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e-Learning Dependency and its Influence during COVID-19 with respect to Higher and Tertiary Education

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ABSTRACT

Learning through electronic media is termed as e-Learning. The concept of e-Learning is also expressed as web-based learning, online learning, internet-based learning, distance learning, distance education, distributed learning, computer-mediated learning, computer-assisted learning, Virtual learning and Blended learning. Education in the present scenario cannot exist without e-Learning. Due to COVID-19 the influence towards e-Learning has become visionary. The study is based on both secondary and primary data collected from students who are studying in colleges and universities. The main purpose of the study is to highlight the initiatives taken towards education and education systems by various organizations and institutions globally, to bring out the evolution and growth of e-Learning from 18th Century to 21st Century and also to understand the influencing factors and their impact of e-Learning and COVID-19 towards Higher or Tertiary Education in this era of Corona Pandemic.

KEYWORDS: e-Learning, COVID-19, Higher Education, Blended Learning, vidco-L, vidco-Learning.

1. INTRODUCTION AND IMPORTANCE

e-Learning is a system where teaching is carried through an electronic medium. It can be applied in the classroom teaching or distance learning or blended learning. e-Learning system is also known as online system of teaching and learning. Since online system is through electronic medium it can be considered as e-Learning. It is common to use e-Learning and Online learning interchangeably. Another method is Blended learning which is used in classroom teaching, which includes both face-to-face and electronic media teaching. Online learning transforms education from instructor-centered to student centered. Traditional classroom learning is more instructor-centered whereas e-Learning is more student centered. Concept of e-Learning has no standard definition. It is a system where learning takes place through electronic media by exchanging information. The concept of e-Learning is also expressed as web-based learning, online learning, internet-based learning, distance learning, distance education, distributed learning, computer-mediated learning, computer-assisted learning, Virtual learning and Blended learning. All these concepts are referred in the same context in different parts of the globe and so e-Learning in this study is to be considered equivalent to all mentioned terms.

Virtual learning – VL[1] is a learning experience that is raised through employing computers and/or the internet both outside and inside the facilities of the educational institution. The instruction more often than not takes place in an online environment. The teaching exercises are carried out online whereby the teacher and learners are physically disconnected in terms of place, time or both. VL can be defined as Distance learning conducted in a virtual learning environment with electronic study content designed for self-paced or live web-conferencing online teaching and tutoring. Higher Education is tertiary education which leads to a grant of an academic degree. Tertiary education is third-level, third-stage or post-

[1]https://www.vedamo.com/knowledge/what-is-virtual-learning/

secondary education. It commences after secondary education. Tertiary education includes schools and colleges whereas Higher education include undergraduate and postgraduate discipline. In some parts of the globe Tertiary education refers to further education or continuing education beyond Secondary education, both meaning same but expressed differently throughout the globe."Unanticipated pandemic"of COVID-19 paved a new path for e-Learning, driving people from all walks to be aware of the concept of e-Learning right from the roadside vendor to the elite classes including the Presidents and the Prime Ministers. Hence the researcher felt there is a need to carry a study.

In this study both Higher and Tertiary Education are taken in the same connotation which includes education in colleges, universities and professional courses, which are post-secondary education.

2. OBJECTIVES

- To study the e-Learning Evolution and growth
- To study the IAU – International Association Universities contributions towards Higher Education during COVID-19
- To study the UNESCO Statistics with respect to affected students / Learners
- To study the online learning awareness of students
- To study the factors which has influence due to COVID-19
- To study the conditions influencing the effectiveness of online learning
- To study the overall impact of Education due to COVID-19

3. MATERIALS AND METHODS

Scope: This study is carried from mid of May 2020 to mid of July 2020 for a period of 02 months.

Method: It is both Descriptive and Analytical in nature. The literature review section concentrates on various other studies and reports as such making this study Descriptive followed by the discussion and results section which has two segments, segment 1 with authentic secondary source and segment 2 with primary source of data which makes the study analytical. Hence the study becomes a full-fledged DA – Descriptive Analytical Study.

Data Collection: Secondary and Primary data forms part of the study. Literature analysis is based on secondary data and discussion and results are based on both secondary and primary data. Primary data is collected through survey method with a structured closed ended questionnaire circulated through e-mail

Limitations : Any subjectivity on the secondary sources and biased opinion given by the respondents may reflect on the study. Since this study is carried collecting data from mid of May2020 to mid of July 2020 for a period of 02 months, the results may be different for prior and subsequent periods.

Sample: Respondents for the study are the Students of Higher and Tertiary education. A total of 246 respondents participated in the study who belong to India, Botswana, Namibia, Zimbabwe, Kenya and Afghanistan, grouped as Indians, Africans and Other nationals. The demographic sample distribution is clearly presented under discussion and results.

Analysis: No Statistical tool or software is utilized for this study. Simple percentage method of analysis which is expressed in the form of table and graph are applied for the primary data as the author envisaged that it can be easily interpreted and understood by a novice.

4. LITERATURE REVIEW

4.1. e-Learning Evolution and Sketch of Events

Table 01: Evolution and History

YEAR	SKETCH OF EVENTS
18th Century	
1728	Caleb Philipps, Professor of Shorthand, published an advertisement in the Boston Gazette offering teaching materials and tutorials
19th Century	
Concept of e-Learningdevelopment	
1840	Isaac Pitman taught his students shorthand through Correspondence. As a qualified teacher he used "Mail" for assignment with his students.
20th Century	
Introduction of Computer, e-Learning tools and expansion of delivery methods	
1924	Prof. Sidney Pressey, Ohio State University, Invented the First Testing Machine. Allowed students to test themselves. This was the first gadget in electronic learning
1954	Prof. BF Skinner, Harvard Professor, invented "Teaching Machine", which was used by schools to execute Programmed Instructions to students
1960	First Computer Based Training – CBT program was introduced to the world. Was also known as PLATO – Programmed Logic for Automated Teaching Operations. Originally designed for University of Illinois but ended up being used in schools. It offered drills and the ability to skip questions
1966	Prof. Patrick Suppes and Prof. Richard, Stanford University, Started Using CAI – Computer Aided Instruction. Installed the first computer in a community college for instructional use to teach Math
1969	US Department of Defense Commissioned ARPANET to create the Internet (Arpanet Heralds Internet)
From 1970s	Online learning become more interactive with emergence of Open University
1970	Computer Mouse and GUI are Invented, which helped "Modern Computing". Computer based training (CBT) began in New Jersey Institute of Technology
1980s	First MAC came into existence to have computers in Homes. Learning was made easier and skill sets were developed
Early 1990s	Virtual learning began to thrive, many schools delivered courses online. This helped to overcome Geographical and Time constraints
1990	The First "Digital Native" was born, Emails takes off new era in learning. Virtual learning and e-Learning becomes a widely recognized term. PDAs – Palm Pilot personal digital Assistants. A handheld device was developed which performed multitasks like calculator, calendar and notepad
1999	Emergence of the word e-Learning. e-Learning word was first utilized in a CBT systems seminar. Other words like 'Online learning' and 'Virtual learning' words also began to spring.
21st Century	
In 2000s	Business e-Learning emerged for training their employees. Businesses adopt e-Learning as a central way to train workers. Mostly Corporations, Business and Military adapted e-Learning
2010	Arizona State University ranked first in Math and reading performance as a result of Blended Learning
2010 +	Social, Online Learning, e-Learning through social media builds momentum. Opportunities to connect and share information to each other globally through YouTube, Twitter, MOOCs – Massive Open Online Courses, iTunes U, Skype started growing
2015+	Peak of Virtual Classrooms and Blended Learning through all source and means
2020	**Emergence of ""vidco-L = vidco-Learning""***

Source: Compiled by Author from various secondary sources

*** Author Sensation . New Name given by the Author**

4.2. e-Learning Selective Highlights

(Kylli, 2005) Learning is more interactive compared with its past. It has moved from centrally controlled, textbook tutorials to not so centrally controlled learning surroundings. Situation is where there is some instruction provided within the online platform and the rest has to be sternly sought after by the students. The most important is flexibility regarding course materials, lecture timings and location where students are in Finland while the teacher works from Singapore.

