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### RESEARCH ARTICLE

#### STUDY ON THE EFFECTIVENESS OF ONLINE EDUCATION AT THE TIME OF COVID-19 PANDEMIC

Shreya Nagpal

PGDM-IB, JIMS, Sector-5, Rohini, New Delhi.

#### Manuscript Info

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Pandemic, Effectiveness, Online Education, Psychological Development, Digital Revolution

#### Abstract

An effective Online education is about an individual's psychological development without actually being present at the place where the knowledge is being delivered. This study has attempted to assess the effectiveness of Online education among college students. The sample consisted of 100 college students from Delhi, Haryana and Punjab, age ranging, 20-25. The tools used for the study consisted of a questionnaire and Microsoft excel. The z-test was used for the purpose of statistical interpretation to assess the effectiveness of the online education.

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#### Introduction:-

While the corona virus pandemic has brought the entire world down on its knees, humanity is still willing to rise up no matter what. One initiative to minimize the loss due to the pandemic is Online education. COVID-19 Pandemic has impelled a digital revolution in the academics. Economic shutdown, isolation from the society and long quarantine period has privileged learners worldwide with ample time to not only focus on their college or school work but to prepare for the entrances. Currently, we possess the required technological advancements to be able to provide education on online platforms. But the question is whether Online education is as effective as face to face transfer of knowledge.

#### Digital Revolution:

This pandemic has definitely pushed countries towards digitalization. According to a research paper, on 18<sup>th</sup> and 20<sup>th</sup> March 2020, Imperial College London conducted the world's first online exam for its 280 six year medical students. The digital open book exam was successfully delivered remotely, and many universities in the UK and worldwide are now likely to follow the Imperial's strategy as a solution for examining students during the COVID-19 pandemic shutdown. According to a student who took this exam, it was a good experience because medical school finals measure a higher level of learning than just remembering information. The tests focused on the student's ability to synthesize information to come up with a management, or interpret complex data or skills.

#### Education providers:

There are mainly three types of people involved in academics and higher education:

Researchers: These are the people writing valuable monographs, grant projects and research papers. They are well equipped with the knowledge of publishing process.

According to a research, most of the researchers are bad at public speaking. Therefore, they refrain from delivering

**Corresponding Author:- Shreya Nagpal**

Address:- PGDM-IB, JIMS, Sector-5, Rohini, New Delhi.

lectures.

Lecturers: According to a research, they are keen of delivering lectures to the students and are extremely proficient at it. They somehow lack time and energy to sit and write for the sake of publishing.

Businessmen: They play an important part in bringing practicality in education. They know the outside scenario well, bringing in a lot of opportunities for the students.

### Literature Review:-

S.NO	YEAR	AUTHOR	OBJECTIVES	RESEARCH METHODOLOGY	FINDINGS
1.	2017	YaseminGulbahar	Putting the participants in learners shoes in order for them to have first hand experience with online learning environment .	Data was collected using an e-learning readiness and expectancy questionnaire, and open-ended questions after the program to measure effectiveness. Statistics was used to analyze the survey data and content analysis for open ended data.	Majority of the participants were ready to attend e-Tuition.
2.	2007	Tim Neumann and Allan Carrington	The case study discusses about the organizational opportunities and challenges experienced in planning and implementing a 'mass collaboration' event.	Evaluation was based on a feedback survey, self-reflection and follow-up interviews.	SAC is a powerful technology to blend the online and face to face learning with large groups. But some changes are required.
3.	2016	Gemma Delicado Puerto, SixtoCubo Delgado	To analyze the success of an e-learning method.	Preliminary step: The field to be studied is defined in this stage, together with the different stages of the design of qualitative research – Field work: Data collection,Analysis.	This study converges the intended teaching innovation in universities with e-learning as agent for educational change. The implementation of online assessment method has been positive.
4.	2018	EleniIlkou	Studying assessments and the different ways a particular problem can be	Combiningthe knowledge graphs with different learning paths,	Presented a vision of a smart learning tool that might support

			solved, new methods for a multi-dimensional classification of assessments to be developed.	enabling the creation of a smart learning tool.	students as well as teachers in their daily life.
5.	2020	AmenaSafwat	Develop learning objects in a highly creative way. Integrate the learning objects, producing two delivery methods: WBT and CBT. <sup>[1][2][3][4][5][6][7][8][9][10]</sup>	Considering change management to be able to train professionals who have no IT background or a culture that prefers traditional systems over automated ones. Measuring training outcomes in respect to user attitudes and feedback towards both training techniques. <sup>[1][2][3][4][5][6][7][8][9][10]</sup>	Results were gathered qualitatively with the support of some empirical data all comparing CBT and WBT delivery methods of the same content developed and published for Egyptian health professionals.
6.	2017	Beau Daniels	To study critiques theories of education that support e-learning	Used a philosophical inquiry approach to show that the increased use of Internet-based Ed Tech has the potential to do more harm than good.	There are several limitations to using philosophical inquiry in addressing the issues. Because the study was not based on empirical data.
7.	2020	Gulbir Singh, Gautam Kumar	To compare traditional learning and electronic learning.	A comparative analysis method was selected to fulfill the purpose of the study. The research data has been collected by various sources and further analyzed by in-depth understanding approach.	It is important to choose e-learning through the use of different technologies for education as well as for daily routine activities.
8.	2007	Teresa Guasch	Analysis of a collaborative writing activity in an online learning environment.	Teacher and students' feedback and their assignments have been analysed.	Within the framework of a collaborative writing assignment in aOnline environment, if feedback is given immediately after the first version

