EMERGENCE OF COVID-19: A GOLDEN PATH TO EXPLORE INNOVATIVE PEDAGOGIES IN EDUCATION SECTOR

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ABSTRACT

The outbreak of Covid-19, a deadly virus, has completely transformed one's life and the way of doing work or routine task. Till October 2019, no one could have imagined that the world will ever face a pandemic situation which can have such an intense impact on number of sectors of the Global economy and the people will find themselves really helpless in this regard. The main objective of this paper is to find whether covid-19 acted as a reality shock or it helped in exploring new and innovative pedagogies and tools in the education sector and in what way. This paper also throws some light on the initiatives taken by the Indian government to handle this difficult situation in education sector. At the end it is being discussed how to make this golden path of learning more effective.

Keywords: **Covid-19, Global statistics, Pedagogies in education, Heutagogy**

1.   INTRODUCTION

Outbreak of Covid-19

The outbreak of Covid-19 in China and then in different countries and then in the complete world had led to the condition of lockdown. Different sectors such as education sector, manufacturing sector, and different businesses are greatly affected by the shock waves of this pandemic. Maximum organizations whether private or from public sector had to shut down throughout the world. People are still waiting for the normal conditions, but this pandemic is not getting over in any case **[1].** Although this pandemic has acted as a black swan for everyone but still one cannot deny the fact that it has also paved new ways for innovative

strategies to handle this situation. In the same way it has given new opportunities in online teaching and learning process too **[2-3].**

Impact of Covid-19 at global level

Due to this pandemic situation and financial crisis, whole world has to face a great increase in unemployment rate, mortality rate, decrease in GDP and the economic growth. It can be seen from the Figure 1 that how this pandemic may affect the global economic growth in the long run. So basically, a scenario analysis was performed by Rabobank in order to judge the aftermaths in 2020 and 2021 **[3].**
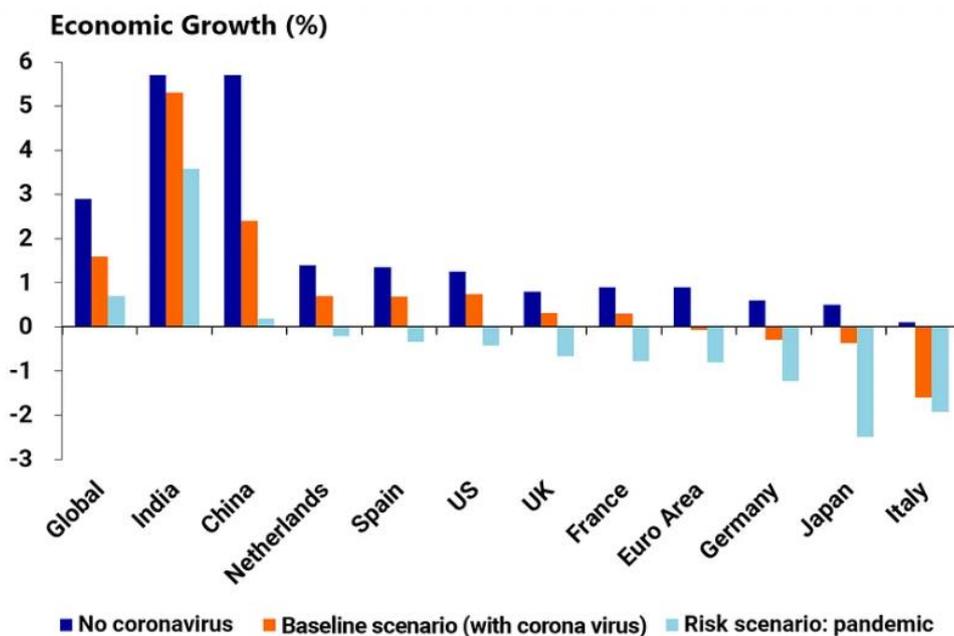

Figure 1: Estimated impact of covid-19 on the World's economy in next few years [3].
(Source: Erken et al, 2020)

The number of restrictions imposed upon the mobility at the national and international levels has greatly affected the tourism, aviation, export and import and different businesses which in turn has affected the GDP rate **[4].** One of the reports by World health organization shows the increase in number of deaths and cases from 11th January to 5th May 2020 as shown in the Figure 2 and Figure 3 below at an alarming rate **[5]:**

