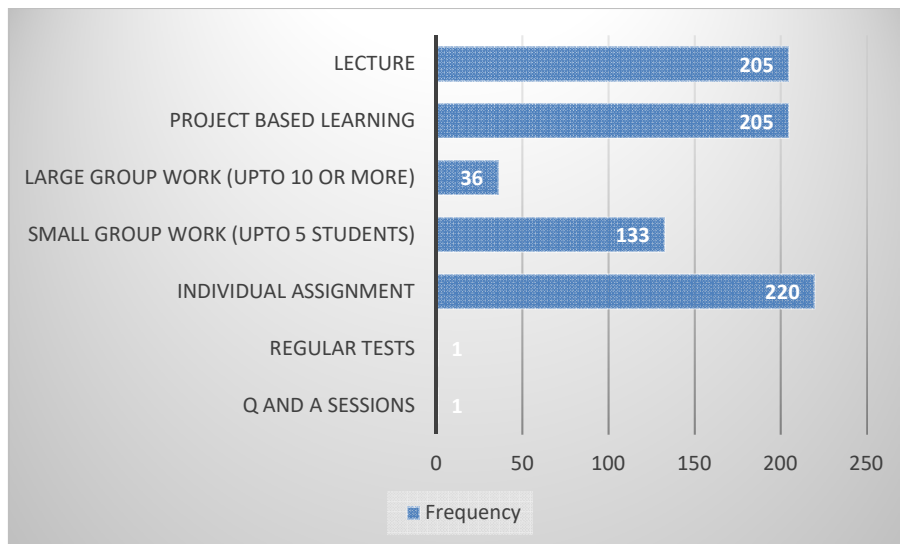
The result reveals that group learning is found to be ineffective in case of e-learning. Lecture methods and project based learning methods are most appealing. This shows that students are not comfortable with group work while learning digitally. This could be because in e-learning the students are located in distant places and they are not able to communicate effectively with their teachers and peers. So individual assignments, project learning and lecture methods are engaging for them.

Innovative teaching methods

Innovation is considered to be an important feature of e-learning. Also, it is one of the skills that is to be nurtured among the learners of the 21st century. 236 (65.7%) of the total respondents assert that they are introduced with the innovative teaching methods while learning on e-learning. Least number of students 41 or 11.4% state that they are not at all introduced with innovative teaching methods. 80 (22.3%) students say

that they are not sure whether the innovative methods have been introduced. 2 respondents from Science/Technology did not respond to this question.

Table 2: Whether innovative methods introduced

While learning on E-learning mode, are you introduced with the innovative teaching methods?	Stream			Total
	Arts/ Humanities/Languages	Commerce/ Management/ Law	Science/ Technology	
Yes	66(57.9)	71(77.2)	99(64.7)	236(65.7)
No	12(10.5)	6(6.5)	23(15.0)	41(11.4)
Don't know	36(31.6)	15(16.3)	29(19)	80(22.3)
Missing	0	0	2(1.3)	2(0.6)
Total	114(100)	92(100)	153(100)	359(100)

This shows that the institutions and the teachers therein are taking initiatives to use innovative methods to some extent while teaching to make the process of e-learning interesting and effective for the learners. However, the some chunk of the sample who either doesn't know whether innovative methods are introduced or no innovative methods are introduced.

Perceptions of e-learning

This question attempts to analyse the perceptions of students regarding e-learning on the basis of different variables. The sub-questions were asked regarding students' perceptions on e-learning on different parameters. Descriptive statistics of those variables are presented below:

The self-efficacy is users' confidence in his or her own capabilities while handling the technology or innovation. It is found that the mean for this attribute is the highest (3.63) with lowest standard deviation while median and mode are the same i.e. 4. It has the lowest negative skewness with the highest kurtosis 1.387. We can infer that post graduate learners are positive or confident about their skills and capacities to use e-learning. The result shown in table 3 attempts to reveal the willingness or motivation to use e-learning. Here the median and mode for this statement are the same i.e. 4. The result is slightly skewed negatively. This result implies that the post graduate students are willing to continue with e-learning even when the institutions reopen physically. The students have experienced some benefits of e-learning and hence they are motivated to use e-learning even when the e-learning is the choice.

