Effects of COVID-19 period on educational systems and institutions

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Abstract

The COVID-19 is currently having a serious impact on the business organizations and the lives of people; and influencing the supply chain due to worldwide lockdown. The governments and medical department do not have any specific plan and medical support to control the pandemic. The educational system and institutions are going through a tough time in order to maintain the educational activities as the immune system of children and students is weak, which might affect the health badly. The study investigated the impact of COVID-19 period on education systems and institutions. For this purpose, the data were collected through a questionnaire responded by 50 participants (teachers and students). The participants were selected using the non-probability sampling method. The results revealed that there was a negative impact on an educational system like loss of human resources, investment for developing the online system for smart classes and providing the data and information using the technology.

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1. Introduction

The COVID-19 pandemic has affected the whole world and influences the various sector for longer period of time. It will be difficult for businesses to operate in such an environment where the demand will be low due to the change in the social environment. The medical authorities in different nations have not found the appropriate way to overcome the impact of this issue. The cases of COVID-19 are breaking the record every day and increasing the problems for the world and raising many questions for businesses, education, agriculture, import-export and supply chain at the local and global level (Casero-Ripollés, 2020). The virus is attacking people most with a weak immune system or having some critical disease already. The lack of treatment options and the shortage of medical and protective kits are harming the process of maintaining stability in business and other sectors. The COVID-19 is having a significant impact on all sectors of societies at the international level, and people are facing a very tough time as it has blocked all the economic, social, educational and business sectors. It is a very difficult time for the educational institutes to commence sessions and parents to send their children to schools, college and university to continue the education and complete the courses (Vladescu, 2016).

COVID-19 Pandemic can affect the children largely as less understanding about the concept of social distancing is a serious issue for educational institutes as well as for parents. Commencing the educational institutes at this point of time is a risky affair, especially when the number of cases is increasing, and the medical department has not confirmed any vaccine or impactful treatment for COVID-19. Therefore, analysis and planning of future actions for managing the education system and implementation of changes in the approach of educational institutions are essential (McKibbin and Fernando, 2020). The governments of nations are helpless and searching for the treatment options, protecting measures and anti-dotes of the virus that is affecting the human life badly. Education and learning are one of the major needs of societies, and due to this pandemic issue, the teachers and students are facing a tough situation to continue their courses. Approximately 1.726 billion learners in the world are currently affected due to school closures in response to the pandemic. As per the UNICEF data, more than 134 countries have implemented nationwide closure, and that is having a negative impact on the offering of courses and completion of degrees and class activities (Rundle et al., 2020).

The current position of the world is very critical in this scenario as no one knows about the transmission of the virus and how it might be stopped. According to Currie et al. (2020), COVID-19 is one of the most critical challenges for mankind and affecting global health after the 2nd World War. This infectious respiratory disease emerged in Wuhan, China, and the World Health Organization (WHO) has named it corona virus. The current outbreak of diseases has affected more than 2.164.772 people in the world and killed 146.822 people in 200 countries. Till now, there is no report of clinically approved

antivirus drugs or vaccines that are effective against COVID-19. The situation of the world is getting worse with the spread of this virus and creating challenges for the health system, economy, environment and social life of the entire population. WHO and leading nations are searching for drug or any clinical approach to cure the patients and control the spread of the virus (Sintema, 2020).

The business organisations are facing a tough time too as supply chain, production and demand of the products and services are very low, and people do not have enough income as companies are not offering full salaries due to lockdown. Apart from this

Vladescu (2017) has analysed that, the lack of medical assistance for protecting from the attack of the virus will have more impact on the future activities of businesses, education centres and import-export trade among the countries. The leading medical and research organisations are working on the project to develop the anti-dotes, but it will take time. The lack of proper measures and treatment will increase the pressure on national governments to provide economic and social support to the population. However, the world is having technology and supremacy of modern means of communication through the internet but lacking in developing the medicine for this virus.

The corona virus attack has a significant impact on the education system and structure as a lack of operational activities, and closure of educational institutions has affected the progress. As per the views of Van Lancker and Parolin, (2020), the parents and national governments are keen to protect the people and working on the plan to manage the operations. The virus is attacking people, who are suffering from serious disease like blood pressure, diabetes, cancer, tuberculosis. COVID-19 is attacking the respiratory system of people who are having a weak immune system. Moreover, children and adults do not have a strong immune system and understanding of social distancing and following the rules to protect themselves. Therefore, this virus can attack their body easily. The nationwide closures are impacting over 60% of the world students. The leading universities of UK, Australia, USA and Canada are highly depended on the movements of students from China and India. The restrictions for cross-boarder as well as internal movements harm the financial operation, administrative action and offering of the learning.

