THE EMPIRICAL STUDY ON ONLINE VS OFFLINE EDUCATION DURING AND POST COVID IN INDIA FOR HIGHER EDUCATION

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Abstract:

The Covid-19 pandemic is not limited to a worldwide health crisis but also has rigorous impacts on employment, education, agriculture and many other fields of the world economy. Education sector is also not untouched with these waves. In light of facts education also have significant effect by this pandemic. It shifted entirely online from offline (face to face). Due to this entire education imparting techniques is getting effected. Many technologies have emerged during this phase. Before COVID-19, there was a high expansion and acceptance of technology/ online in education system, with global investments of US $18.66 billion in 2019, estimated to reach $350 billion by 2025.

But as soon as epidemic effects are little controlled many universities are shifting to again offline mode from online mode. AICTE have so many schemes for online studies promotion in India especially in rural areas. Online as well as offline both mode of education is showing great momentum in current scenario, which will have significant effect in future also.

As observed lots components have emerged in this situational change environment. Keeping this as center of this research study is conducted to design effective teaching-learning system with component of offline and online both mode of education. Major objectives are to identify the various dimensions associated with e-education (online) and face-to-face education (offline education) with teachers and students' perspective, to outline the factors connected with online and offline education, to conduct the comparative study of online and offline education in higher education and to formulate the high-quality delivery service framework for education in higher education.

Self-designed questionnaire was distributed and collected from 43 professional courses teachers having experience of 5 to 30 years. And 247 students of professional courses (MBA, Law and Engineering). On the basis of critical and creative reading and observation 14 factors were identified and incorporated in questionnaire for research study and measurement done on 5point Likerth Scale. The percentile method is implemented for analysis of data. Effective teaching-leaning process framework is derived considering import of offline and online important component for fruitful leaning process.

Keywords : Online , Offline Education, Factors, Determinant, Component

Introduction

Indian education system has got admiration from time immemorial. Indian Gurukul system was back born of Indians' moral and characters. The Gurukuls are the traditional residential schools of learning, (resident at - the teacher's house). This purely offline mode of education and very effective in ancient

time. But as time changed new modern techniques in education have emerged. Digitalization of education is very prominent. But due to COVID-19, rapidly education shifted entirely from offline (face-to-face teaching) to online. Due to this entire education imparting techniques is getting effected. Many technologies have emerged during this phase like many communication apps, face detector, google form, assignment submission app. etc. Before COVID-19, there was a high expansion and acceptance of technology in education system, with global investments of US $18.66 billion in 2019, estimated to reach $350 billion by 2025. But as COVID-19 cases reduced, school and colleges started opening in India i.e. shift from complete online to offline mode. This show yet Indian prefer face-to-face education. At the same time in digital era, nothing can be untouched with technical changes or modernization. This have again the attention of research and academicians to explore new teaching-leaning process, which can accommodate both offline and online component results effective results. Even MOOCs have gain lots of attention and attraction from students from last few years. The global Massive Online Open Course (MOOC) market is expected to reach USD 59.63 Billion by 2028, according to a new report by Reports and Data. Easy availability, accessibility, and affordability of MOOC is estimated to stimulate market demand in the forecast period. More demanded by corporates rather than college students. AICTE is investing for rural online professional courses. Many universities have Information Technology Development Budget. As there are demand for MOOCs or executive courses online but in regular colleges for Higher education offline patter are more in demand. So, academicians need to re-design the effective teaching-learning process to blend this online (modern digital technology) and offline (traditional face-to-face teaching) methods.

Objectives

- To identify the various dimensions associated with e-education (online) and face-to-face education (offline education) with teachers and students' perspective.
- To outline the factors connected with online and offline education.
- To conduct the comparative study of online and offline education in higher education.
- To formulate the high-quality delivery service framework for education in higher education.

Conceptual Framework

Offline Education

Offline teaching refers to the traditional classroom teaching, where teachers and students both are physically present at one place i.e., class room in general. The benefits of offline education are face-to-face interaction between both parties leads to more participation and development of emotional connection, even doubt clarification is fast and easy and the examination is conducted on paper under supervision of teachers/ college staffs, so no change of copying and more discipline can be maintained. Major drawback of offline education is teacher-students must present at same place at same time, little monotonous and outdated.

Online Education

Online teaching refers to virtual platform to impart the knowledge to learners. In this virtual platform internet is prominent component. It consists of Live lectures, video tutorials, presentations and texts.

Assignments are submitted online portals or apps. The prime aim is to distribute knowledge to students and allow them to learn at their own pace and convenience. Most of these platforms are free of cost.

The main advantages of online education are education available anytime, anywhere (24 by 7), technical skills of learners are utilized and study continues without any pressure. Every coin have two face some of disadvantages of online education are impersonal, needed self-motivated student and less emotional bonding.