The result shown in table 3 depicts the level of comfort that the learners experience while using different e-learning systems. This result indicates that the students of post graduate courses agree with the statement: I

am comfortable with using different e-learning systems. The median and mode of the statement about comfort are the same i.e. 4. One can infer that students are comfortable with the use of e-learning.

Table 3: Students' perceptions of e-learning

| Statements	Mean	Median	Mode	Std. Dev.	Variance	Skewness	Kurtosis
I have necessary skills and capacities for e-learning.	3.63	4.00	4	.988	.976	-1.132	1.387
I am willing to continue with e-learning even after the institutions reopen physically.	3.29	4.00	4	1.307	1.709	-.413	-.933
I am comfortable with using different e-learning systems.	3.38	4.00	4	1.149	1.321	-.636	-.246
I am satisfied with the quality of content delivered through e-learning mode.	3.17	3.00	3	1.098	1.205	-.423	-.398
Facilitating conditions for e-learning are favourable.	3.04	3.00	3	1.266	1.602	-.506	-.818

The result also explains the perception about the quality of content being delivered through e-learning mode. The mean, median and mode for the statement about the quality of content are almost the same i.e. 3. The data is symmetrical. That means the students are neutral about the quality of content being delivered through e-learning. This data implies that, maximum number of students are unable to comment on the quality of the content that was being delivered through e-learning mode. Adequate infrastructure is the necessary requirement that could facilitate effective e-learning. The question was asked whether those infrastructural conditions were favourable.

The result for this statement about infrastructural conditions is symmetrical with the meaning that the students are neutral about the facilitating conditions that are available. This result indicates that perceptions about the available facilitating conditions are neither positive nor negative.

Source of awareness of MOOCs

Total 353 students have responded to the question on the source of awareness of MOOCs. This means almost all the students (98.32%) are aware of the concept of MOOCs. Here figure 4 represents the sources of awareness about MOOCs. Maximum number of the students (45.40%) report that teachers are their source of awareness. 41.50% of the students say that they became aware about MOOCs from the internet. 27.30% of students assert that friends are the source of awareness for them. According to 11.70% of students, they became aware of MOOCs from the librarian. Very few of the students received the idea of MOOCs from their family members.

Figure 4: Source of awareness of MOOCs
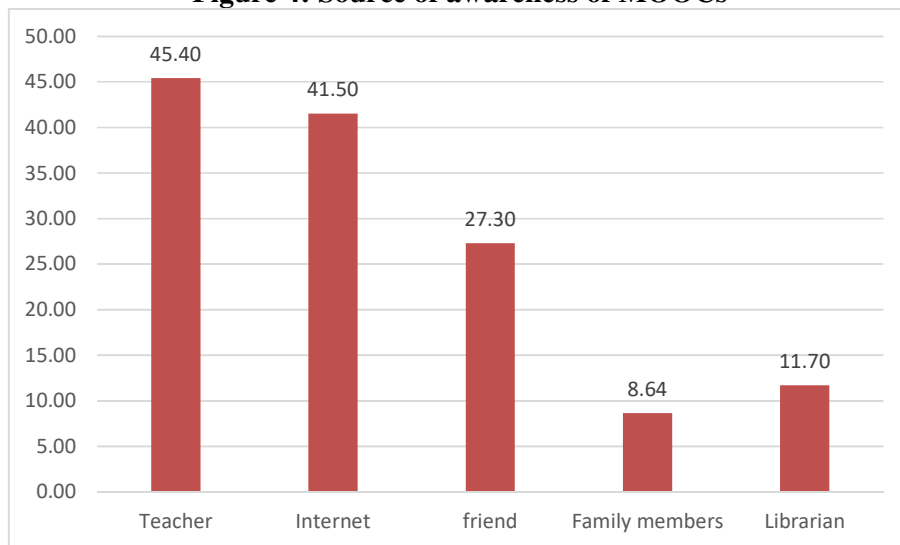
Enrolled for MOOCs

The tables 4 compare the MOOCs registrations currently and previously (during the pandemic). It is observed that registrations were little more during the pandemic. In all 52 students are enrolled currently and 113 students were registered to MOOCs in the past. This shows that the students were participating in MOOCs during the pandemic to some extent. Apart from their regular e-learning during pandemic, they were engaged in MOOCs by choice. However, the overall number of students pursuing MOOCs is very low.