(Gonella L and Panto E, 2008)[2]. In CSP-ICT Innovation, Italy, has traced 04 stages in the growth of education. Stage - 1 Web-based Training, which mainly comprised multimedia pages. Stage - 2 e-Learning 1.0, a just rise online learning industry made a quantum leap when the first Learning Management Systems (LMS) software was developed with a focus towards content delivery. Stage - 3 Online education, which gave way for Web conferencing technologies enabling interaction and discussions amount students and for the first time ever, learning became a global social process and Stage - 4 e-Learning 2.0, when study programmes became fully interactive with array of interactive services.

(Bezhovski & Poorani, 2011)e-Learning significantly evolved in parallel with the development of the Information and Communication Technologies. The real growth of e-Learning has started after the introduction of the Web and still is developing coping with the new challenges. e-Learning has many benefits both in the learning process both for the trainers and learners. It is widely adopted by 80% of the educational institutions, 77% by the companies and the military. The e-Learning market is widely diversified with more than 500 Learning Management Systems available where none of them holds more than 10% of the market share. The research revealed that blended learning, gamification, micro learning, MOOCs (Massive Open Online Courses), Software as Service, Personalized learning, continuous learning are the dominance of e-Learning.

(Pattanasith et al., 2015) Aimed at evaluating and developing a model for Virtual Learning Environments (VLEs) for graduate students. The final outcome of the study showed that the Model of learning through VLEs was appropriate for graduate students because; Online was a new frontier and educators around the world experience many demands on their knowledge, time and professional development, developing and sustaining effective online learning can be challenging due to technological advancement and it has the potential to develop students, inculcate discipline and bring educators together to learn, share challenges and construct new learning.

(Siemens et al., 2015) This systematic study addressed the issues of teaching and learning in online settings. It states that there is no significant difference in effectiveness of online learning compared to traditional face-to-face settings. Systematic online discussions with crystal instructions and expectations, well-designed courses with flexible deadlines, regular instructor involvement are promising approaches in online environment. However, it also implies a more complex role for the instructor in online settings.

(Williams & Goldberg, 2016)e-Learning is turning out to be evolutionary, not revolutionary. So, long as an institute has a policy founded on quality, it is feasible for the institute to grow as e-Learning experience growth. Those skipping on the platform without care and support – and who attempt to repeat campus-based standards online – are in for a rude awakening. Education is no longer about teachers and teaching. Societal forces now demand that the focus be on learners and learning. Institutions with strategies based on quality learning outcomes are well paced to benefit from this e-Learning evolution.

(Kumar Basak et al., 2018) The terms of electronic learning (e-Learning), Mobile learning (m-Learning) and the digital learning (d-Learning) are used casually or in anequivalent way to mean technological learning. The objective of this inquiry was to review and analyze the concepts. The study concludes that all the three technology tools e-m-d-learning are important and play a crucial role in modern education society, so the learners and teachers need to acquire technological skills to success in e-m-d learning environments.

(Hadadnia et al., 2020) Study was conducted to compare the effect of teaching by online teacher versus real teacher on the learning of students in real classrooms at the University level. The outcome is that it is possible to use online teachers to overcome the lack of expert instructors in universities. Live education in the classroom also have high costs for their executors. The interesting finding is that the quality of student learning as an outcome of teaching through online instructors is the same as the outcome of teaching through real teachers.

[2] https://www.educationworld.in/the-e-learning-evolution/

4.3. Ingenious Reactions during COVID-19

(Raj, 2020) Indian Infratech is not ready to opt for the online education system in the country hence not possible to shift to online learning mandated by situation arising due to Covid 19, consistent with a release by Quacquarelli Symonds (QS), which comes out with worldwide grading for educational institutions. More development is required in the sector of internet, electricity and e-Learning in every sector

(OECD, 2020) Although the top priorities for the short term are generally agreed, the manner in which to achieve is not agreed. The crucial query for all systems is what to do for students who will be joining for tertiary education. Preferences currently in discussion include limiting national exams to an oral evaluation (Italy), postponing the dates of national exams (Spain), or cancelling final exams (national or otherwise) and assessing students on the basis of coursework and teacher assessment of estimated grades pre-pandemic (Canada, France and the United Kingdom)

(Soni, 2020) Around 96 countries throughout the globe have introduced several solution in this pandemic to carry forward the education system. Due to sudden out-break of COVID-19 there is insufficient time to assure the quality of e-Learning. UNESCO portal on COVID-19 has provided prompt support to many countries across the world to facilitate the learning continuity and minimize the disruption of education, specifically for the sake of vulnerable class (Under National Learning Platforms and tools by UNESCO 2020). e-Learning has emerged as a benefit to learners and educators around the globe inspite of challenges.

(Onyema et al., 2020) The 2019-20 coronavirus pandemic has damaged educational setup worldwide, forcing to closures of schools, universities and colleges. At the middle April 2020, approximately1.723 billion learners have been affected due to closures. The study have given various recommendations viz., consider temporarily decentralizing devices from computer labs to families and support them with internet connectivity, design solutions to handle psychosocial challenges before teaching, Create communities to assure regular human interactions, facilitate social caring measures and mark possible psychosocial challenges that students may face when they are isolated, Provide support to teachers and parents on the use of digital tools organize brief training sessions for teachers and parent as well and adopt the applicable learning methodologies based on the closure and home-based quarantines.

(Agarwal & Kaushik, 2020) Coronavirus has impacted human life and also impacted medical education. The study was carried using free version of Zoom with medical students and a feedback was taken from 77 participants in total with 87% post-graduate students found the sessions to be relevant to their learning needs and clinical practice. Participants reacted that these online sessions cleaned out monotonous routine, were a good usage of time and the material was easy to access. They were motivated to read on those topics and it helped them not to think of COVID-19 and sleep peacefully. It concluded that Covid Pandemic made them realize the importance of online training for pediatric postgraduate students. Online learning was a diversion from the ongoing pandemic situation.

(America, 2020) Universities are facing unusual challenges because of coronavirus outbreak. Many are struggling to navigate this crisis while maintaining consistent course delivery, ensuring strong student recruitment numbers and providing clear communication to staff and students. The study shows how the universities have done a space of measures. 50% of the respondents have replaced some of the scheduled courses online, 19% delayed the start date for some of the courses, 17% changed the application deadlines, 16% changed offer acceptance time limits and 13% deferred some offers of 2020 to 2021.