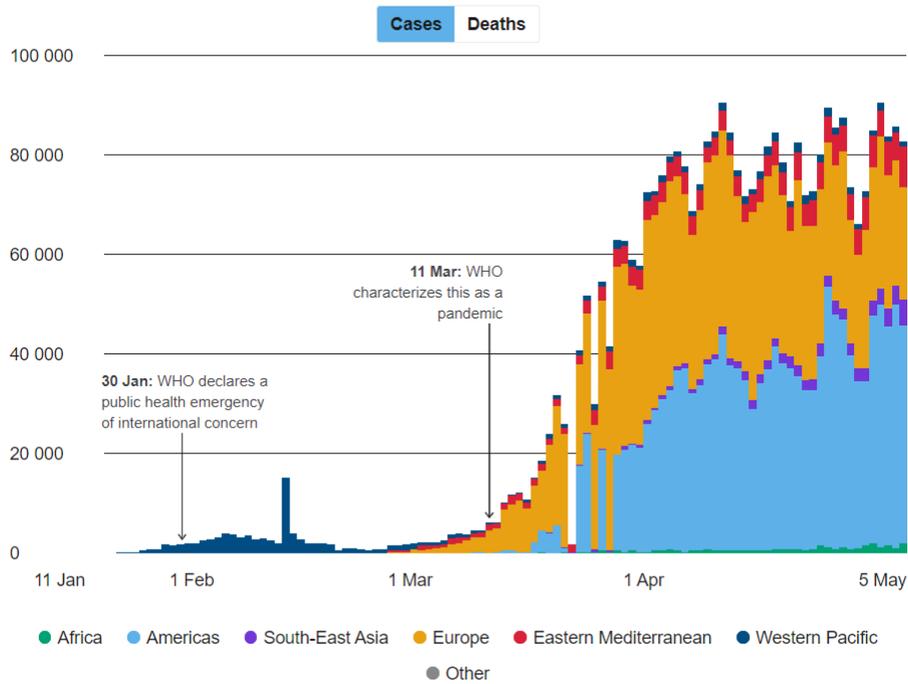## Daily reported cases and deaths of COVID-19

Figure 2: Global Statistics for Covid-19 cases [5].
(Source: World Health Organization, 2021)

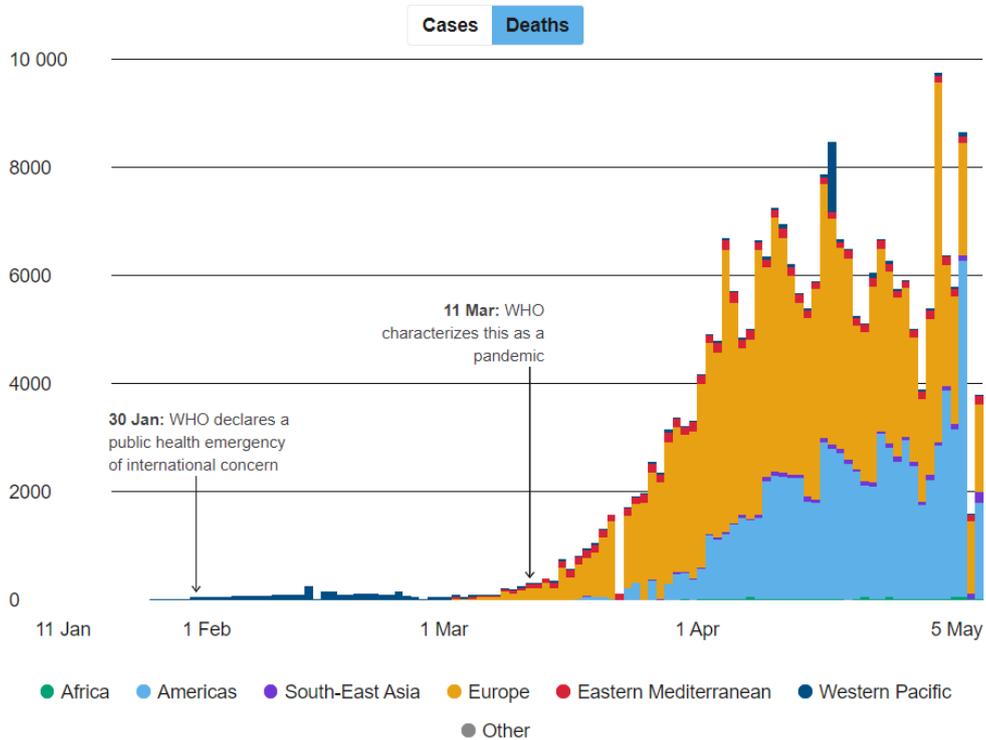## Daily reported cases and deaths of COVID-19