In addition to this, many parents will avoid sending their children abroad for higher education due to the high risk of virus attack in the coming years. According to Ho, Chee, and Ho (2020), the sudden shift to online learning will be difficult for the developing and underdeveloped countries and educational authorities due to lack of infrastructure and planning for the format that suits the new approach. The teachers and students are not familiar with the equipment and process of online learning due to lack of technical understanding.

The educational institution will be going to face various issues related to managing the learning activities and engaging the students. As per the views of Karalis (2020), the online learning is special kind of methodology and will have lack of acceptance from teachers and students as all are not ready for the sudden transition from classroom learning to online. The online platforms like Skype, Zoom and Google Duo are not sufficient for offering the learning and engaging the students. The lack of internet facility, devices and environment for online learning from home or other places will hurt the learning approaches of institutions and influence the knowledge of the students to understand the concepts and content of the course.

Apart from this, Vladescu (2016) has identified some opportunities for educational institutions for further improvement in the system for offering the learning. According to analysis, online learning will rise blended learning and develop the new norms for the learning management system. The universities and colleges can shift towards the model of blended learning and offer education through online tools which will be cost and time effective for both teachers and students. However, teachers have to take training for understanding the technical approach and become technology savvy.

The study aims to identify the negative and positive effects of COVID-19 on the educational system and institutions.

1.1. Objectives

- To understand the seriousness of COVID-19 on mankind
- To analyse the effects of COVID-19 on the educational system
- To identify the changes and opportunities for institutions due to COVID-19

1.2. Research Questions

- What are the negative impacts of COVID-19 on the educational system?
- How is it affecting the approach of educational institutions?
- What are the major changes that can arise in the educational system and functions of institutions?

1.3. Problem Statement and Sub-problems:

The world is facing serious issues due to COVID-19 pandemic that is influencing economic, social and lifestyle of the people. The educational system and institutions are affected by the issue badly as classroom activities are stopped due to nationwide closure. The spread of the virus is increasing and having a significant impact on economic and educational activities. The research analyses the negative and positive impact of this pandemic issue.

The research is focusing on issues of COVID-19 on the education system and institutions. This is a very serious issue as it is not only affecting the students but also the teachers and families. Moreover, it will have far-reaching economic and societal consequences, including student debt, digital learning, food insecurity, housing and internet. Now, the research about issues related to effects of this pandemic on the whole education system and institution will help to improve the understanding of the short and long term issues as well as approaches that could be used for overcome and help in managing the effectiveness for professional learning.

1.4.   Research Methodology

The research required a systematic flow of the actions that help to improve the effectiveness of outcome and achievement of the objectives. To develop the systematic approach, there are two types of philosophies used, interpretive and positivism. For current research related to the analysis of the impact of COVID-19 on the education system and institution, the researcher has selected interpretive research philosophy. By considering this philosophy, the researcher has collected and analysed the different opinions of respondents and identifies the key actions to improve the situation. Apart from this, interpretive philosophy has helped to maintain openness (Kumar, 2019).

Deductive and indicative research approaches are used for gaining an understanding of the variables of the study and maintaining the flow of the analysis. For conducting current research, the researcher has applied the indicative approach that also supports in increasing reliability and validity. By implementing this approach, the researcher has collected data for the analysis of the impact of COVID-19 on the educational system and institution using the questionnaire method (Fletcher, 2017). This was cost and time effective and eliminated the issues related to the privacy of the respondents.

The strategic approach of the research study is developed by applying the appropriate design. For achieving the proposed outcome, the researcher could apply the exploratory, descriptive and casual design. The current research is based on data collected from the questionnaire and to analyse the impact of Covid-19 on the educational system, the descriptive design was useful. This kind of design has helped to analyse and social, economic and technical aspects of the COVID-19 on the institution and support in gaining the in-depth knowledge of issues and potential barriers in the offering of online learning and changing the existing classroom approach of study (Wiek and Lang, 2016).

According to research methodology functions, to research in a professional manner, two types of study have been followed that involve qualitative and quantitative. For the current research, the researcher has applied descriptive design and collected the data using the questionnaire method. Therefore, the study was based on the quantitative type and helped to meet the objectives of the study (Mohajan, 2018). By using this type, the researcher has made emphasis on direct and indirect factors that might influence the

educational system and approaches of institutions due to outbreak of Covid-19. It has also supported in analysing the different variables for identifying the impact on online learning due to changes in economic, demographic and employment level of the people.