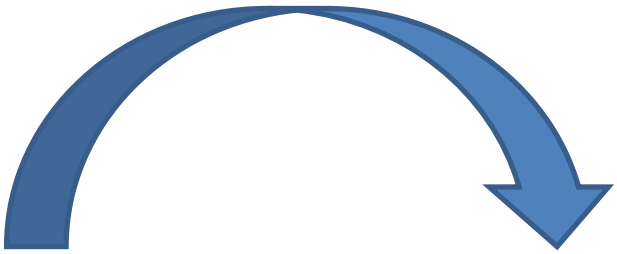
(Basilaia & Kvavadze, 2020) Based on the case study conducted in Georgia and from the statistics it is clear that the traditional to the online education system was successful. The system and the skills that were built up by the teachers, students and administration can be used in the post-pandemic period. The teachers have remodeled the distance learning in a new way, have adapted to the new format of the lessons. The experience from the pandemic of 2020 will urge a generation of new laws, regulations, platforms and results for future cases, when the countries, government and people will be better prepared than today.

5. DISCUSSION AND RESULTS

The discussion and results are divided into Two Segments for the purpose of easy presentation

Segment – 1	Based on Authentic Secondary Source
Segment – 2	Based on Primary Source

SEGMENT - 1



5.1. IAU contribution towards Higher Education during COVID-19

(International Association of Universities, 2020) **IAU – International Association of Universities**as on 24 April 2020, has compiled a document and provided information regarding the impact of COVID-19 on Higher Education around the world. Considering the facts from the document the following two tables are prepared in a user-friendly way to make it simple and understandable.

1. Actions, Recommendations and Implementations by Educational Institutions and Organizations
2. Directions and Guidelines by Country and Region

Table 02: Actions, Recommendations and Implementations By Educational Institutions and Organizations

S. No.	Organization / Universities	Actions, Recommendations and Implementations
1.	IIE Institute of International Education	Emergency Student Fund issued a call to IIE Member institutions in the USA to nominate international students who are not able to return to their home countries and the Grant was $2,500 to selected students.
2.	UNESCO	Portal on Covid -19 Educational Disruption and Response was developed.
3.	AUF (IAU Member) Agence Universitaire de la francophonie (AUF)	Platform for distance teaching and learning produces weekly update, keeping an eye on publications related to pandemic from Higher Education and Partners of the AUF.
4.	ACE American Council of Education	Recorded series of Webinars related to the impact of COVID-19 which also includes finance in Higher Education system.
5.	AIU (IAU Member) Association of Indian Universities	Created a platform for Indian Universities to experience the e-content, approaches and strategies followed by them for delivery of online content.
6.	AACU Association of American Colleges and Universities	Offering chain of Webinars to support and uphold the commitment to quality, equity and inclusion
7.	Bahamas Government	Ministry of Education has made Virtual Learning Portal available to students.
8.	CHED Commission on Higher Education, Philippines	Issued codes for the prevention, control and mitigation of the spread of Corona in Higher Education Institutes.
9.	Council of Europe	Webpage on COVID-19 was launched by the Education Department
10.	DIU Daffodil International University, Bangladesh	Organized A Hackathon for Combating COVID-19. Under this competition, students will be eligible to compete online and solve the challenges and can win a prize money which was fixed at $25,000
11.	HEC Higher Education Commission, Pakistan	Developed a Databank of online courses available at the national and international level
12.	EAIE European Association for	Two resources for Higher Education institutions: 1. How Higher Education institutions can react to COVID-19?

	International Education (IAU Partner)	and 2. How to Support students affected by coronavirus?
13.	ESU European Students' Union	Published the COVID-19 Position Paper which probes the significances for students and student welfare of the COVID-19 crisis
14.	Erasmus+	Offering Free of charge training and courses as well as Masterclass on "How to enrich online teaching activities in Higher Education through Virtual Exchanges"
15.	Erasmus Student Network (IAU Partner)	Developed initiatives to assess the impact of COVID-19 on student exchange in Europe
16.	IIE Institute of International Education	Organized series of Webinars
17.	IOHE The Inter-American Organization for Higher Education	Compiled online educational resources to participate in a series of Webinars
18.	OAS Organization of American States (IAU Partner)	Incorporated their online courses into the Educational Portal of the Americas
19.	OneHE (IAU Partner) Higher Education organization	Providing support and resources for academics to move to online teaching
20.	UUK Universities UK	Released a resource Coronavirus (COVID-19) information for universities
21.	University of Bergen	Organized series of interviews on global inequality as a response to the ongoing pandemic
22.	World Bank	Produced several resources analyzing the global context of the impact of COVID-19 on Higher Education
23.	World Digital Library	Open Access Resource from UNESCO and the Library of Congress over 19,000 articles on 193 countries
24.	Zhejiang University, China (IAU Member)	Handbook for COVID-19 Prevention and Treatment made available
25.	Bournemouth University (IAU Member)	Has launched a survey on the impact of lockdown on academics
26.	Erasmus Student Network	Provided a survey report of 22,000 international students in Europe regarding the shock of COVID-19
27.	EAIE European Association for International Education	Released a research and trend report based on survey of Higher Education institutions
28.	ESSSR and IUSDRP The European School of Sustainability Science and Research and the Inter-University Sustainable Development Research Programme	Launched a large study aimed at ascertaining how the crisis triggered by COVID-19 is affecting the academic community
29.	IIE Institute of International Education	Conducted a survey focusing the overall effects of COVID-19 on International students in the United States
30.	WAHED World Access to Higher Education Day	Conducted a Survey on the outcome of COVID-19 on Higher Education admissions.

Source: Compiled by Author based on IAU – International Association of Universities Document, April 2020

Table 03: Directions and Guidelines by Country and Region

Country	Region	Directions and Guidelines
AFRICAN COUNTRIES	Cameroon	Head of State Universities and Higher Institutions of learning have been asked to use all the tools with respect to digital-learning mechanism that will enable students to study
	Ghana	UCC announced April 22 as the date to resume lectures and exams to begin on June 15. ISDES (Institute for Security, Disaster and Emergency Studies) has called on government to extend support to foreign students
	Kenya	Universities developed mass testing device and protective gear
	Mauritania	Student unions have appealed to the government to allow Mauritanian students in neighbouring countries to return home
	Namibia	The Executive Director of the Ministry of Education and Innovation, said the ministry has realized that face-to-face learning is a no-go area and so to engage all institutions on online platforms
	South Africa	Universities implemented grand plans to rescue the 2020 academic calendar and the academic year could stretch into 2021.
	Zimbabwe	Government has nominated local universities and other institutions of higher learning to prepare interim quarantine purposes for all returning residents, as part of exercise to control the spread of COVID-19. Also Government has made available USD 1.3 million in seed capital to state universities to make personal protective equipment
ARAB COUNTRIES	Egypt	The Supreme Council of Universities announced that all students will continue their study via distance learning. The council has also cancelled oral and written exams for all students, excluding final year students
	United Arab Emirates UAE	UAE government decided on 30 March to extend the e-Learning Programme in all educational facilities across the country till the end of the academic year in June
ASIA AND THE PACIFIC	Australia	Overseas students in Australia face 'unequal' support packages. It projected a revenue loss of $ 19 billion from 2020 to 2023. Without international students, Australian universities will phase out and some might crash together
	Bangladesh	Dhaka University among four public universities to run COVID-19 tests.
	China	The provincial bureau of education said that Higher Education institutions in east China's Zhejiang Province will restart from April 26 and May 10. Chinese authorities have issued directives to universities and research organisation that any academic papers on COVID-19 will have to be sent for review and scrutinizing before submitting to academic journals for publication
	India	Universities will think about combined exams for different semesters after situation returns to normal.
	Japan	Prime Minister announced to close all schools and universities from 2 March
	Korea	Universities face dilemmas as elementary, middle, high schools decide to start spring semester online
	Macao	A Specialized Subsidy Scheme for Prevention and Response to Major Infectious Diseases has been launched. The scheme is open for applications until 4 September 2020.
	Malaysia	As on 8 April, 10 diagnostic laboratories served to help the Health Ministry in conducting 16,500 COVID-19 tests daily. Colleges and Universities forced to switch from in-person teaching to online learning. Movement Control Order – MCO being enforced.
	New Zealand	University students said quality of teaching declined after classes moved online
	Philippines	Commissioner of Higher Education - CHED to decide on Universities and