Table 4: MOOCs enrollment

Science/Technology		Arts/Humanities/Languages		Commerce/Management/Law	
Currently	During the pandemic	Currently	During the pandemic	Currently	During the pandemic
18(5.0)	51(14.3)	22(6.1)	39(11.0)	12(3.3)	23(6.5)

The students were asked whether they could complete the course they registered for. The research finding shows that only 89 students completed all the MOOCs they enrolled for. 30 students could complete only some of them. That means very few students completed the MOOCs they enrolled for. While it was revealed from the result that initially the registration for MOOCs is less. Moreover, the majority of the students who enrolled for MOOCs could not complete them. So it is necessary to understand the reasons for non- completion.

The reasons for not completing MOOCs

It is found that the response to this question is very limited. Only 169 students responded to this question. 102 (60.36%) students assert that there is a lack of motivation to complete the course. It is observed from the data that this is the most prominent reason for non-completion of MOOCs. Other reasons are ineffective peer to peer interaction (22.49%), ineffective teacher learner interaction (17.75%), non-useful content (18.93%), ineffective delivery (13.61%), and others (8.88%).

Figure 5: Reasons for MOOCs drop-out
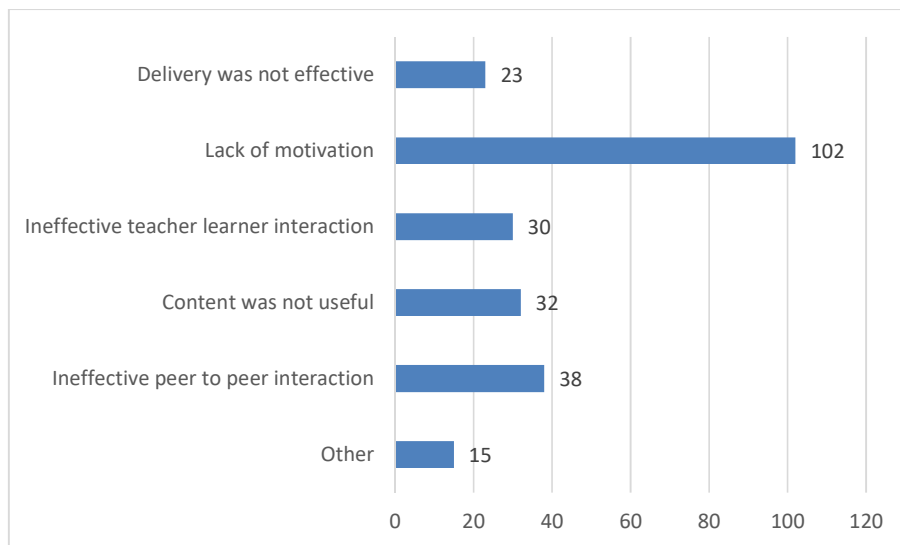
Currently very less number of students are using the MOOCs. Also the drop-out rate is high among the students. The main reason behind not completing the course is the lack of motivation as revealed in the previous question. However, the students' attitude towards MOOCs is favorable as they are willing to pursue MOOCs in future due to its varied features as presented in the above table. 201(55.99%) of the students are considering MOOCs for better career prospects. The students also wish to choose the MOOCs because the MOOCs provide innovative topics that are not usually covered in regular curriculum

(198/55.15%). Large numbers of MOOCs are facilitated by universities across the globe. Hence they include various innovative topics that are not covered in regular curriculum in the colleges in Mumbai. These MOOCs help satisfy the intellectual curiosity of the learners.

Users are getting attracted towards MOOCs due to one more significant reason. 188(52.37%) students say that it offers a great amount of flexibility in terms of self -paced learning, no geographical limits. Some colleges are offering extra credits to the students on completing MOOCs. So that is one of the major driving forces to pursue MOOCs for 201(35.65%) students. Considering the increasing interest for MOOCs among the students, it is necessary to see the perceptions that they have towards MOOCs.

To what extent has e-learning enhanced your skills?

This is a very pertinent question in the context of e-learning considering its relevance in the future. Some of the previous publications have discussed the skill sets that are relevant to living in the 21st century. So it would be important whether e-learning is capable of instilling those skills among the learners. So the set of questions describe whether e-learning has enhanced those skills. Different skills have been identified by certain previous studies on 21st century learning. The researchers have attempted to understand students' perceptions on e-learning with reference to those skills. These skills have been noted as very significant and important for the learners in the 21st century. Education systems across the globe are striving to imbibe those skills among the learners to help them sustain and succeed for future challenges. The world is changing rapidly and it demands learning to acquire new skills, require the learners to adapt to new situations in life and get ready for the unknown challenges. Hence it is important and relevant to see how e-learning is helping the learners to enhance those skills. The question was prepared considering these variables and checking whether the students think that they are able to enhance 21st century skills with the help of e-learning.