Figure 3: Global Statistics for Death cases due to Covid-19 [5].
(Source: World Health Organization, 2021)

Objective of this study

Main objective of the paper is to study whether covid-19 has acted as an opportunity in exploring different innovative pedagogies in education sector and what are these innovative pedagogies.

2.   RESEARCH METHODOLOGY

A literature review is conducted on the research related to the pandemic and its impact on education sector. This conceptual paper gathers necessary information with the help of secondary data including research papers and online articles.

Plight of education sector since the outbreak of Covid-19

According to one survey conducted by UNESCO, it can be clearly seen in Figure 4 that due to spread of the deadly corona virus, about 1.38 billion students or one can say about 80 percent of the students enrolled at, primary, secondary, higher-secondary along with the tertiary levels were being affected and prevented to visit the educational organizations with their closure at global level **[6].**
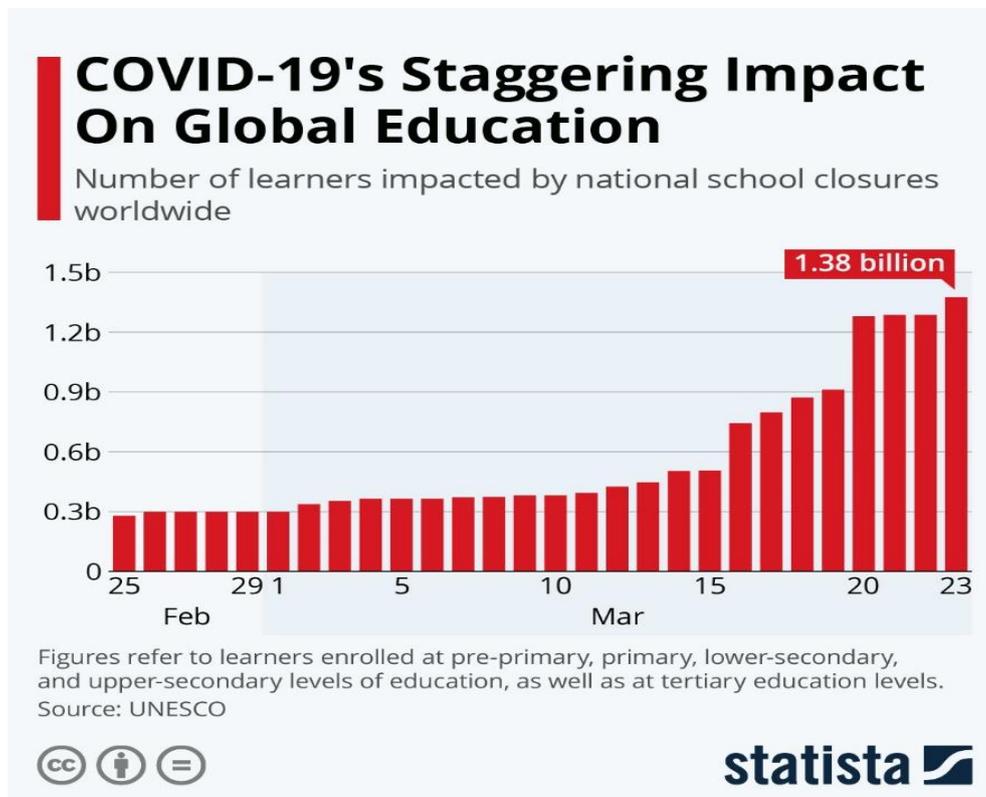
Figure 4: Covid-19 and Education sector [6].
(Source: Carthy, 2020)

In India, many steps were initiated under Indian government in order to provide unique platforms to teachers as well as the students during lockdown, so that their education is not hampered **[7].**

Table I: Immediate Digital initiatives taken by MHRD in Covid-19 [7].

