3. Impact of Covid-19 on Education

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Abstract:

Education is lifelong process. We learn different things from different situations formally and informally. Due to rise of Covid-19 virus sudden change occurs in life of human kind. Lockdown was implemented by all the affected countries.

Education including all other activities were stopped. After initial chaos, work from home become the principal of new normal of working. Education was also allowed to restart. School were closed but education started. As education system was not ready for it initially, later all stake holder accepted and adopted online education i.e. work from home.

Online education raised as an alternative for formal education in the lockdown period. It was no choice situation, so accepted. It makes great impact on whole education system. The gap between reality and expectation was much more than guessed. Teachers were finding ways out to reach students. Students were trying to get connected with teachers.

Teaching, learning, evaluation, research, extension, admission etc. all processes affected by the situation created by Covid-19 virus pandemic. The impact of the situation created by covid-19 pandemic has been described in the chapter on different processes of education. The impact even continue after pandemic, so post covid-19 pandemic era also considered in the chapter.

Keywords: education, online teaching, new normal in education, post pandemic education, education in lockdown.

3.1 Introduction:

India's first case of Coronavirus COVID-19 (Severe Acute Respiratory Syndrome Coronavirus – SARS-CoV-2) reported in Kerala. A medical student studying in Wuhan University was the patient zero in India. Then the graph of number of infected people was on high rise. Nationwide lockdown was ordered by Central Govt. of India from 24th of March 2020, for 21 days. On 14 April, India extended the nationwide lockdown till 3 May which was followed by two-week extensions starting 3 and 17 May with substantial relaxations. From 1st June 2020, the government started "unlocking" the country.

During the period of full lockdown i.e. 24th of March 2020 to 31st of May 2020 'Work from Home' principle was encouraged and so online education was promoted where teacher can engage students for education. It is continued further during the process of unlock, because schools and college s were not allowed to start.

3.2 Impact of Covid19:

Impact of Covid 19 doesn't mean its infection here. Impact of situation which is occurred due to Corona virus; in absence of proper medicine on Covid-19 virus. Because the vaccination not available prevention was must to avoid physical distancing from infected people to non-infected people.

So maximum public places were closed in lockdown and initial phases of unlock down, including educational institutions. Online education was the only alternative left for education where education possible with physical distancing.

3.3 Education-Concept:

There are three ways of education widely accepted, formal, non-formal and informal education. Formal education means the education which is well planned, structured and designed for face to face education. Non-formal education also well planned and designed course but not for face-to-face mode i.e. distant mode. Informal education is not structured or planned like other type, still learning takes place in day-to-day life by people and experiences. Covide-19 left impact on all types of education.

3.4 Education-Processes:

Learning is at the centre of the education process. In fact education exists only because of learning. The sole purpose of all the processes to facilitate learning.

When we analyse the impact of Covid19 on education, we need to find out the changes in the nature of the processes. The impact is reflected in the processes.

- **Learning:** Learning is less or more permanent changes behavior in of a learner. These changes are directed well by goals of education. These goals are corresponding to the constitution of the country. Curriculum and syllabus designed to achieve these goals. All other processes are executed for the sake of best learning. So learner is always at the centre of the processes. So, the impact of Covid19 situation should be analysed by keeping learners at the centre.
- **Teaching:** Teaching is a process to facilitate learning. To help learners to learn with minimum errors. Teaching an act to provide various learning experiences to learners to achieve learning objectives. Covid impact analysis will help to improve process of teaching.
- **Evaluation:** Evaluation process that give the status of expected behaviour among learners. It provides feedback to learners and other stakeholders about attainment of learning objectives. How Covid19 making impact on evaluation process should be analysed.
- **Administration**: Administration helps to coordinate all the processes for better learning. Planning, execution, monitoring and reinforcing are expected in administration. During the covid19 period the administration played important role to coordinate all other processes.
- **Extension:** Extension is the process which takes education beyond the formal boundaries of classroom and students. It takes education to the society. It contribute lot in non-formal and informal learning.