Critical thinking is the ability to understand the situation critically and attempt to find the solution. The mean, median and mode for this statement is 3.72, 4 and 4 respectively. The students were asked whether e-learning enables creativity and innovation among them. Students say that e-learning enhances creativity and innovation to a reasonable extent. It is important to note that the responses for these questions are divided into only four categories i.e. not at all, to a little extent, to reasonable extent and to great extent. The mean, median and mode for this variable is 3.59, 4 and 4 respectively. The students agree that they could enhance collaboration with the help of e-learning. The mean, median and mode for this skill is 3.84, 4 and 4. The mean, median and mode for the communication skill are 3.91, 4 and 4. Information literacy is one of the most important skills while learning in a digital environment. The students need to be aware about how to use the available information rationally. The mean, median and mode for this statement is 3.87, 4.00 and 4 respectively.

Table 5: Students' perceptions on 21st century skills

21st century skills	Mean	Median	Mode	Std. Dev.	Variance	Skewness	Kurtosis
Critical Thinking	3.72	4.00	4	1.025	1.051	-.704	-.066
Creativity and Innovation	3.59	4.00	4	1.238	1.533	-.480	-1.203
Collaboration	3.84	4.00	4	1.016	1.031	-.874	.308
Communication	3.91	4.00	4	1.054	1.112	-.865	.000
Information Literacy	3.87	4.00	4	1.107	1.226	-.782	-.466
Media Literacy	3.81	4.00	4	1.109	1.230	-.695	-.559
Technology Literacy	4.15	4.00	5	1.069	1.143	-1.153	.235
Flexibility and adaptability	4.11	4.00	4	.901	.812	-1.229	1.649
Leadership	3.56	4.00	4	1.119	1.253	-.680	-.053
Initiative	3.64	4.00	4	.987	.975	-.502	.127
Cross cultural and social skill	3.79	4.00	4	1.084	1.175	-.955	.452

Large chunks of information is being received by us from different social media. The students need to know which information to choose and trust. Technology literacy has the highest frequency among all the skill variables here. Students consider that this skill has been enhanced with e-learning. Since the concept of e-learning has emerged, information communication technology is being used at a very large extent. It has the mean, median and mode of 4.15, 4 and 5 which is the highest among all the skills. Alongwith technology literacy, flexibility and adaptability has the mean, median and mode 4.11, 4 and 4. The mean, median and mode for the leadership skill is 3.56, 4 and 4. The data is less skewed. That means the students agree with this statement. The mean is 3.64, median is 4.00 and mode is 4 for the initiative. That means the students agree with this statement. The e-learning gives the opportunity to develop cross-cultural and social skills as it tries to connect teachers and students across the globe. The median and mode for these skills is 4.

The main obstacles in e-learning

The researchers have identified certain challenges or obstacles in e-learning and asked students' opinions on it. According to the postgraduate students, resistance to change, lack of dialogue with the teachers, lack of interaction with peers, lack of self -motivation, lack of self-discipline, lack of technical skills, insufficient flexibility, poor quality of content, teachers/ instructors are not well trained, lack of necessary support from the institution are the obstacles that exist to reasonable extent. Unable to understand certain concepts, Poor internet connection and Social isolation are more intense and they exist to a great extent (Table 6).