		colleges on tuition fee refund
	Sri Lanka	All universities in Sri Lanka will be opened in three stages starting from 4 May, 11 May and 18 May
	Turkey	The Turkish Council of Higher Education – YOK announced on 1 April that students studying in undergraduate and graduate programmes will be able to defer their registrations in the spring semester of the 2019-20 academic year
	Vietnam	Analysis of a perfect downpour for international recruitment
EUROPE	Belgium	Flemish University colleges are planning the possibility to begin "limited contact teaching" during which severe conditions such as social distancing will have to be respected
	Estonia	Universities switched to distance learning from 16 March. Deputy Secretary of Higher Education and Research recommended that institutions could work in groups of up to ten people starting from 15 May
	Germany	German humanities scholars enlisted to end coronavirus lockdown
	Hungary	Shanghai's Fudan University foundation sends masks, protective clothing to Hungary
	Ireland	More than 2000 research staff in universities and institutions of technology are at risk of losing their jobs because of funding uncertainties caused by COVID-19. Taoiseach says college may not begin until 'October or November' due to Leaving Certificate delays
	Netherlands	Dutch Prime Minister announced that universities and secondary schools will stay closed for May
	Spain	Changes in timetable and university entrance examinations are agreed. Dates from 22 June to 10 September are selected for the same.
	United Kingdom	Most of the University students want exam to continue online
LATIN AMERICA	Argentina	Secretariat of University Policies – SPU recommended readjustment of 2020 academic calendar for National and Private Universities and Institutes.
	Brazil	Face-to-face Classes were suspended, and university students asked for reduction and even suspension of monthly academic fees
	Chile	Deputy Secretary of Higher Education activated an Action Plan to Support Higher Education Institutions and technical training centers and professional institutes to strengthen their distance education systems
	Colombia	Ministry issued directions on 22 March to Higher Education Institutions to develop programs which provides a series of guidelines for the development of academic programs with qualified registration in attendance mode, from the date until May 30, 2020
	Cuba	In March classes were suspended and were to restart on 20 April after school break
NORTH AMERICA	Canada	Many universities told to reduce costs by upto 30% to help province face pandemic
	United States	ACE – American Council and Education has called for extended student loan relief on behalf of more than 30 Higher Education organizations.

Source: Compiled by Author based on IAU – International Association of Universities Document, April 2020

5.2. UNESCO Statistics

(UNESCO, 2020) As per the data given by UNESCO[3] – United Nations Educational, Scientific and Cultural Organisation as on 15.07.2020, 60.5% of the world's student population are affected, 1.05 Billion learners are out of Institutes and 109 countries are affected by Closure of Institutions. Following is the summary of Learners who are affected due to Covid-19 with respect to India. Only India is taken for the tabular presentation since 75% respondents in this study are Indians.

[3] https://en.unesco.org/covid19/educationresponse/globalcoalition

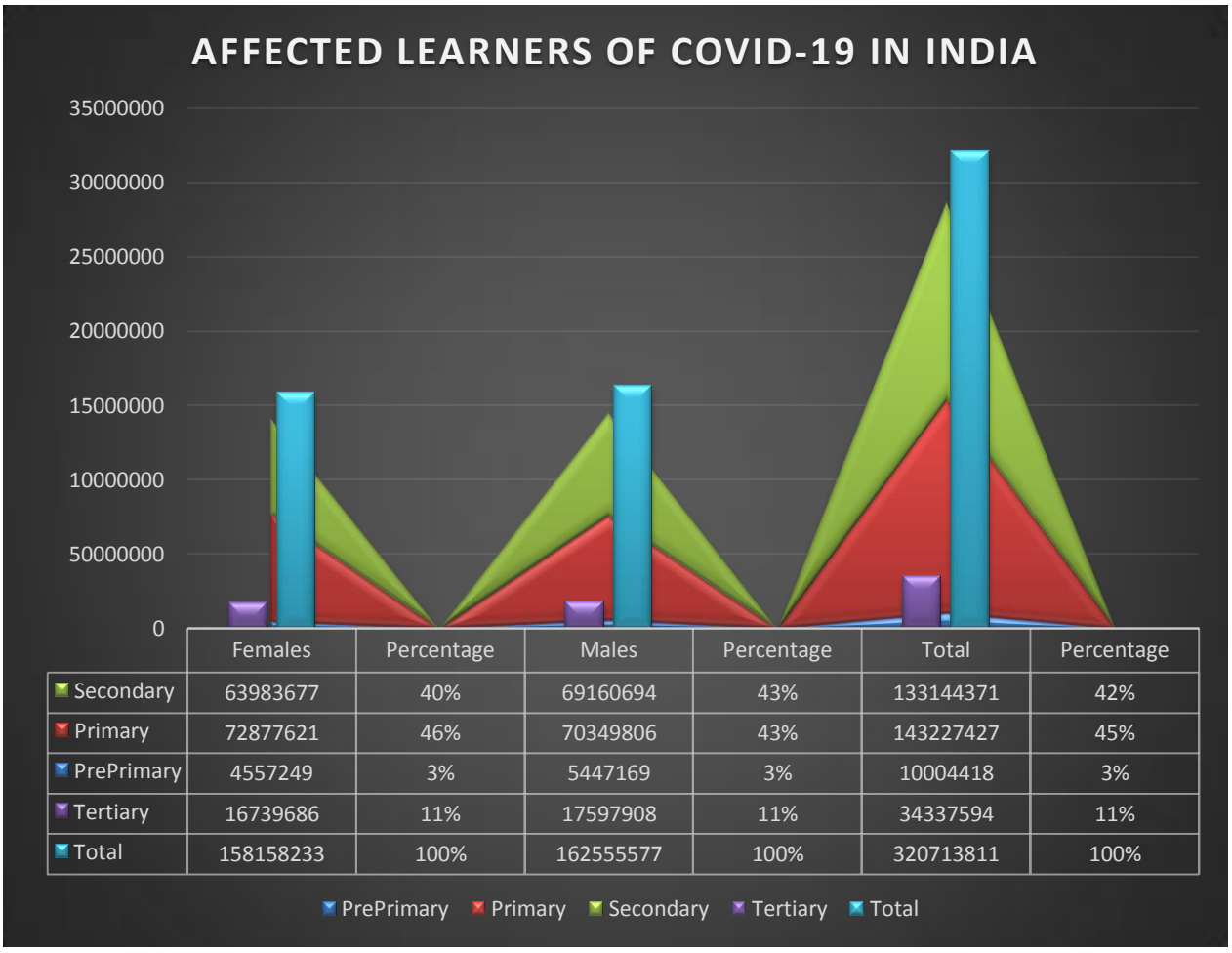
Table 04

AFFECTED LEARNERS IN INDIA

Institution Type	Females Learners	Percentage	Males Learners	Percentage	Total Affected Learners	Percentage
Preprimary	4557249	3%	5447169	3%	10004418	3%
Primary	72877621	46%	70349806	43%	143227427	45%
Secondary	63983677	40%	69160694	43%	133144371	42%
Tertiary	16739686	11%	17597908	11%	34337594	11%
Total	158158233	100%	162555577	100%	320713811	100%