Evolution of Education in India

Education have gone through many changes from ancient time to 2008 crises to New Digital era of 2020. Innovation has become the crucial factor for effective education. Many new dimensions have evolved with time passed. As per research observations and creative reading following determinants of effective education are identified (applicable in both E-Education (Online) And Face-To-Face Education).

1.Student Engagement (Class participation) refers to the degree students are attentive, passionate, involved, optimistic, motivated and interested during learning process. It is related with students perceptions regarding learning environment.

2. Examination pattern refers to the system to be followed to evaluate the students. Evaluation questions can be objective, subjective or mix. Authenticity and transparency of process is essential for this supervision is important component.

3. Library is a collection of all reading materials like books, Journals, maginzes etc. which are conveniently available. As per accessibility it can be   e-library (online) or physical library.

3. Admission process is the procedure to grant the permission to students to enter the university or colleges.

4. Grievances and conflict management is the process resolve dispute between two students, staffs, roommates, local community.

5. Placement and recruitment is the process in which institute facilitates the students to get jobs. The selection process generally consists   pre placement talk, written test, group discussion and interviews.

6.Procurement refers to the act of arranging goods or services for education purpose. When it is online is termed as E-procurement.

7. SIP/Project Management is the on-job-training for certain fixed duration under academic guide and industrial guide. In which intern needs to prepare report of this training and submit to university. The objective is to develop analysis and problem-solving attitude in intern.

6. Outreach Activities refers to the programs organized to involve a huge listeners and to bring knowledge and expertise on a particular topic. It can be workshops, Seminars, conferences, field trip, Industrial visit, etc.

7. Counselling Session refers to the advice which a therapist or other expert gives to someone about a possible solution to particular problem.

8. Continuous monitoring and surveillance is related with classroom management technique. This main purpose is to checking whether activities are going as per plan or corrective measure is required to enhance students learning experience and improve teaching outcome.

9. Practical in Laboratory is Hands-on experience. Practically doing the process which taught in classroom in theory. In higher education it can be role play, simulations activity, laboratory practical.

10. Emotional Connection refers relation between teachers, learners, staffs, academic environment, and with other learners. Academic emotion can be positive or negative. Positive emotion includes enjoyment, pride, calmness, contentment and relief. Negative includes hopelessness, boredom, anxiety, shame, depression, threat, fear and anger

11. Fee Payment refers to paying amount to university/college in return of education service received by learners. It can done electronic payment or physically at bank or college account department.

Research Methodology

Self-designed questionnaire was distributed and collected from 43 professional courses teachers having experience of 5 to 30 years. They have teaching experience of offline as well as online during COVID-19. And 247 students of professional courses (MBA, Law and Engineering). This was collected online through goolge form, what's app and personal visit (in classroom from students) who have both experience offline as well as online teaching. On the basis of critical and creative reading and observation following 12 factors were identified and incorporated in questionnaire for research study and measurement done on 5point Likerth Scale. The percentile method is implemented for analysis of data. The factors are defined and analyzed with its relevance to education (Social factor, Behavioral-Emotional Factors, Technical Factors and Physical Factors).

Analysis, Finding & Discussion

Only online mode is not so efficient for higher education, as students needs external motivation and self-motivation is very little. Even only offline mode is not sufficient as it is outdated and development is required adaptation of new changing environment.
Thus, combination of both online and offline is required as new innovative step for effective teaching-learning process. So Blended Education is the best innovative practice in this new digital era.
Advanced education is getting progressively penetrated by innovation and digitalization. As data analysis shows as per students and teachers perspective students' engagement, Students Enthusiasm, Teachers Passion, Examination Authenticity High, Grievances and conflict management, Placement and recruitment, SIP/Project Management Guidance, Counselling Session, Continuous monitoring and surveillance**,** Practical in Laboratory, feel more emotionally connected to other students and Physical fitness classes are more effective in offline mode.
Examination pattern, e- Library, Admission Process, Fee Payment Process, Assignment Submission and Outreach Activities are very effective in online mode.
Thus, this blended education system can result in most effective teaching-learning outcome in university

and college higher education, where learns are little self-enthusiastic and self-motivated.