1.5. Sampling

Sampling was done using the non-probability method as the researcher has chosen the sample of students and teachers from the entire population according to own connivance. For the current research, the researcher has selected a sample of 50 respondents and shared the questionnaire to gain knowledge of their opinion for analysis of the impact of COVID-19 on educational system and institution.

1.6. Data Collection

The collection of data for the present research was done using the primary method as the researcher has applied descriptive design, quantitative type and indicative approach. As indicated before, the questionnaire method via e-mail was used in order to collect the data. Now, the collection of data by using this approach will be less time consuming as the researcher has shared the questionnaire through email. Moreover, the use of the questionnaire method has increased the reliability and validity of the outcome of the research (Ørngreen and Levinsen, 2017). The data was collected from Turkey's learning management system, Eğitim Bilişim Ağı. The researcher has taken prior consent from the respondents for participation in the research. The permission was taken from the related department of Ministry of Education in Kahramanmaraş province.

1.7. Reliability and Validity of the Study

To maintain the reliability and validity of research, the researcher has asked questions related to the subject matter and eliminated the wrong responses. To improve validity of the study, the views of academics from the Kahramanmaraş Sütçü İmam University were gathered. Moreover, to improve the validity of the study, the researcher has collected the data from authentic sources and managed the analysis in proper ways. Descriptive and content analysis were used to analyze the data. Calculated according to Miles and Huberman (1994)'s formula, the reliability of the data was found 85%. Moreover, the researcher has focused upon ethical standards of study such as privacy of the respondents, manipulation of the data and ensured that no data had been taken as plagiarised. This kind of approach has improved the effectiveness and validity of the research for analysing the impact of COVID-19 on the educational system and approaches of the institutions.

1.8.   Analysis Technique

It is an important part of the research, and the researcher has analysed the data by using the thematic analysis method. According to this method, the researcher has done the frequency distribution and analysed the response of respondents by developing the graphs and tables. This kind of approach has helped the researcher and readers of the study (Cuervo-Cazurra et al., 2017). The thematic analysis has also improved the reliability and eliminated the biasness in the study.

2. Results

To protect the people, social distancing and isolations are major things, but it is having a significant impact on the educational system as physical appearance is required for offering knowledge through classroom activities. The institutions are not allowed to take classes and gathering of the students. This kind of situation is creating issues for the educational system to maintain the flow of courses and activities of learning and sharing the knowledge to students. The low attention of parents for online learning makes it more difficult for the teacher to offer to learn to the 4-10 years old children. Moreover, some of the parents are not financially strong to set the digital learning system for attending online classes. Lack of devices and internet facilities is also creating issues for offering knowledge and information about the course. The online learning is a good option, but for small schools and universities, it will be difficult to retain the students as passive learning can be done from leading and reputed institutions.

The researcher has collected data from 50 respondents that involved people from different age groups and occupations. According to table 1, 20% of respondents were aged between 20-25 years, 40% were 25-30 years, 40% were 30-35 years, and 20% were above 35 years. Moreover, 70% of respondents were male, and 30% were female.

Table 1. *Opinions of the participants for COVID-19 being a critical issue for humankind.*

IQ	Themes / Categories	f	%
Critical issue for humankind	Impact on the lifestyle and economic activities	20	40
	Affecting the economic, social and environmental actions	15	30
	Not an issue for social distancing and follow-up of protecting measures	10	20
	Disagreeing all	5	10

In the current scenario, COVID-19 has become a critical issue for society in terms of continuing the routine personal as well as professional lives. According to analysis, 40% of respondents were agreeing that COVID-19 is having a serious impact on the lifestyle and economic activities of people. 30% of respondents were strongly agreeing that COVID-19 is influencing mankind and affecting the economic, social and environmental actions. However, 20% of respondents were disagreeing that COVID-19 is not a serious issue as social distancing and follow-up of protecting measures will be helpful to overcome the impact. Moreover, 10% of respondents were strongly disagreeing. Apart from this, 100% of respondents have considered that COVID-19 has affected the businesses and other sectors badly and having a direct impact on the social life and economic actions of individual and organisations.