Source: UNESCO Report as on 15.07.2020

Figure 01

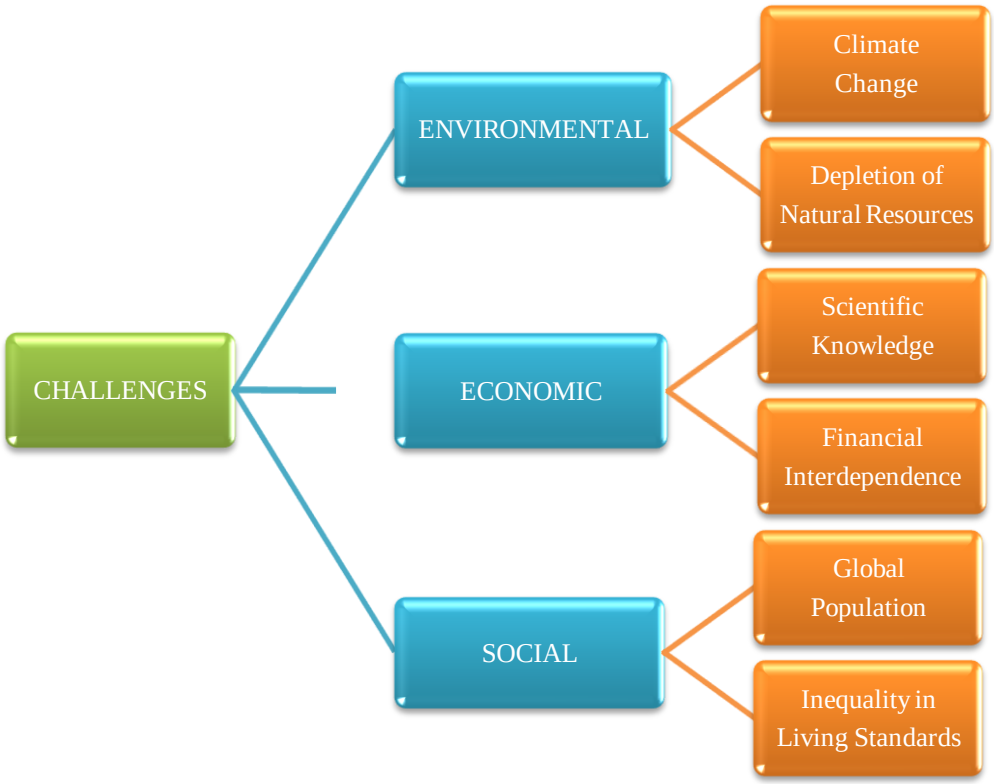


Source: Table 04

5.3. 2030 Education Future

(Andreas Schleicher, 2018) OECD Learning Framework 2030. The Vision and Principles offered by OECD for Future Education System gives a summary of global effort for education change and the Needs. OECD Education 2030 commits to the UN 2030 Global Goals for Sustainable Development (SDGs), aiming to ensure the sustainable people, profit, planet and peace through partnership. It classifies Needs into three major components giving an in-depth analysis: **Need** for broader education goals: Individual and collective well-being. **Need** for a broad set of knowledge, skills, attitudes and values in action. **Need** for New solutions for changing world. Societies are changing rapidly and exceedingly. OECD has classified challenges under three captions. Following gives an outline of the challenges in a pictorial form which has been discussed by OECD.

Figure 02



Source:
Compiled by Author (From OECD–The Future of Education and Skills/Education 2030 report)

