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Analysis of online teaching & learning pedagogy & its impact on the learning & development of students

**Prof. Jae Jogalekar**  
Sandip University, Nashik  
Email: himajogalekar7@gmail.com

**Prof. Anup Jadhav**  
Sandip University, Nashik  
Email: janup1992@gmail.com

**Prof. Nirja Upadhey**  
Sandip University, Nashik  
Email: nirja.cu@gmail.com

**Abstract**---The curse of Pandemic, Covid-19 has spread all round the globe & there has been a drastic change in the major sectors of markets. One of them which has been impacted but cannot be shut down forever is the Education sector. Gaining education and enhancing skills is the prime role in every human’s life. Similarly, delivering the education is the role of teacher/professors job. This paper will speak on the same concern on how the teaching and learning pedagogy has been changed during the era of covid-19 pandemic & how it has impacted (mainly adversely) on the lives of humans, especially the one’s who are in the phase of teaching and learning. This research paper shall include all the observations, analysis and the conclusions made on the basis of a survey taken on an online mode.

**Keywords**---learning & development, teaching, pedagogy, education, skills.

**Introduction**

Due to Covid-19 Pandemic, all the countries on the globe had been locked down. Even as on today, some activities are been performed remotely. The ‘work from home’ culture is much more in practice than ever before. This impacted not only on Industrial sectors but also on the education sector as well. Schools, colleges and institutes being the prime platform for mass gatherings of hordes, had also
been operating remotely. This gave rise to the maximum usage of online teaching platforms like Zoom and Google Meet. There is no doubt that the technological advancements were been done considering the presentation skills, data collection and faster delivery of sessions. The enabling of recording meetings, sessions, webinars was a boon. Also, people could connect beyond the seas, just on one click. Students could learn sitting at their homes and also, the teachers could teach from home, increasing the convenience levels to the maximum. However, this, also had many adverse effects on the learning & development of students if we consider the second side of the coin too.

Many factors like Psychological, Social, Economical, Physical were been affected due to Online Learning process. This paper will give a glance on all these factors by analyzing exactly how and why do these factors get impacted. A survey was been taken to study and analyze the impact of online teaching and learning pedagogy on students.

**Objectives**

1. To study the perceptions of students as well as professors about the online teaching & Learning Pedagogy.
2. To analyze the Impacts of online teaching & Learning Pedagogy on the students.

**Hypothesis**

The Online Teaching and Learning Pedagogy has a few merits but also consists of some adverse effects on the teaching & learning pedagogy.

**Methodology**

1. The research paperis an analytical paper which is based on the survey conducted with a sample size of 5007 respondents, amongst which, 35 % are teachers or professors and 65 % are students from different family and societal backgrounds as well as varied age segments . The samples are collected through a Random Sampling method from six cities in India namely, Pune, Bangalore, Delhi, Mumbai, Nasik & Hyderabad.
2. The survey was been conducted online on a Google form and includes around 15 questions which shall directly , indirectly help in the interpretations and conclusions. The link of the questionnaire was shared on social medias like Linked in, Facebook groups, Whatsapp, and Instagram groups to reach the maximum number of respondents and enthusiasts who wish to respond.
3. The paper includes both, primary as well as the secondary data which is utilized in finding out the conclusions of this research.

**Determinants in student’s personality that are majorly impacted by the changed teaching & learning pedagogy**

- The Basic Quality of Knowledge and Skills:
  If we observe, the sessions conducted online are from a distant mode. Most of the times, there are limitations to the time span of the sessions, inability to
supervise the students well, distance barriers, psychological barriers and also connectivity problems due to network or technical issues. This leads to barriers in delivery of knowledge as well. As students need to focus for grasping, the teachers too need minimum interruptions while the session delivery. The skills that are incorporated by physical demonstrations and in offline sessions like body language and hygiene cannot be incorporated online. It is observed that the quality of knowledge delivered offline and online has many variations. Probably the human factor which initiates a touch of emotions in teaching and learning is responsible for the same.

Psychological Determinants
It is very difficult to make out what a person is thinking if there is lack of face to face contact or facial expressions which can be observed and then analyzed if one is happy or annoyed. Similarly, its very difficult to analyze if students understand what they have been taught online or not. This creates a psychological barrier and camouflages the areas where a professor needs to work on. The development of student’s Intelligence Quotient as well as the Emotional Quotient are very difficult to be tracked during the online sessions. Also, online sessions heavily impact on the student-teacher rapport and also hurdles the building of interpersonal relationships between them.