3.5 Covid-19 Restrictions on Education in India:

Code 19 4th all governments. To initiate lockdown. All over the world. Due to the lockdown Educational institutions were closed an education started online. The impact of this online mode of education and the principle of 'work from home' leaving great impact on whole education process. The impact of whole scenario has been described in the form of processes. These process are connected to each other, they are not separate from each other. Just for the purpose of analyzing the impact the process these are separated from each other. All processes are complex and connected together. Impact on one process renders impact on other process.

3.6 Impact of Covid-19 Learning:

The impact of COVID-19 situation can be seen at the greatest level on learning process. Because of lockdown, face to face education was not possible hence online learning mode was adopted. Students and teachers were not ready for it. So lots of difficulties where faced by the student and teachers in that phase. Because of it learning was suffered.

Students are habitual for face to face learning not able to get connected with the teachers in online mode. Face to face interaction is full of enjoyment. Students and teachers like the face-to-face interaction. Due to the Corona pandemic lockdown this interaction was broken. The feeling of being human was missing in this technical interaction. Due to that learning became more technical rather human. Because of medium of technology, students and teachers were not feeling to get connected with each other. Because of lack of live interaction seriousness was lost. Students were thinking they are learning from mobile or computers and teachers were thinking they are teaching to the mobile our computers. Humans are social animals and teaching learning is a social interaction. Because this social interaction was missing, traditional learners were not able to learn properly as they expected.

COVID-19 pandemic lockdowns forced for learning from distance education. In the mode of distant education, learner has to learn on their own. Even they are receiving learning experiences from teachers in online mode they do not get connected as impressively as face-to-face mode. There are many technical limitations for two-way interaction hence interaction is not so effective in online mode. Technical limitations force teachers not to ask questions and not to participate students in the classroom. Even if students want to ask the queries, technical barriers disallow it. Unless the doubts in understanding not being cleared, learning is not effective. Because of the distant mode students not able to ask their queries to a teacher and teacher are not able to understand difficulties of students. Hence teachers do not get proper feedback from the students regarding learning. So, they do not able to improvise their teaching strategies. This creates a gap between the understandings about the students learning. Teacher has to understand the right status of the students learning and she has to ask the question to the students to evaluate the learning. Because of time consent and technical barriers it was not possible properly. The right status of the learning is not conveyed to the teachers properly and teachers do not able to understand the exact previous knowledge of students. Because of the gap of teacher's expectations and students learning the new element of the knowledge do not properly connected with the old element of the knowledge. The knowledge is not properly connected and so possible to be a weak chain. This is the greatest loss of education process. If the whole process of education is carried out to facilitate the learning and if the learning is not taking place then all other processes are useless.

Technology really helped in the COVID19 lockdown situation. It helps to continue the education process by keeping physical distancing on the other hand because of non-availability of the technology resources it becomes obstacle for some learners. Non availability of smartphone, computers, laptops, internet connectivity, electricity etc. are the learning obstacles. Because of the poor internet connectivity students and teachers disconnected frequently and the continuity of the content is broken. Hence learning does not occurs. In some families only one device is there and it has to be with the parents, if parents want to go on the work, their children do not able to join online classes and hence they are away from the learning. In some families more than two siblings having the classes at the same time but they do not have separate learning devices like smartphone laptop desktop computers for the learning, hence someone has to absent for the online classes. In spite of the great will to join online classes this technical difficulties disallow learner to learn. So COVID19 created a digital divide among students. Haves and Have-nots are having different learning attainment.

Learning material is provided in the form of PowerPoint Presentations, PDF file, video links etc. Learners required good connectivity to watch the videos which is generally missing. Either students have to see PowerPoint presentation or PDF file on screen or they have to take the print out. If they watching on the screen, mobile screen size is not enough or suitable to read, so can causes to eye sight problems. If they want to take printout, printer is not available in every family. Taking print out of each and every learning material is not affordable for the families. In the absence of proper learning material, learners face difficulties.

Due to the use of technological means, lots of physical problems occurred for the students. Continuous watching the screen causes to create eye problems. Improper seating arrangements created back pain issues among students. Because of lack of proper sitting arrangement for the online learning, back pain is possible.