SEGMENT - 2

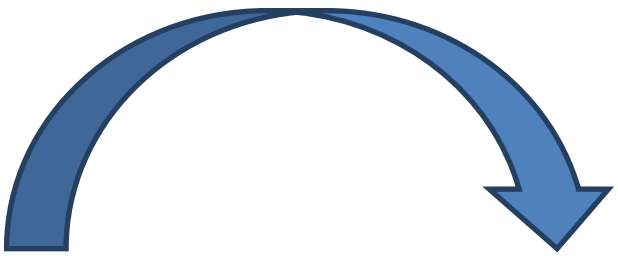


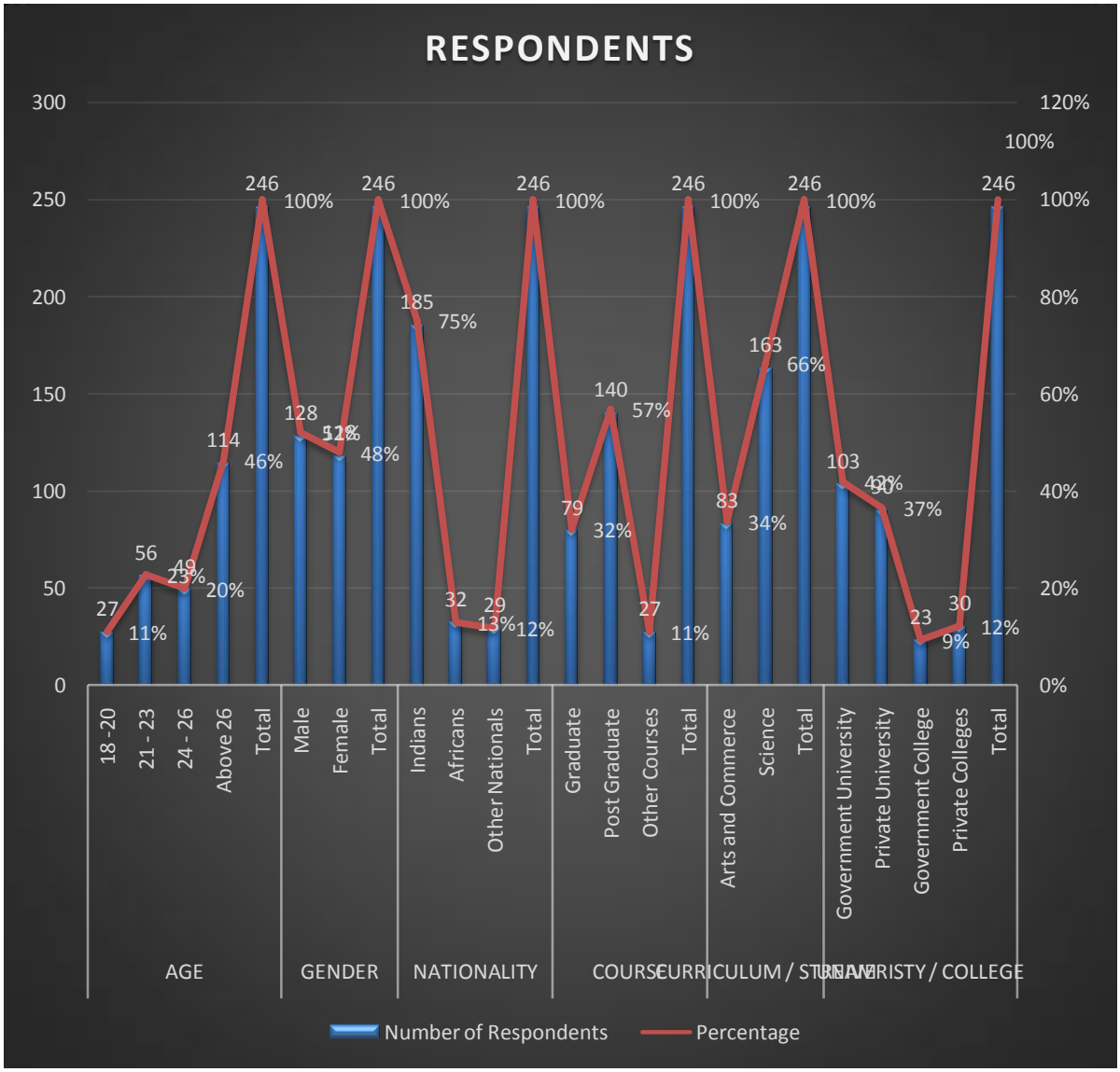
Table 05

Demographic Sample Distribution

SAMPLE BASE	Distributions	Number of Respondents	Percentage
AGE	18 -20	27	11%
	21 - 23	56	23%
	24 - 26	49	20%
	Above 26	114	46%
	Total	246	100%
GENDER	Male	128	52%
	Female	118	48%
	Total	246	100%
NATIONALITY	Indians	185	75%
	Africans	32	13%
	Other Nationals	29	12%
	Total	246	100%
COURSE	Graduate	79	32%
	Postgraduate	140	57%
	Other Courses	27	11%
	Total	246	100%
CURRICULUM / STREAM	Arts and Commerce	83	34%
	Science	163	66%
	Total	246	100%
UNIVERISTY / COLLEGE	Government University	103	42%
	Private University	90	37%
	Government College	23	9%
	Private Colleges	30	12%
	Total	246	100%

Source: Primary Data

Figure 03



Source: Table 05

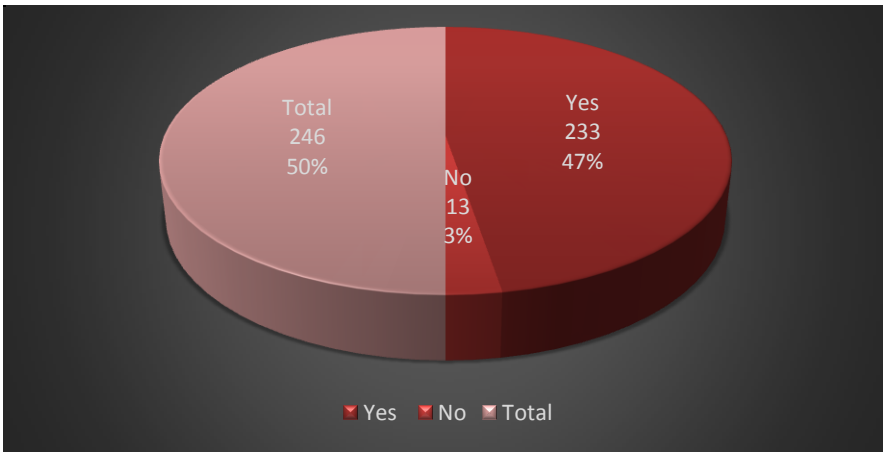
Table 06

Awareness of Online Classes

Reactions	Number of Respondents	Percentage
Yes	233	95%
No	13	5%
Total	246	100%

Source: Primary Data

Figure 04



Source: Table 06

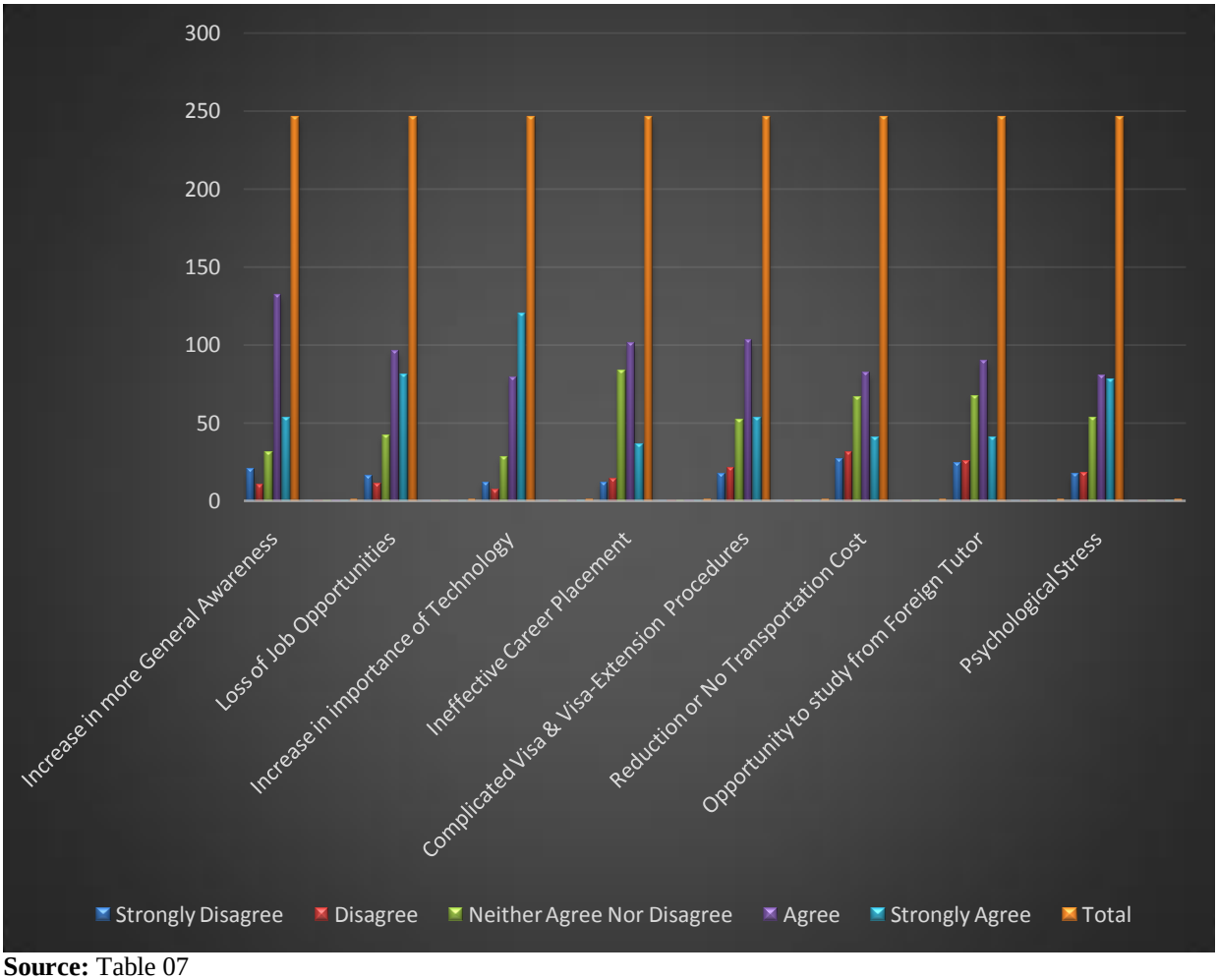
Table 07: Factors Having Influence due to COVID-19