					of the text, it will entail improvements in the quality of the text.
9.	2016	SuneshHettiarachchi	To find out different types of learner centered learning methods	Data collection and analysis	Online learning in the learner centered methodology is the best replacement for teacher centered methodology in classroom learning.
10.	2019	M Pradeep Kumar and P Sahithi	To study Indian Education System: the heads and tails.	By going through different books, journals, magazines and research papers.	Minimizing the issues and focusing on the challenges will make the Indian education lead to achieve top place among world.
11.	2009	N. A. Shukor	Investigating Students' Cognitive Engagement in e-Learning	Students were given a case study 'Portal v/s Website.	Students engagement is very much dependent upon the teacher.
12.	2016	Anna Sun and Xiufang Chen	Review on online education an its effective practice.	To review published studies and research on online teaching .	Social presence is an important component in online education and has a direct impact in many ways.
13.	2016	Michael Stahl Mark Alder	To study learning effectiveness and students' perception in a flexible learning course.	Studentsperception of the new learning design and the learning process was analyzed through an online survey.	Students perception of the FLEX learning design were mainly positive.
14.	2017	Brad Mehlenbacer, KristaHolstein,BrettGordon, Khalil Khammar	Reviewing the research e-learning.	Collected approximately 300 peer reviewed journals for articles published on distance education and instruction and technology broadly defined.	Presented 50 journal names that should be useful to researchers interested in distance education.

15.	2019	HusanUcar	Exploring instructors' perspective on panoptic surveillance through the lens of panopticon concept.	This paper used a case study method to find out the online instructors' views on panoptic surveillance in online learning environment.	The instructors felt like being monitored while teaching online and felt anxious. It is stated that they controlled their behaviors while teaching online, thinking that an authority was watching them.
16.	2019	JakoOlivier, Dorothy Laubscher	To deal with intersection of technology & IK systems within the context of facilitating SDL	A critical literature review with a focus on operationalizing aspects of learning and teaching through technology.	An overview is provided of relevant theoretical concepts of SDL, technology and IK systems as well as an interpretation of these issues in the South African CAPS at the school level.
17.	2019	SandroSerpa, Maria Jose Sa	The Global Crisis Brought about by SARS-CoV-2 and Its Impactson Education	Collection and analysis of publications that focus on this topic.	There are difficulties to face mostly because of digital competences and access to the Internet.
18.	2018	SnejanaDineva	To study he importance of visualization in e-learning courses	Studying and analyzing data from different articles and journals.	Implementing video manuals, students came to the classroom with better confidencethat they have enough knowledge.
19.	2015	Ammar H Safar	To study the students' perspectives of online training at Kuwait University.	Kirkpatrick's classic 4-level evaluation research model was used to assess and determine the reaction-based effectiveness level of students utilizing e-learning as a tool for instructional online training.	The collected data—both the quantitative and qualitative combined and its analyses were cohesive enough and very useful to the extent that it can be utilized for major redesign decisions in

					future.
20.	2020	Mark A. Camilleri, Adriana C. Camilleri	To study The use of Mobile Learning Technologies in Primary Education	This research involved systematic generation of theory from data that relied on the researchers' thinking. The study explored the participants' intrinsic behaviors.	This research provided a critical review of the extant academic literature on the use of mobile apps being used in primary education.
21.	2015	Aleksinac Serbia	To study the importance of educational technology in teaching	Collection and analysis of documents that focus on this topic.	The presence of educational technology is growing in the classrooms.
22.	2019	FairusHamdan, NorazahNordin, Fariza Khalid	understanding the employees' acceptance of online training for managerial finance.	The online questionnaire was used in the survey. The data was analyzed with the help of correlation and regression.	This study shows that the respondent's intention behavior towards MOOC in having a training on the basic Managerial Finance depends on its performance expectancy and social influence.
23.	2020	Kelly Makino	To evaluate study of behavioral competency education methods.	The methodology for this research study was mixed methods to seek a multi-view assessment.	Motivation influence of utility value continue to be an asset for the front line leaders.
24.	2020	Rose Mini Agoes Salim, ShahnazSafitri	To study the Influences of Internal and External Factorson Parenting Style Differences	Data collection through survey and analysis.	Among the four parenting styles dimensions, only the responsiveness showed significant differences.
..25.	2016	RoyaKhalili, NahidShirani	To study effective teaching methods in higher education.	Content analysis study was conducted using purposeful sampling. Semistructured interviews were conducted on ten faculty members.	According to the results of the study, the best approach is the mixed method.

**Objective:-**

1. To analyze the effectiveness of online education at the time of Covid-19 Pandemic.
2. To ascertain the challenges faced in the implication of online education.