Social Factors
Inheriting the culture (traditions of a specific region or a nation), the peer learning, the mannerism, etc are also some of the values which are been incorporated in students in the institutes. Along with their home/family background, it is the responsibility of the teachers and professors as well to encourage the inheritance of values & ethics in children. Other than the syllabus, there has to be inculcation of discipline. Even at the bachelor’s level, institutions organize soft skills sessions, where they train students how to carry themselves in the society and present themselves as professionals. Such sessions if conducted offline are not as impressive as the one’s which are conducted online. Similarly, the social awareness about the global trends and events, the incorporation of feeling of duty towards the society and social reforms cannot be incorporated effectively through online sessions as compared to the offline ones. The importance of team work, the team building spirit, the cross-cultural give and take cannot be that effectively done online. In Many Indian schools and institutes, there is a practice of celebrating different traditions and occasions from different religions. This builds a sense of multicultural environment between the students which is very difficult if initiated online.

Physical factors
Since nursery to high school and even junior college, institutes include physical training in their curriculum for the physical development of the students. These include warm ups, exercises, yogasanas, meditations and also the different sports activities swimming, basketball, etc. Some institutes also encourage students to participate on a state and national level championships and train them for the same. These trainings can never be given on an online mode. Not only the health and physical fitness trainings, but physical determinants also include the hygiene & sanitation training of the students. This helps them to ensure safety from biological or chemical diseases spread and also inculcates Hygiene habits in them. Physical training also includes setting children’s daily schedule with a balance of physical, social as well as
educational activities for them. All these trainings which are initiated in institutions cannot be done on an online mode of teaching. We now know, that only syllabus and verbal delivery of sessions shall not totally contribute to the learning & development of students. There are innumerable responsibilities that the institutions carry on their level other than the academics.

Economical Factors
One of the most popular and preferred platform for the Industrial Organizations and Companies in marketing for their recruitment are the institutions. Companies look for fresh talent and freshers to join the industry and contribute new ideas and skills to their organization. This is generally referred to as the Campus Placements. When Institutes get locked down, it becomes almost impossible to train the students for practical knowledge. The Industrial visits, Internships etc are also impacted due to online learning pedagogy. A gap is created between the Students’ knowledge and the Industry’s expectations out of a perfect candidate. Also, the placement drives get affected which eventually stagnates the fresh talent growth and thus effects on the economy of Individuals who cater to the National Economic growth. We hardly realize they slow deterioration process of the online teaching and learning pedagogy which can highly impact a Nation’s Growth. This can be stated as youth is backbone of any Nation and if the youth is not totally trained, the contribution of youth (new employees in the markets) will eventually deteriorate, leading to a downfall of the National Economic Growth.

Interpretation

- The sample size of the research survey was 5000 respondents.
- Amongst 5000, 1750 were teachers/professors by profession and 3250 respondents were students.
- A blend of student-teacher responses were taken to initiate views from both the agendas. To ensure an unbiased response, the views of both students as well as the teachers/professors is necessary.

To find out the preference of respondents between online and offline teaching & learning, maximum of the respondents gave their vote of preference for the offline education.
Amongst the 5000 respondents, only 11% gave their vote of preference for online education, whereas 62% of them voted for offline education. 27% of the respondents did not participate in this response, thus can be considered as neutral responses.

The Respondents when asked to choose between the advantages of online teaching and learning Pedagogy, chose the most popular response as ‘Online education can be gained any time, anywhere’. No matter if we are teaching or learning from the very far end of the planet, we can easily connect and gain education online through various means of medias or communication. Technology has given the world a blessing for the same.

Not only the preference and the advantages of Online teaching & Learning Pedagogy can be considered but also, the authenticity is the largest question. This doubt occurs when technology becomes a barrier in the authenticity of performance of students. Many hacks and cons can create this doubt when it comes to conducting student’s exams. The same was been asked in the questionnaire of the survey where the results were quite obvious.
The responses clearly state, the performance of students in the online exams is not ‘totally’ authentic due to barriers in supervision and lack of surveillances as compared to the offline examinations where proctors and students are present in the institute. This adds on to one more cons of the online teaching and learning Pedagogy.

Also the unbiased evaluation can be at a risk where we state the online scores. Though there is technology available for evidences, the Google automated sheets. The plagiarism checks and other procedures may or may not be implemented as they are done in offline evaluations where there are restrictions to the evaluator as well to give unbiased and authentic results.