Most of family don't have separate rooms for study. So students seating in the common room, disturbed by different activities by family members e.g. cooking, cleaning, eating etc. Learning is surrounded by many obstacles in this online mode of education. In educational institutions, in face-to-face mode; learning environment is created for students and their comfort is taken care. They can feel the mental preparedness for the learning and it is the dedicated place for the teaching and learning. Such arrangement is missing in the online education.

COVID19 pandemic lockdown situation gives the opportunities to the teachers to explore new learning experiences. Teacher explored different learning experiences like animations, videos, interactive software etc. and used for the learning. This new kind of learning material is made. Students more curious in technology and show interest for the learning. In this journey students also were exposed to different ICT tools to learn something new.

In this pandemic, students became more independent for learning in the absence of direct interaction with the teachers. They started taking help from the Internet, started exploring different study materials other than provided by the teachers. Teachers also encouraged students for self-learning. Parents are also involved in this process because students were using internet. Parents are advised to observe students when they are using mobile and internet. So students have to make use of the Internet under the supervision. Supervised learning is more observed in the lockdown.

Student comes to know different aspects of the content because they were exposed to different learning material. Their study was not limited for the textbook content. It went beyond the books and notebooks. They found lot information on the Internet and they got different in-depth points of the same content. In this way learning becoming more versatile well supported by technology, teachers and parents supported. Have-nots students were left behind in the online education and digital divide was widen.

3.7 Impact of COVID-19 on Teaching:

Online education that is 'working from home' makes the teacher more techno- savvy. Most of the teachers were not technically enabled for online teaching. After declaration of lockdown school started online and teachers were encouraged to teach online. To deliver best teaching teachers started learning online skills.

Teacher started preparing a content in the form of PDF, Image file, Power Points, videos etc. Most of the teachers were enabled to prepare PowerPoint presentations they started making it fuller with content. To make these presentations more effective for the students, teachers learn to search various educational resources online. They also learned to find out a use free learning resources for students. They become smarter explorer of the knowledge.

There are two modes of online education for teaching i.e. synchronous mode and asynchronous mode. In the process of synchronous mode teachers learn to make various online conferencing apps e.g. Zoom, Google Meet, Microsoft team etc. for teaching. Most of teachers learned these online conferencing tools for teaching by their own. Some schools provided former training online. In spite of lots of technical difficulties and non-availability of technical resources; teachers learned lots of ICT tools during the lockdown to cop up with online mode.

Teaching become more challenging in the lockdown in online mode. Classroom management, answering students' queries, giving motivation for better learning, mischievous behavior by using various online features by students etc. were the obstacles in synchronous online teaching.

In the asynchronous mode of teaching, teachers learned to share various learning resources with the students. What's app and Telegram groups were created for sharing instructions and learning resources? Teachers took help of YouTube videos for teaching. Google Classroom was one of the most used all asynchronous mode tool in the lockdown. These classroom were playing important role to share learning material, instructions, meeting links etc. Teachers learned to create videos by using mobile, laptop, screen recorder, editing video and audio etc.

Non availability of desktop or laptop computers, poor Internet connectivity, lack of formal training etc. were major technical obstacles in online mode faced by teachers. Teachers found various ways to come out which solution. Due to COVID19 lockdown situation, teachers learned online teaching they learned how to share learning resources, how to make classroom management how to make students alert during the class how to take attendance etc. online skills. In the COVID19 lockdown, online education was the only safe way of learning. Students started depending more on Internet rather teachers. Teachers become facilitator because they were providing various learning resources and learning opportunities for students; instead of merely sharing the information prepared by teachers.

Teacher-made content was left behind and student-explored content came forward. The impact of teaching on learning decreases. Because teaching was not the only process that affecting the learning in online education. Students can explore the information on the Internet and they can learn many things on their own. They were less depend on teaching process. The overall impact of teaching on learning was reduced because of COVID19.