Influencing Factors	Respondents and percentage	SD[4]	D	NAND	A	SA	Total
Increase in more General Awareness	Respondents	20	10	31	132	53	246
	Percentage	8%	4%	13%	54%	22%	100%
Loss of Job Opportunities	Respondents	16	11	42	96	81	246
	Percentage	7%	4%	17%	39%	33%	100%
Increase in Importance of Technology	Respondents	12	7	28	79	120	246
	Percentage	5%	3%	11%	32%	49%	100%
Ineffective Career Placement	Respondents	12	14	83	101	36	246
	Percentage	5%	6%	34%	41%	15%	100%
Complicated Visa & Visa-Extension Procedures	Respondents	17	21	52	103	53	246
	Percentage	7%	9%	21%	42%	22%	100%
Reduction or No Transport Cost	Respondents	27	31	66	82	40	246
	Percentage	11%	13%	27%	33%	16%	100%
Opportunity to study from Foreign Tutor	Respondents	24	25	67	90	40	246
	Percentage	10%	10%	27%	37%	16%	100%
Psychological Stress	Respondents	17	18	53	80	78	246
	Percentage	7%	7%	22%	33%	32%	100%

[4]SD – Strongly Disagree / D – Disagree / NAND – Neither Agree nor Disagree / A – Agree / SA – Strongly Agree

Source: Primary Data

Figure 05



Source: Table 07

Table 08

Conditions Influencing Effectiveness of Online Learning

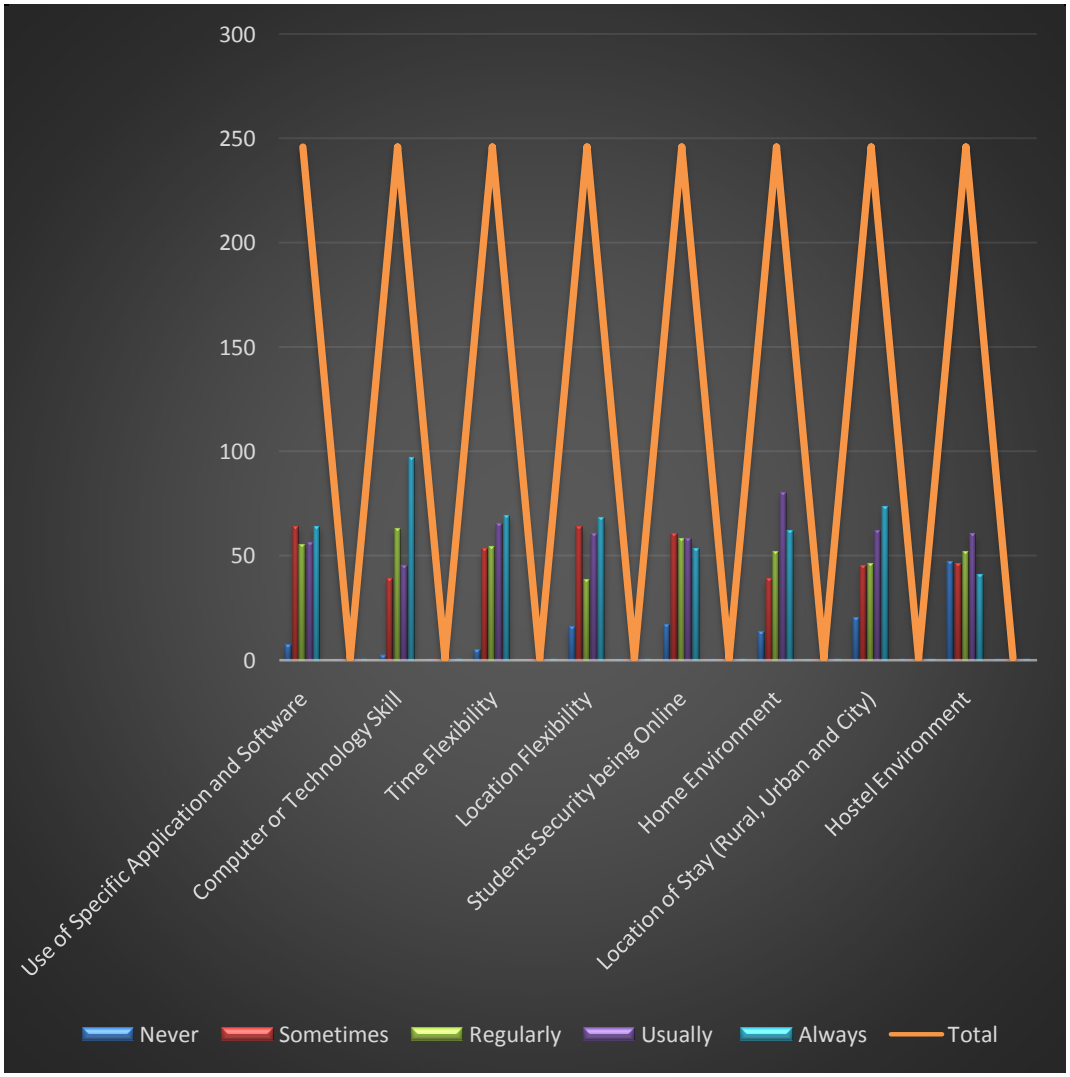
Influencing Conditions	Respondents / Percentage	N[5]	S	R	U	A	Total
Use of specific application and software	Respondents	7	64	55	56	64	246
	Percentages	3%	26%	22%	23%	26%	100%
Computer or Technology Skill	Respondents	2	39	63	45	97	246
	Percentages	1%	16%	26%	18%	39%	100%
Time Flexibility	Respondents	5	53	54	65	69	246

[5]N – Never / S – Sometimes / R – Regularly / U – Usually / A - Always

	Percentages	2%	22%	22%	26%	28%	100%
Location Flexibility	Respondents	16	64	38	60	68	246
	Percentages	7%	26%	15%	24%	28%	100%
Students Security being online	Respondents	17	60	58	58	53	246
	Percentages	7%	24%	24%	24%	22%	100%
Home Environment	Respondents	13	39	52	80	62	246
	Percentages	5%	16%	21%	33%	25%	100%
Location of Stay (Rural, Urban and City)	Respondents	20	45	46	62	73	246
	Percentages	8%	18%	19%	25%	30%	100%
Hostel Environment	Respondents	47	46	52	60	41	246
	Percentages	19%	19%	21%	24%	17%	100%