S No.	DIGITAL INITIATIVES	APPLICATION OF THE DIGITAL PLATFORMS	WEBSITE
1.	**E-pathshala**	E-learning application to help the students of 1st to 12th standard in different languages with audio, video lessons along with the free e- content.	http://epathshala.nic.in or http://epathshala.qov.in/
2.	**E-PG pathshala**	e-PG Pathshala platform for the post graduate students to receive the lessens and the e- content	https://epgp.inflibnet.ac.in/
3.	**Diksha**	This portal includes ample e-content for students as well as teachers uploaded by more than 250 teachers in different languages under the guidance of NCERT and CBSE	https://diksha.qov.in or https://seshaqun.qov.in/shaqun
4.	**NROER**	National Repository of Open Educational Resources platform mostly includes the content related to STEM program for the students	http://nroer.qov.in/welcome
5.	**Swayam portal**	Swayam is an online programme initiated by the Indian Government having more than 1900 courses in different areas covering the higher education sector along with a unique feature of credit transfer too along with the certification	https://swayam.gov.in
6.	**Swayam Prabha portal**	Here the television channels provide e-content for 24 hours in a day for school and college students on different subjects with a proper schedule	https://swayamprabha.gov.in/

(Source: Jena, 2020)

The Ministry of HRD (MHRD) opened many new tv channels including radio for continuous learning process. Students as well as the teachers became well versed with different online support systems such as telegram, zoom, google-meet, YouTube, Facebook live, and many more. Some of the digital platforms started by MHRD to help the students and teachers from secondary education and higher education sector can be observed in the Table-I [7].

Indian education system heading towards Atmanirbhar Bharat in 2021

Education sector is the basic building block of an economy, so, it can be said that India is moving towards an Atmanirbhar education system during pandemic. India is already heading towards the Atmanirbhar Bharat by focussing upon the implementation of the New national education policy which includes working upon innovations, research and skill development as discussed in Budget 2021. By these initiatives India has declared that it will not look back towards the old methods of teaching and learning and will adapt itself with the quickly changing environment whether it is working on tablets, cell phones, software, artificial intelligence or any other online platform, for a better and self-dependent future leading to Atmanirbhar India [8].

3. RESULTS AND DISCUSSION

Covid-19- A shock wave or a golden path in exploring innovative pedagogies?

There is no denying fact that if on one hand pandemic acted as a shock wave, on the other hand it has provided ample opportunities of learning and innovating new strategies in each and every field and that too in a very short span of time which in turn has helped in restructuring the foundation of education system at the global level. Some of the negative aspects of Covid in education are on the physical activities, employment opportunities, and unpreparedness on online modes, unavailability of digital platforms or their knowledge [7].

Thus, the education sector has got a chance to choose a golden path towards the competency-based learning and teaching programmes through online platform. In this new normal the education stakeholders have very quickly adapted themselves to the e-leaning and online teaching modes without much affecting the performance of the students moving towards a hybrid system of teaching and learning without any professional training in this regard [9].

Although teaching through case studies, enquiry-based methods, industrial visit, in basket games are the most effective pedagogy methods for teaching and learning where the student

learns under an environment created by the teacher, but this pandemic helped one to explore more effective methods in order to interact with and engage the students **[9-13].**

Some of these methods are:

1. Heutagogy approach

In this method the teacher transforms themselves from a teacher to a mentor who guides the students through active mentoring. Flipped classroom, mini-projects, case-based learning are some of the methods adopted by a teacher as a mentor. In this method the learner is determined themselves to learn new things.

2. Peeragogy

Peeragogy is a combination of two words: 'Peer' and 'gogy' which means self- learning through peer group support. With the time this pedagogy is also becoming very popular.

3. Cybergogy

Cybergogy can be said as a completely new and innovative element in education. It can be understood as learning through the virtual environment by using latest tools and technology. It is considered to be more effective as compared to the classroom learning.

4. Artificial Intelligence

In this pandemic every educator has shifted from physical classroom to the virtual mode for teaching and learning. Artificial intelligence is not a new concept for anyone. Teachers and the students today are well versed with different platforms like Zoom meeting, Microsoft teams, Webex, Google meet for the virtual interactions. A digital teacher has learnt to share e-content with the students through google classrooms or Moodle. Today anyone can opt a course at Udemy or Coursera for self-learning experiences. The pandemic has forced or taught to learn how to use power point, excel, discussion forums, google drives in a more effective manner. Apart from the white board a teacher may use online quizzes, online evaluation methods to analyse the results and online grading system. A lot of companies are working on how to make gaming a part of the education system using artificial intelligence for innovative learning experiences.