Teaching becomes suggestive rather compulsive. Due to the technical difficulties teachers do not get 100% time allotted for the period so the overall time of teaching is reduced. By considering the less time; teachers become more suggestive by suggesting various learning ways. They try to make students less dependent on teaching. So the obstacles like poor Internet connectivity lack of devices, lack of human interaction etc. should not affect learning.

Teachers appeared in more innovative ways. Teachers used different effective ways of teaching and learning. Online education is newer to use in India. Most of schools and teachers we're not familiar with the online teaching skills and methods. To cope up the lockdown situation, an online teaching teachers become more innovative to fulfil students need.

Teaching becomes more controlled, precise and formal in online education due to in COVID19 lockdown. Because of limited time available and the technical threats teachers make their teaching more precise and to the point. Instead of giving more illustrations they tend to give web links, PDF files, YouTube links etc. additional learning resources for more understanding.

Discussion, brainstorming, christening, group activity etc. learning centred teaching strategies are not possible in online learning; that's why teacher has to find out different alternative to this. Teachers were discussing, exploring, experimenting, researching, and studying for better teaching with the minimum resources they got. Teaching is a live interaction with the students on the basis of content. Since live interaction with the students is missing teaching becomes a technical activity because due to poor Internet connectivity. During the online interaction teachers do not able to see the students and so students, hence interaction is not proper. Teaching becomes more technical, non-interesting, and less interesting thing.

COVID19 situation shown the digital divide among the teachers on the basis of e-skills and availability of resources. Teachers who were able to use ICT tools were got more importance. Teachers having good financial conditions afford to purchase laptop or smart phone but rest do not. This created digital divide. Schools not provided resources to teachers for online education. Teachers have to use their own resources like own data and own mobile/laptop. Some teachers faced internet connectivity issue because of their location. These non-academic factors played role to increase the digital divide.

Teaching becomes one way interaction due to the technical barriers; two way communication was a failure. "Am I audible?", "Am I visible", "Is screen is visible to you?" Became the mostly used phrases. Teacher's questions and students answering these activities were having lots of problems e.g. breaking of the voice, non-audibility of the speakers, mute-unmute issues, fake attendance of the students etc. Parents interfere in teaching is one raising issues in online education. Parents' objection on teaching style, communication, language, nature of examples, use of variety of media, quality of technology etc. Some of them started giving suggestions to teachers for improvement, some started making complaints to the principals, some making fun and laugh on teachers in front of the students and making negative comments leaving negative impact on teachers' confidence and self-esteem.

In spite of better teaching skills, teachers are not able to deliver at their best because of technical issues that causes the loss of confidence in self-ability. They started judging themselves and their teaching skills and teaching ability not on the basis of overall teaching skills but merely on technical skills which affected the quality of overall teaching.

Because of less interaction with the students teachers not are not able to understand the status of students understanding hence they're not able to build new knowledge on old knowledge. This gap between the previous knowledge and new knowledge then through the failure of the teaching. What teachers are expecting and want students are expecting was two different points that causes the effectiveness of teaching negatively.

3.8 Impact of code 19 on Evaluation:

Due to COVID19 pandemic lockdown, online education started although online learning and teaching is easier but online evaluation is a big challenge. In the formative assessment during teaching and learning process the evaluation is not possible because of technical difficulties. Even though teacher want to interact, want to ask questions or ask to participate in the classroom, all students are not able to interact due to technical difficulties like poor internet connectivity from both side. So evaluation during teaching and learning was very difficult is very difficult.

In summative evaluation like periodic test unit test is difficult to organize online examinations having lots of questions. The authenticity and objectivity of the online examination is questionable. Technical difficulties black lack of training, none of ability of competent devices, Internet connectivity etc. created many obstacles in evaluation process so the synchronous examination conditions are not suitable for the evaluation. Asynchronous evaluation like submissions or practical assignments is the best way in online education because it gives sufficient time to students and teachers for downloading and uploading. Even though how to cheque online assessments and assignments, how to make marking on the assignments and how to return it to the students were the major concerns for the teachers.

Due to the code 19 evolution become more subjective and list object if because of that evaluation learning is not properly evaluated and fails to give proper an exact status of the learning for students, parents and teachers.