Source: Primary Data

Figure 06



Source: Table 08

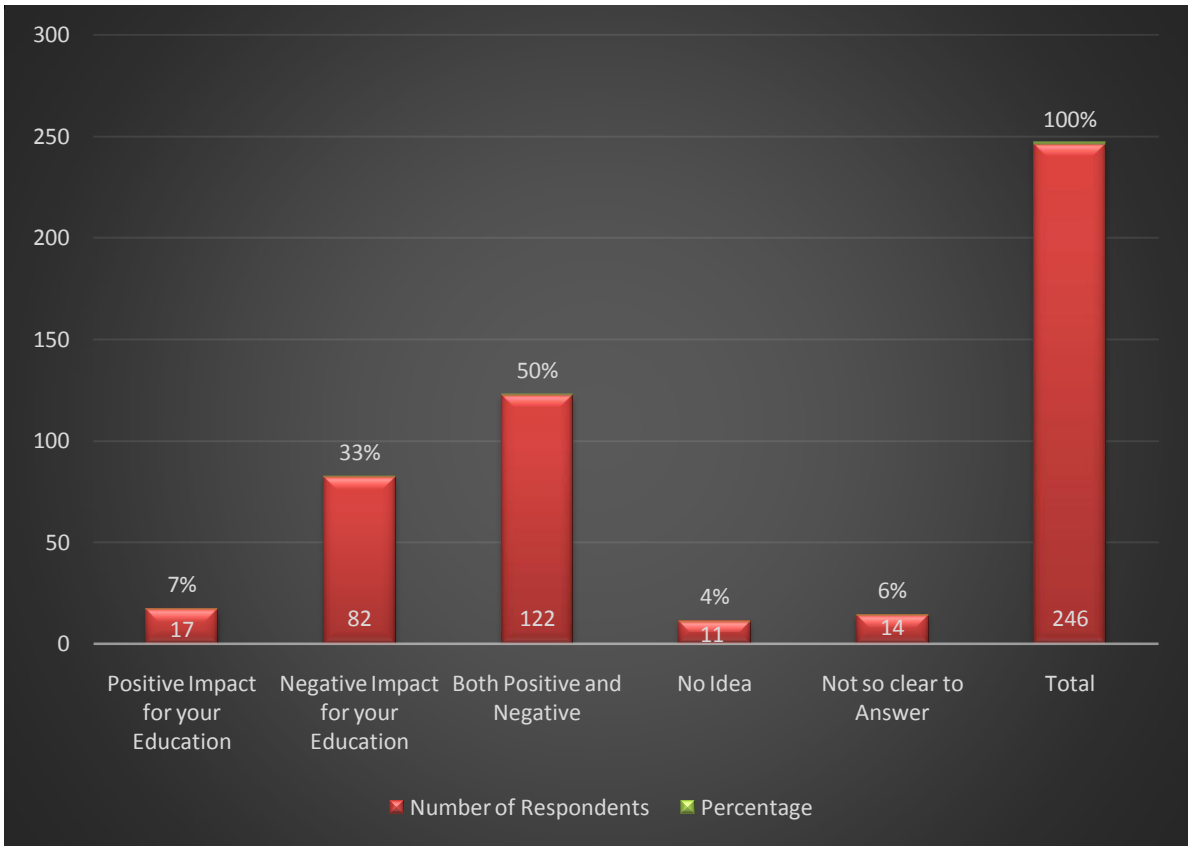
Table 09

Overall Impact of COVID-19 towards Education

Impact	Number of Respondents	Percentage
Positive Impact for your Education	17	7%
Negative Impact for your Education	82	33%
Both Positive and Negative	122	50%
No Idea	11	4%
Not so clear to Answer	14	6%
Total	246	100%

Source: Primary Data

Figure 07



Source: Table 09

6. FINDINGS AND CONCLUSION

6.1. Findings

The following are the major findings of the study

- ✓ Concept of e-Learning is prevailing 18th Century
- ✓ As per the IAU document as on 24 April 2020 a total of 30 organizations and universities have taken various actions and implemented the same towards Higher Education throughout the universe. It has also given a clear picture about the various directions and guidelines carried by African Countries, Arab Countries, Asia and The Pacific, Europe, Latin America, North America and the regions of these respective countries.
- ✓ UNESCO clearly specified that 60.5% of the world's student population are affected, 1.05 billion learners are out of institutes and almost 109 countries are affected by closure of institutions. In India alone 11% of learners in tertiary education are affected.
- ✓ OECD offered Future Education System 2030 specified and classified the challenges in education system in future under three captions as Environmental, Economic and Social which constitute climate change, depletion of natural resources, scientific knowledge, financial interdependence, global population and inequality in living standards.
- ✓ A total of 95% of the respondents have mentioned that they are aware of online classes.
- ✓ More than 70% of the respondents agree that COVID-19 has impact towards Increase in general awareness, loss of job opportunities and increase in importance of technology and more than 60% of the respondents agree COVID—19 has resulted in psychological stress, complicated visa and visa-extension procedures.
- ✓ More than 55% of respondents agree that home environment and Location of stay are the main conditions which influence effectiveness of online learning, followed by technology skills and location flexibility.
- ✓ A total of 50% of the respondents say that the overall impact of COVID-19 towards education is both positive and negative.

6.2. Conclusion

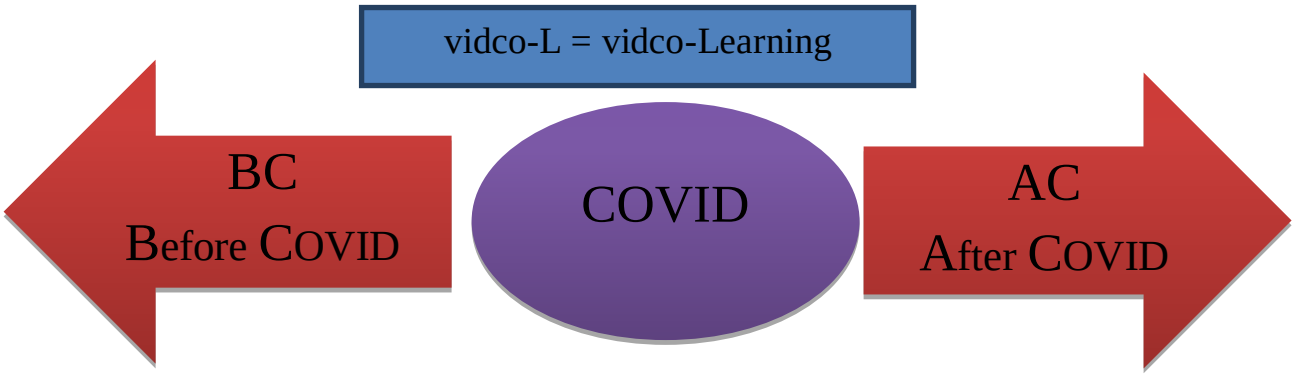
From the review and findings of the study it is evident that most of the present generation students are aware of Online Learning and also, they are well versed with technology. Hence the future education will be with a mix of knowledge, skills and values from all disciplines. The study cannot be concluded in the present context clearly since the pandemic is still alive. But in-depth study with application of statistical inference may help to draw accurate conclusions.

AUTHOR'S SENSATION

Transformation is seen in the field of education through e-Learning, m-Learning, v-Learning, d-Learning and now **"vidco-Learning" (vidco-L)** has emerged.

v = Virtual**, i** = Internet**, d** = Distance, **c** = Class and **o** = Online === **vidco-L**
vi = Virus, **d** = Disease and **co** = Corona === **vidco-L**

This "vidco-Learning" (vidco-L) is a New Chapter in Education History which will flourish for generations to come and furthermore will be alive till the world exists. Everyone in this Globe are aware of BC and AD. From 2020 there will be BC and AC which will exists in the History of Education till the existence of Education.



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Author wants to thank all his students who responded to the survey promptly on time and also ***Dedicate this Article to all his Students***

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