5. Hybrid learning model

Hybrid model of teaching combines the residential experience learning with the digital learning. So, it blends the conceptual knowledge with the attitude formation. Reputed Organizations such as Harvard Business School also follows this model as they believe that this model can provide psychologically safe learning environment to the students.

6. A holistic approach

This approach focusses more upon the flexibility in the teaching and learning process as an educator has to deal with the different kind of students at the same time. So, it greatly depends upon a teacher to how to deliver a course lecture effectively keeping in mind the engagement of audience too. What is to be achieved at the end of the lecture greatly matters here.

7. Collaborative learning approach at virtual mode

Although the students know how to use a collaborative learning approach in a physical classroom but it is very difficult to use this approach on an online mode. Different innovative tools can be used by a teacher to use this approach such as live online tests or quizzes, live polling, live discussion, etc.

Are we progressing from 'pedagogy' to Heutagogy'?

Yes, one can say that teaching-learning is progressing from Pedagogy to Heutagogy very fast in the era of covid-19 as there is no other option. In other words, it can be said that Heutagogy is the extension of Pedagogy. In andragogy the instructor or a teacher is completely responsible for designing syllabus, exam, assessment and assignments whereas on the other hand, heutagogy provides autonomy in the hands of the learner, while on the contrary pedagogy is a tool or a method or an approach for teaching. Figure 5 is being adapted from the model given byone of the researcher Canning in 2010, that as we are moving towards heutagogy a learner is getting more and more autonomy with less or no control of the instructor **[14-15].**
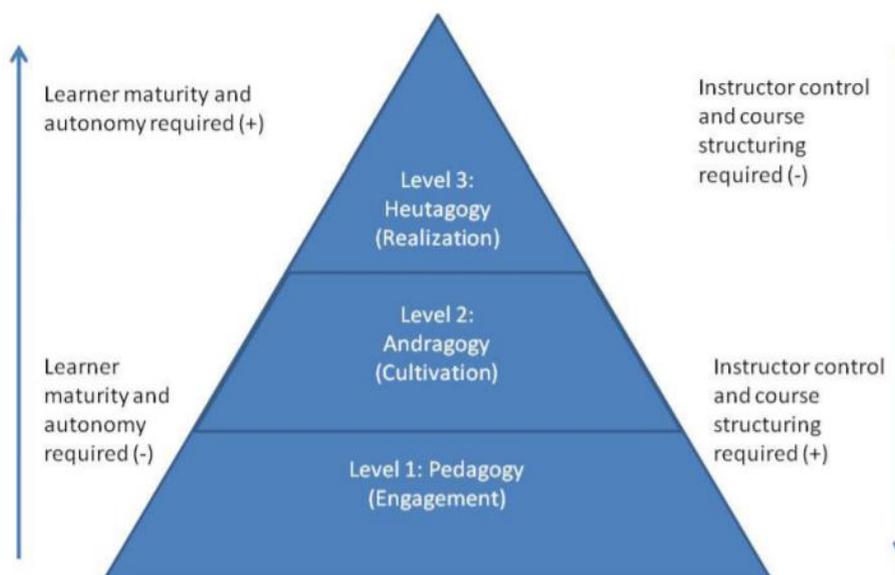

Figure 5: Progression from Pedagogy to Heutagogy [14-15].
(Source: Canning, 2010 and Blaschke, 2012)

4. CONCLUSION

Thus, it can be inferred that the education system in India is based upon 3 basic pillars in pandemic Curriculum i.e., different guidelines by the recognized organizations such as UGC; conduction of online classes through different platforms; and thirdly the online assessment or the grading system. The never-ending pandemic has affected different sectors at the global level. Just like a coin has two sides, in similar way this pandemic too bought a bundle of opportunities along with the hurdles. Looking towards the brighter side of the situation everyone has learnt new strategies to face this situation. Teachers have focussed upon innovative pedagogies in order to engage the student's despite of the various problems like technical issues, unavailability of internet connection, unavailability of electronic devices or no expertise. The 'survival of the fittest' phrase definitely fits here. As soon as one finds themselves in danger they adapt quickly in the changing environment. In the current phase we all are exploring and experimenting on the innovative strategies. In the next phase we hope to master these strategies.

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