Google forms are being used where MCQs are asked and some descriptive questions too. MCQ remember only we for online evaluation which is easier for the students to answer and difficult for teachers to frame questions. Most of the MCQs generally are based on the factual information which targets understanding and remembering objectives based on memory. Descriptive questions that targets higher level objectives like application, analysis, synthesis, evaluate, attitude, etc. The construction of application level MCQs creates ambiguity and subjectivity and difficulty for the students to select the right choice. This situation creates a chaos and cause of conflict between parents, students and teachers. To avoid this conflicts teachers were forced by the situation to frame the easier questions for better results we do not target the higher level thinking skills and so students were on lower level of the content only. One of the challenge is how to evaluate students with different learning level. Due to the technical and other reasons all students do not get equal opportunity to learn. So how to make evaluation making justice to all students having different levels of learning, was unanswered.

3.9 Impact of Covid-19 on Administration:

Administration played important role in the pandemic lockdown. They coordinated all the process is to require online education. Due to COVID-19 disaster administrator learn to be proactive they have to follow all the SAP. They learn to work online and coordinate among all the stakeholders of education. They followed all the instructions of government and peculated for the all stakeholders of education. The administration is led by ahead of the Institute. Their responsibility to take the consent from the parents to make the preparation of the students Anne to provide the training and devices and skills to the teacher required for online education.

3.10 Impact of Covid-19 on Extension:

Extension means taking education beyond classroom and beyond students. Extent of education from educational institution to society. COVID-19 has given opportunities to perform an extension activity. Many extension activities were carried out in the pandemic lockdown. Many seminars and conferences where organized for teachers, parents, administrators, students and public i.e. all the stakeholders of education. Lots of webinars were arranged freely free of cost for all the stakeholders to make them competent to face problems in education. Webinar enabled to have interaction with international and eminent experts. Webinars introduced lots of ICT tools for teachers, provided health related and technology related information to students and parents. Many webinars were conducted for teachers to make them enable to acquire various skills and tools useful for online education.

In the lockdown, all were sitting at home and they had time to learn. Many organizations and government, organized useful webinars to create awareness in society. Many webinars were conducted to give the psychological support to all the stakeholders of education. They helped to keep all the stakeholders positive and away from depression. Many online quizzes were arranged to spread the awareness about COVID-19 among the public. Many programmes posts, images, videos, webinars, sessions etc. were conducted to keep everyone positive an optimistic in the lock down. This is of the remarkable contribution of the extension activities to share knowledge skills an awareness in the society.

The response to various webinars was spectacular; thousands of participants were attending webinars s which was not possible in seminars. Zoom, Google meet, WebEx, Microsoft team etc. were used for extension activities although it was not sufficient; so live streaming method was also adopted to cope up the huge number of participants e.g. live streaming on YouTube and Facebook live. Social media was successfully used for extension activities by various stakeholders of education for to fight against COVID-19 virus social media platform provided solid foundation in the face against COVID-19 in the war of human race against COVID19 virus.

3.11 New Normal in Education:

'Work from Home' and 'Online Education' was new experience in the education. This experience enhanced understanding of all stakeholders regarding learning, teaching and evaluation which created new normal in education. Some of the things which were not accepted before COVID19 now accepted as a normal thing e.g. use of mobile.

Teachers become more techno savvy due practice of online education in Corona pandemic lockdown. They acquired various his skills required for synchronous and a synchronous mode of online education. They are capable to create the content which can be used add the study material in online education. They know different I city tools to create a share he learning material. They understood the importance of online skill along with offline skills. Before COVID19 teachers were not that much techno savvy, they did not have that much exposure of technology. COVID19 provided opportunity for teachers to learn and use various ICT tools. In this process teachers become more confident about using ICT tools for learning, teaching and evaluation. Teachers also understood how to do classroom management in online mode they got the experience of student behavior in online mode.