**Hypotheses:****H0:**

Online education is not as effective as the face to face education.

The mean effectiveness of the students attending online classes stand to be less than 18. i.e. Population mean < 18

**H1:**

Online education is as effective as the face to face education.

The mean effectiveness of the students attending the online classes is more than 18.

**Methodology:-****Sample:**

The sample consists of 100 college students age ranging 20-25 years.

**Tools:****Questionnaire:**

The questionnaire is a 12-item measure of effectiveness. The effectiveness derived from the online education is disseminated into 7 major scales: Concentration, Participation, Clarity of concepts, Punctuality, Deliver by the teacher, Consistency and Content.

**Research Design And Statistical Analysis:**

The present study is quantitative framework to study the effectiveness of online education among college students. Appropriate experimental control was done and rapport was built with the participants. After clarifying the instructions of the concerned test the questionnaire was administered on the selected sample individually. Z-test was used for the statistical interpretation of the effectiveness of online education.

**Results and Discussion:-**

Following was the result of the survey that was carried out:

z-Test: One Sample for Mean	
	Variable 1
Mean	17.51
Known Variance	55.0201
Observations	100
Hypothesized Mean	18
z	-0.660595167
P(Z<=z) one-tail	0.254435984
z Critical one-tail	1.644853627
P(Z<=z) two-tail	0.508871969
z Critical two-tail	1.959963985

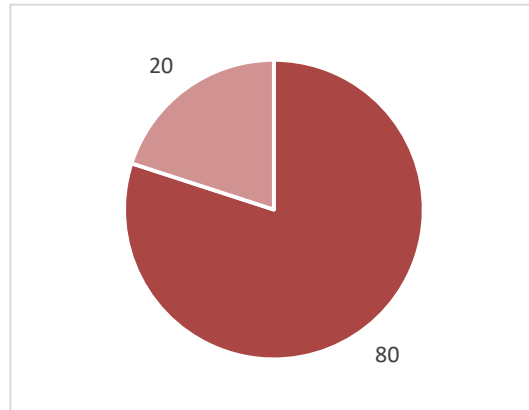
Level of significance=0.05

In the above table, the P-value is greater than the value of alpha i.e.0.05. Thus, the null hypothesis has been accepted. Online education is not as effective as the face to face education and the mean effectiveness of the students attending online classes stand to be less than 18. i.e. Population mean < 18.

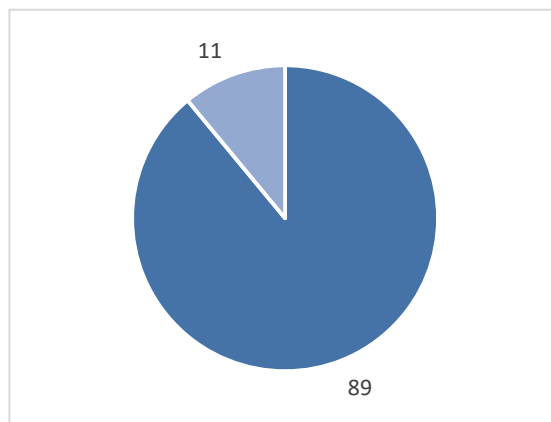
According to the survey, 92% of the respondents would rather choose face to face education than online education.

**Challenges:**

1 80% of the respondents did not possess a good internet connection in order to attend online sessions. There are still many areas in our country where people are surviving without much technological advancements.



2 11% of the respondents lacked technical knowledge required to attend an online session.



### Conclusion:-

Nowadays, online education is viewed by everyone as incomplete and supplementary.

The coronavirus pandemic might change the scenario in weeks to come. The major impact of coronavirus is that it has led to a rapid shift towards digitalization which might have taken years to be improvised. It seems as if our country already had the tools for a big change but was were reluctant to unleash the potential.

### References:-

1. PROBE Team, Public Report on Basic Education in India. New Delhi: Oxford University Press.
2. Paavola, S,&Hakkarainen, (2005). The knowledge creation metaphor–An emergent epistemological approach to learning.
3. Planning, Allocations and Expenditures, Institutions: Studies in Accountability Seminar, 2015, Accountability Initiative.
4. Frank Smith. Insult to intelligence: The bureaucratic invasion of our classrooms.
5. Yasmeen, Summiya (July 1, 2004). Swelling Support for Common Schools, India Today Group.
6. National Policy on Education 1986, Ministry of Human Resource Development, The Government of India
7. Planning, Allocations and Expenditures, Institutions: Studies in Accountability, 2015, Accountability Initiative.
8. Stein, J. G., & Welch, (1997). Rational and psychological approaches to the study of international conflict: Comparative strengths and weaknesses. Decisionmaking on war and peace.
9. World Health Organization. (1994). Life skill education for children and adolescents in schools. In Life skills education for children and adolescents in schools.
10. Liu, & Matthews, R. (2005). Vygotsky's Philosophy: Constructivism and Its Criticisms.
11. Joseph (2008). Equip Yourself With Life Skills. RatnaSagar. <sup>[1]</sup><sub>SEP</sub>
12. Planning, Allocations and Expenditures, Institutions: Studies in Accountability Seminar, Accountability Initiative.