Table 6: Descriptive Statistics of obstacles in e-learning

Obstacles	Valid	Mean	Median	Mode	Std. Dev	Variance	Skewness	Kurtosis
Resistance to change	359	3.68	4.00	4	1.057	1.117	-.680	-.302
Lack of dialogue with the teachers	359	3.96	4.00	4	1.006	1.012	-1.389	1.962
Lack of interaction with peers	358	4.05	4.00	4	.996	.992	-1.361	1.793
Unable to understand certain concepts	359	4.00	4.00	5	1.070	1.145	-1.045	.461
Lack of self-motivation	359	3.77	4.00	4	1.098	1.205	-.876	.399
Lack of self discipline	359	3.86	4.00	4	1.093	1.195	-1.122	.848
Poor internet connection	359	4.21	5.00	5	1.011	1.022	-1.380	1.458
Lack of technical skills	359	3.47	4.00	4	1.216	1.479	-.340	-1.081
Insufficient flexibility	359	3.54	4.00	4	1.037	1.076	-.667	.237
Poor quality of content	359	3.42	4.00	4	1.205	1.451	-.468	-.815
Teachers/ instructors are not well trained	359	3.68	4.00	4	1.273	1.622	-.837	-.282
Social isolation	359	4.12	4.00	5	1.030	1.061	-1.198	.970
Lack of necessary support from the institution	359	3.86	4.00	4	1.166	1.359	-1.088	.472

Major findings and discussions

Synchronous type of e-learning is more appealing to the students. In this method, students could interact with the teachers and peers directly and seek clarity on the topics. Use of Powerpoint presentation and audio-visual learning resources is the prominent feature of e-learning. Students are finding these methods more effective. The institutions and the teachers are keen about using different innovative methods for e-learning. That means the teachers have consciously adopted e-learning and they are trying new methods to make e-learning effective. However, in some places, teachers are not using any new methods for e-learning or students are not sure about the use of those methods.

While analysing students' perception on the basis of the criteria such as self- efficiency, willingness, comfort, quality of content and infrastructural conditions, it is found that self-efficacy, willingness and comfort are the most important criteria as identified by the students. The students have a positive perception about these attributes. The students are neutral about the satisfaction on the quality of content and the availability of facilitating conditions. Engagement with MOOCs is very low. It was little higher during the pandemic but overall very few students are participating in MOOCs. However, the students are willing to use MOOCs in the future with different intentions: MOOCs offer better career prospects, MOOCs provide innovative topics that are not usually covered in the regular curriculum.

It offers a great amount of flexibility in terms of self -paced learning with no geographical limitations. MOOCs help getting extra credits.

The study finds that the dropout rate in MOOCs is very high and the most prominent reason is the lack of motivation to complete the course. Students have positive and favourable perceptions on MOOCs. The students agree on these statements: Using MOOCS will help me in the long run, Using MOOS will contribute to my personal success in the future. I believe using MOOCs will improve the learning process. I believe MOOCs would provide the opportunity for life-long learning. I have enough resources to do courses on MOOCs. I have the necessary knowledge to use MOOCs. I easily get assistance from others when I face difficulties accessing MOOCs. I find MOOCs courses much more entertaining to accomplish. The students have neutral opinions about the statement: Opinions and ideas about MOOCs that come from others may encourage or discourage me and Doing courses on MOOCs make me feel weariness. Very few institutions are taking concrete efforts to encourage MOOCs.

LMS is being used at only some places. Majority of the institutions are not yet implementing LMS. While analysing the overall advantages of e-Learning as perceived by the students, it was found that the flexibility that e-learning could offer is the most appealing feature. The learners are also getting attracted towards the feature of

effective time management that e-learning facilitates. However, the quality of content is found to be the issue worth addressing. Libraries are seen to be effectively contributing to the overall e-Learning experience at many places as responded by the students. Libraries are playing active roles in overall e-Learning initiatives at the institutions.

Conclusions and suggestions

Overall perception about e-learning is positive. The students have been experiencing several advantages of e-learning and they are keen on continuing with e-learning. Though all forms of e-learning are explored fully, engagement with MOOCs is less, use of LMS is limited to very few institutions, the students are finding it effective for their learning. Quality of e-learning systems and the content offered is the serious issue that needs attention from the academics. While gaining the benefits of technology, the quality of learning should not be compromised. E-learning is not perceived to be enjoyable for the students. Further research is needed to find whether the quality is associated with enjoyment in learning.

More detailed study is required on e-learning in the context of developing 21st century skills that are highly essential for the learners. Libraries are willing and prepared for the new role in the e-learning scenario. They are contributing actively to enhance e-learning experience. The institutions should take steps to integrate e-learning along with the regular classroom learning as blended

learning is perceived to be the most viable solution. More focus is needed on encouraging participation in MOOCs and implementing LMS in the respective institutions. Concrete policies on e-learning are extremely necessary to gain maximum benefits of technologies. On the background of emerging New Education Policy, e-learning would have increasing importance for which institutions need to stay prepared for its impactful penetration.

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