Table 2. *Opinions of the participants for the need of changes in education system.*

IQ	Themes / Categories	f	%
Need of Changes	implement changes in the education system	45	90
	not wishing to changes the existing system of education	5	10

The educational system has also got affected by the COVID-19 and will have long term impact. According to table 5, 90% of respondents agreed to implement changes in the education system. However, 10% of respondents were still not wishing to changes the existing system of education.

Table 3. *Opinions of the participants for online learning as an alternative.*

IQ	Themes / Categories	f	%
Online Learning	in favour of developing and promoting online education system	45	90
	not in favour of changing the existing approach of education	5	10

The online learning system is a good alternate for maintaining the study and planning the future learning approach. According to an analysis of data collected from respondents, it has carried out that 90% of respondents are in favour of developing and promoting online education system. However, 10% of respondents were disagreeing and not in favour of changing the existing approach of education.

Table 4. *Opinions of the participants for promoting online learning.*

IQ	Themes / Categories	f	%
Promoting Online Learning	promoting the online teaching in this period using the internet and technical devices	50	100

Educational institutions have to promote learning through online mediums that will help to maintain the flow of education and support in generating income. 100% of respondents were agreeing for promoting the online teaching in this period using the internet and technical devices.

Table 5. *Opinions of the participants for benefits of online learning.*

IQ	Themes / Categories	f	%
Benefits of online learning	in favour of using online resources of promoting the learning to overcome the impact of COVID-19	40	80
	not agreeing for managing the learning system through online	10	20

Moreover, online learning will be beneficial for students and teachers also as it will help to engage both and maintain educational flow as per the schedule. 80% of respondents were in favour of using online resources of promoting the learning to overcome the impact of COVID-19. 20% of respondents were not agreeing for managing the learning system through online as it will increase the financial pressure on lower-middle-class parents to develop infrastructure.

Table 6. *Opinions of the participants for having long term impact.*

IQ	Themes / Categories	f	%
Having long term impact	setting new trends for managing the study	45	90
	not setting new trends for managing the study	5	10

The proposed changes in the educational system will help to manage the learning as it will have a long term impact. 90% of respondents considered that the online system would help to set new trends for managing the study. 10% of respondents did not agree for it.

3. Discussion

The governments are working on isolation, quarantining the suspected person through tracking the contact person and not allowing the large gathering. These approaches are helping some extent, but it is not the permanent solution for managing the social and economic conditions of the world, as mentioned by McKibbin and Fernando (2020). Our findings have revealed that other than these steps, there is a need for taking actions on the ground of educating people through online platforms. The lockdown and closure have affected the employment level, as well as many companies, has deducted the salaries of employees which creating more pressure on humankind to maintain the lifestyle and pay the fixed amount for maintaining the daily needs. Our findings have also stated that the negative impact of COVID-19 has been witnessed on all sectors and industries which definitely create a dearth of new employment opportunities. The education system requires changes and implementation of online tools and technology will be beneficial. The online classes and sharing of lecturer notes and data using the online platforms will be effective for maintaining the flow of the education system. The same kinds of findings are revealed in our research where the significance to educational institutions is given highly. As per the analysis, there will be good opportunities for

institutions that are offering the distance learning programs can promote it for further system development and sharing the approach of maintaining the services. This kind of process has the potential to grow and offer education for all type of students from lower standards to higher education, as stated by Vladescu (2016).

Moreover, the study has analysed that the rise in collaborative work by taking the help of communities at a large extent will be beneficial for the institution to promote learning through the new system. The modernisation of the education system is essential, and for the implementation of new technology, this is the right time. Apart from this, the study has found out the challenges for institutions like the absence of a uniform and centralised online system for all type of institution is affecting and the development of such a system will take time as per the viewpoint of Sintema (2020). In our research findings, high numbers of respondents have shown confidence that such changes in the educational system could be good for the students as well as teachers and long term positive impacts can be witnessed. For developing countries and underdeveloped nations will be very difficult to establish such infrastructure in the coming years as the economic condition of countries are under pressure. The lack of funding and expertise in rural areas will influence the approaches of institutions for implementing the online education plan.

4. Conclusion

From the research, it has carried out that COVID-19 is having a serious impact on the businesses and other sectors. The research has identified the impact of this pandemic issue of the education system and approaches of the institutions for offering the learning through other mediums. According to the study, people are facing serious issues related to learning and looking for new approaches to learning. The leading authorities have to consider the seriousness of the issues and have to take the corrective measure for improving the situation that will help to normalise the things and support in enhancing the living experience. The lack of technical understanding of students and teacher is also a big challenge for the system to offer training and support. The proper implementation of rules for social distancing and sanitising will also increase the operational cost of the institutions. Moreover, the sudden shift to online learning will be difficult for the countries and educational authorities due to lack of infrastructure and planning for the format that suits the new approach. It becomes difficult for the educational institutions to maintaining the operational cost and retains the students.