It is not just the authenticity of results and performance but also the ‘Lethargy’ which is one of the most observed issues in the online pedagogy. Lethargy is the basic human nature which tends one to skip some steps in the standard operating procedure irrespective of the domain. It is not the matter of being student or a professor, Lethargy may be observed by anybody in the sake of laze and lack of surveillance.

The survey also studied the impact of online teaching and learning pedagogy on the student’s attitude. This attitude not only refers to the attitude towards
teaching but also towards sustainable development. As the channelizing of attitude of students will directly –indirectly lead towards their sustainable development, we can consider it has a greater impact on the students overall.

![Impact on student's Attitude, IQ & EQ](image)

The student’s attitude towards education will have an impact on the development of their Intelligence Quotient as well as their Emotional Quotient, leading them to develop into insensitivity towards sincerity. This can be hazardous if we consider it on long run of youth generation. The Overall rating for the online teaching and learning Pedagogy voted by the respondents is not quite surprising if we study the pros and cons in detail.

![Rating for Online Teaching & Learning Pedagogy on scale of 5](image)

Majority of respondents voted 3/5 for the online teaching & Learning Pedagogy which is an average rating, basically a neutral scale.
General Discussion

- The online teaching and learning pedagogy has been on a boom since the last two years of pandemic, though, the introduction of online teaching and learning pedagogy with the world is been done decades ago.
- Since pandemic, almost all the nations had to conduct online education system and this lead to a lot of dependency over online teaching and learning pedagogy which had its own merits and demerits. Humans did adapt to all these new challenges however, it left a few demerits on the teaching pedagogy.
- When the survey was been conducted, we observed that maximum student’s as well as Teacher’s/Professor’s voted for offline teaching pedagogy (teaching and learning in institutions). There were a number of factors noted why these respondents voted for offline teaching and learning pedagogy.
- A few factors amongst them were ‘authenticity in results, quality of education, practical as well as theoretical blend, extra curricular activities that build skills with in students, an education culture which is incorporated, enhanced student’s EQ, IQ and attitude towards education system, eluding lethargy in teaching and learning, etc.
- All these determinants are responsible for being evident that technology must be blended with teaching and learning, however, the touch of personal attention, the human factor, emotions, care and affection with in students and teachers, the development of students in sports, arts, research and other extra curricular, the enhancement and development of teachers and professor in the domain of research and faculty development programs, etc. can never be replaced by 3D technology, online teaching and learning. There will always be the need of institutions, universities, peer learning (in short, offline teaching and learning pedagogy) in order to ensure a balanced and sustainable development of both, teachers as well as students.
- In the circumstances like lockdown or pandemic, there is no doubt human kind shall have to depend on an online platform for the education, however, when the circumstances are normal where offline education can be initiated, we should definitely go for it.
- Certainly, while teaching, we can use technology like audio-visual presentations, specialized laboratories, specialized machinery and equipment’s in case of practical subjects, etc so that we can enhance student’s understanding and knowledge grasping.

Results

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Average Rating for Online Pedagogy</th>
<th>Does it impact the student’s IQ, EQ, Attitude?</th>
<th>Does Online pedagogy promote lethargy?</th>
<th>Authenticity of online performance</th>
<th>Preference between online &amp; offline education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>3/5</td>
<td>Yes: 4500/5000</td>
<td>Yes: 53%</td>
<td>No: 3200/5000</td>
<td>62% Offline</td>
</tr>
<tr>
<td>Result</td>
<td>Online teaching &amp; learning is not totally preferable,</td>
<td>Online pedagogy stagnates students IQ &amp; EQ</td>
<td>Online pedagogy makes learning and teaching</td>
<td>Online performance of students is not totally authentic.</td>
<td>Maximum votes for preference is given to offline education by teachers as well as students</td>
</tr>
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</table>


Conclusions

1. Certainly, there are a few merits and advantages of the online Teaching and Learning Pedagogy. However, there are two sides of every coin. The online teaching and learning pedagogy comes with a few adverse effects as well.

2. Some of the adverse impacts of the online pedagogy are biased performances, lethargy, under-development of IQ & EQ, stagnated sustainable development, lack of cultural and etiquette’s development, thus leading to a challenging future for the whole generation.

3. Online teaching and Learning Pedagogy cannot be totally underrated, however, it can be used in certain planned procedure to avoid the cons. It can be blended with offline teaching and learning and a PEDAGOGY MIX can be created for the lesser adverse impacts.

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