Table : 1 : Analysis of Major Eighteen dimensions associated with e-education (online) and face-to-face education (offline education) with teachers and students' perspective

Determinants	Teacher's Perspective		Outcomes	Students' Perspective		Outcomes
	Strongly Agree and Agree in (%)	Strongly Agree and Agree in (%)		Strongly Agree and Agree in (%)	Strongly Agree and Agree in (%)	
	Online	Offline		Online	Offline	
Student Engagement is high (Class participation)	44	78	Better in Offline	32	68	More Attentive in offline
Students Enthusiasm	32	84	Better in Offline	21	62	Easy to Understand
Teachers Passion	54	61		65	69	Both fine
Examination pattern	68	71	Question paper pattern fine in both	47	39	Offline as no supervisor
Examination Authenticity High	25	78	Less in Online as student at remote place	19	73	Less in Offline
e- Library VS Physical Library	69	48	e-Library is more preferable	69	42	e-Library is more preferable
Assignment Submission	74	25	Online Google Classroom preferred (less management and easy to retain)	78	20	Offline as done under supervision
Admission Process	67	62	Both fine	72	10	Online easy, fast & Convenient
Fee Payment Process	74	42	Online as record maintenance easy	74	21	Online as any time any where

Grievances and conflict management	35	76	Offline more effective	21	45	Offline as Face-to-face interaction
Placement and recruitment	34	48	Online more accessible	19	56	Offline better understanding of company and procedure and grooming session
SIP/Project Management Guidance	32	40	Offline as student interaction is prominent	51	20	Easy to get pass in online
Outreach Activities	71	46	Online as overseas resource person can be reached	65	29	Online as global exposure
Counselling Session	65	41	Offline	28	31	All fine
Continuous monitoring and surveillance	30	41	Offline as personal supervision is possible	20	51	Not in online mode only experienced in offline mode
Practical in Laboratory	10	70	Offline	10	79	No interest offline
Feel more emotionally connected to student	31	80	Personal Communication is held	10	71	Friendship is possible offline
Physical fitness classes were effective	21	67	Online more participative	10	72	Not attended online as its very early morning. Offline better
Overall, which teaching method is suitable for this course	Each mixture is required i.e., blended Teaching-learning process.			Offline is interesting and lively.		

in your opinion? If any Suggestions		

Even social, emotional and physical factors are more positive effect in offline teaching-learning process. Technical Factor have important role in both online and offline mode. There is different technology for different mode to make education process effective. For offline mode LCD, internet, smart board, LAN connection, Computer Lab are basic required technology. For online advance technology are required like high-speed internet, Meeting app subscription, face detector, assignment submission apps, attendance recoding apps, results maintenance and communication process etc.

Table : 2 : The comparative outline of factors connected with online and offline education.

S. No	Factors	Factors Framework w.r.t. Education	**Offline** Perspective	Online Perspective
1	Social Factor	It consists family back ground, culture, relationship with friend and response to environment.	Peer Relationship Learning	Impersonal
2	Emotional (Behavioral) Factor	It refers to connection, closeness, familiarity, intimacy and support.	High	Low
3	Technical Factor	It refers to advance and updated tonology for education.	Professional Learning Support Required	High Speed Internet, Technology Required like face detector, Communication app, etc
4	Physical Factor	This is revolving around Physical fitness education.	Involvement is high	Involvement is low

Conclusion

Innovation and digitalization have resulted into paradigm shift in education service delivery process. But its purpose and process need to be defined well and resign as per learners' level of interest, motivation and expected outcome.

During lockdown only online education was feasible way of education. So, all stakeholders had putted lots of efforts to make it operative and effective. Many innovative techniques emerged to existence to make this more systematic and efficient for examples online physical fitness program, online event celebration, online competitions. It was believed this online education is future of Indian Education System.

But as soon Covid cases got controlled and government allowed to open universities and colleges, almost all colleges reopened and more than 50% students reported. The research finding shows students in

higher education are happier to come back to campus for offline education. The learners found offline education more dynamic, enjoyful and meaningful. Thus, concluded that the effectiveness of online education depends upon the intention, interest and self-motivation of learner. It can be classified as MOOC's courses and University courses for higher education (degree and diploma courses). In MOOC's courses leaners are self-motivated, focused and sincere, so easy to achieve learning outcome i.e. specific skill development. Examination is held under supervision in MOOC's as well. But in University higher education courses primary aim is to obtain the degree or diploma. As core motive changes so capacity to receive knowledge and follow attentive learning process changes. Basic aim of teachers in higher education to developing experimental, design, problem-solving and analysis skills, to make students familiar with corporate environment, to developing communication and interpersonal skills and integrating theory and practice by motivating students. Motivation and stimulating students in online education is little difficult, so offline is more preferred in Higher education.

Though offline students are happy but we can't ignore that online education or technological change is future of education and we need to adopt it. The research paper identified ten determinants of education and defined their application benefits and process to implement it effectively in new digital education environment considering online and offline both. As blended education is the best suitable education technique. It incorporates Traditional human factors as prime factor and advance technical support, which will leads to effective teaching-learning delivery system.

The practical implication of the research helps for designing better service deliver process in higher education with blended leaning techniques.

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