Initially when online education started students were more techno savvy than teachers. On the basis of experience teachers started understanding technological settings of different ICT tools to control students' mischievous behavior. They also understood the students behavior in online education, for example in live classes, after making video off students were not attending a class. After realizing this behavior teacher started asking question to students to check whether they are attending the classes or not. When students understood this they become more attentive. Teachers learned how to keep engaged students in a class. In the new normal when school will reopen teachers will be more competent teachers with the help of online teaching skills. They will enjoy more the interaction was with the students which was missing in the offline education.

In the new normal after reopening the school student will enjoy to meet the friends and to interact with the teachers in the classroom. They understood various obstacles in the learning process in online mode. They come to know the importance of teachers unlike classroom sessions where they can ask the queries to the teachers without any technical barriers and they will get dancers from the teachers at the same moment. Because they are facing many technical difficulties to interact with the teachers and to understand the content in the new normal situation they will become more interactive serious and cooperative with the teachers.

In the new normal evaluation process would be more refined. Various different tools of online evaluation have been used and experienced by teachers and students so they have understood the advantages and limitations of it. In the new normal there will be combination of online and offline evaluation tools depends on the types of evaluation.

To accommodate the online mode of education; schools need to prepare for sufficient infrastructure. Management needs to give proper training for the teachers for advanced teaching and learning ICT tools.

They also need to provide possible support to the students and parents to enable them for online education. Whenever the situation is there that students or teachers cannot come to the schools due to some natural disasters or man-made disasters online education online class would be an effective alternative for it.

Present curriculum is made only for a specific mode of learning and teaching that is offline mode. In the new normal, curriculum should be made flexible to adopt the online and offline mode of teaching education. Some activities, modules, subjects, credits of a curriculum can be kept for online education in optional mode. This alternative will make teachers and students ready for any kind of situation where only online education possible.

Teachers have prepared lots of e-content during COVID19 pandemic lockdown for online education that can be reused and refined. Many schools and teachers created YouTube channels, developed websites or created tailor-made platforms suitable for online education that can be used continuously further as an alternative for offline education. Because parents and students and teachers are familiar to use the technology in education; it has opened a horizon of lots of new opportunities in education which will definitely reform the education; hopefully for the betterment of the learning.

Blended approach of education will be the highlight of new normal education. Blended approach indicates the combination of online and offline mode, traditional and technological mode. All the process in education like learning, teaching, evaluation, administration etc. will be having balanced use of technology and traditional ways e.g. now seminar and conferences can be allowing both mode of attendance i.e. online and offline. Previously online attendance was not acceptable. In the new normal of education online education will be integrated part along with the offline education. Wherever possible technology can be integrated with the traditional schools because teachers, students and parents are technologically prepared for it.

3.12 Conclusion:

In spite of many negative impacts of Covid19, there are some positives called new normal. The importance of health and medical services, cleanliness, use of technology for daily life, importance of social interaction, importance of live interaction, importance of family, society, friends, preparedness for disasters, importance of technology to carry out various activities from distance etc. aspects are revised in the shadow of Corona virus. It has shown work from home can be possible effectively.

It also highlighted the Digital Divide in society. People lose their jobs. People who were depend on daily badges, faced biggest starving phase of life. People with good economic conditions, enjoyed lockdown by making and sharing new dishes. On the other hand many people served for the people not having enough resources to survive. Lots of human stories based on humanity are coming out spreading the humanity in the society across various regions caste and religion. Government played important role. Central government and state government shown Great Spirit to protect people from corona virus. They made all possible efforts to provide medical facilities to the people.

Education is not away from the impact of Covid 19. Educational institutions were closed but education was going on. In spite of lots of obstacles all stake holders came together and faced to Coid19 disaster successfully. They tried everything in minimum resources and without preparedness.

COVID-19 has left huge impact on human life. It has exposed the limitation of medical science and governing system of states. It has proven that nature is always greater than human. A tiny virus had challenged the human brain which shown how nature is complicated and revolving. COVID-19 has taken many lives around the globe across various countries, religions, regions, language, gender etc. It has lived and negative impact on the human life in the form of loss of lives, jobs, economy etc. This experience is lifetime experience for all the stakeholders of education. Covid-19 given a message to us to human race that if you want to survive successfully technology and human efforts should go hand in hand for better future!

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