For the betterment of the educational system and approaches of institutions need changes. To maintain continuity in learning and to share the knowledge with the students, it is recommended to the institutions to adopt the technology and engage the students in learning. The implementation of smart learning tools like Padlet and Edmodo can be used for offering the learning. By offering the training to the staff members and collecting the feedback from the parents related to the online system will be useful for the

educational institution to overcome the issues related to take classes and engage the students.

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References

Casero-Ripollés, A., (2020). Impact of Covid-19 on the media system. Communicative and democratic consequences of news consumption during the outbreak. Casero-Ripollés, Andreu (2020)."Impact of Covid-19 on the media system. Communicative and democratic consequences of news consumption during the outbreak". El profesional de la información, 29(2), p.e290223.

Cuervo-Cazurra, A., Mudambi, R., Pedersen, T. and Piscitello, L., (2017). Research methodology in global strategy research. Global Strategy Journal, 7(3), pp.233-240.

Currie, C.S., Fowler, J.W., Kotiadis, K., Monks, T., Onggo, B.S., Robertson, D.A. and Tako, A.A., (2020). How simulation modelling can help reduce the impact of COVID-19. Journal of Simulation, pp.1-15.

Fletcher, A.J., (2017). Applying critical realism in qualitative research: methodology meets method. International journal of social research methodology, 20(2), pp.181-194.

Ho, C.S., Chee, C.Y. and Ho, R.C., (2020). Mental health strategies to combat the psychological impact of COVID-19 beyond paranoia and panic. Ann Acad Med Singapore, 49(1), pp.1-3.

Karalis, T., (2020). Planning and evaluation during educational disruption: lessons learned from COVID-19 pandemic for treatment of emergencies in education. European Journal of Education Studies.

Kumar, R., (2019). Research methodology: A step-by-step guide for beginners. Sage Publications Limited.

McKibbin, W.J. and Fernando, R., (2020). The global macroeconomic impacts of COVID-19: Seven scenarios.

Mohajan, H.K., (2018). Qualitative research methodology in social sciences and related subjects. Journal of Economic Development, Environment and People, 7(1), pp.23-48.

Ørngreen, R. and Levinsen, K., (2017). Workshops as a Research Methodology. *Electronic* Journal of E-learning, 15(1), pp.70-81.

Rundle, A.G., Park, Y., Herbstman, J.B., Kinsey, E.W. and Wang, Y.C., (2020). COVID- 19–Related School Closings and Risk of Weight Gain Among Children. Obesity.

Sintema, E.J., (2020). Effect of COVID-19 on the performance of grade 12 students: Implications for STEM education. Eurasia Journal of Mathematics, Science and Technology Education, 16(7), p.em1851.

Van Lancker, W. and Parolin, Z., (2020). COVID-19, school closures, and child poverty: a social crisis in the making. The Lancet Public Health, 5(5), pp.e243-e244.

Vladescu, I (2016). Models of Qualitative Changes in Academic Education, in Indian Journal of Applied Research, Volume 6, ISSN: 2249-555X, March 2016, pag. 239-244

Vladescu, I (2016). The teachers training for intercultural education, in Asian Academic Research Journal of Social - Science & Humanities, Volume 3, February 2016, ISSN: 2278-859X (online), pag.222-227

Vladescu, I (2017). The Impacts of Using ICT in the Educational Proces Today, Volumul Conferinţ ei GIDNI 4 Globalization. Identity, Nation and Dialogue / ed.: Iulian Boldea, Cornel Sigmirean - Târgu-Mureş : Arhipelag XXI Press, 2017 ISBN 978-606-8624-01-3 (C) Arhipelag XXI Press, 2017 (Sesiunea Comunicare), Volumul IV,, Universitatea Târgu – Mureş , pag. 217-221,

Vladescu, I   (2017). PARADIGM, KEY-CONCEPT OF EDUCATIONAL THEORY AND PRACTICE accepted by the committee to present as ORAL to the 3 rd International Conference on Lifelong Education and Leadership for All-ICLEL, September 12-14, Porto,

Wiek, A. and Lang, D.J., (2016). Transformational sustainability research methodology. In Sustainability science (pp. 31-41). Springer, Dordrecht.