

The Effect of the Corona Virus Disease of 2019 (COVID-19) Pandemic on the Learning Situation

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Abstract

The global pandemic of Corona Virus Disease of 2019 (COVID-19) adversely affected the various aspects of human life. There was a severe impact of the COVID-19 pandemic in the academic years 2076, 2077, and 2078 BS in the Nepalese education system. Though other sectors of the nation have been affected by such a pandemic, significant influence of it has been seen in the education sector. In this regard, this paper aims to explore the effect of the Corona Virus Disease of 2019 (COVID-19) pandemic on classroom instruction and to find out the challenges of virtual and face-to-face modes of school education. This research work follows qualitative design. Purposive sampling method was used to select the participants and the data were collected through open-ended interviews, observation checklists, and focus group discussion. The analysis has been made in thematic way following the rigor of qualitative research. The study shows a great effects of the Corona Virus Disease of 2019 (COVID-19) pandemic on the school education of Gorkha municipality. The virtual mode of instruction has been seen less effective during COVID-19 pandemic situation in the study area. Physical classes were effectively conducted before and after the pandemic. Several challenges have been noted in the virtual mode of instruction. They include the lack of internet access, limited access to electronic devices, and a lack of electricity in the district. The findings of the study entail that the blended mode could be more suitable to the students studying in the schools of Gorkha Municipality which could create opportunities for face-to-face and virtual learning together if they can be supported with easy access to the internet and electronic devices.

Keywords: Blended approach, COVID-19, Digital divide, ICT, Learning Situation, Post- COVID, Shifting paradigm

Introduction

The Corona Virus Disease of 2019 (COVID-19) pandemic emerged with a cluster of cases of 'viral pneumonia' in 2019 in Wuhan of China and respectively it entered into the southern countries along with Nepal. It has significantly influenced various aspects of human life. The world has been affected by this pandemic from 2019 to date. According to a United Nations Scientific and Cultural Organization (UNESCO) report, 1.6 billion children in 191 countries have been severely affected by the temporary

closure of educational institutions (cited in Dawadi, Giri & Simkhada, 2020). In the case of the education system of Nepal, various schools and academic institutions were closed due to this pandemic. The teaching and learning processes of the institutions were temporarily shut down. All the sectors like business, finance, real estate, infrastructure, and manufacturing, including education were not left behind by this pandemic in Nepal. It was a significant loss to the academic sector in the recent decades.

During the period of COVID-19 pandemic, Nepal practiced virtual mode of instruction in the academic sector. At the school level, it was not fully accessible to the learners. Almost all students in the school were absent during this period due to a lack of internet access, digital learning devices, electricity, and other supporting technology. In the country, digital and mobile technologies combined with some traditional technologies, e.g., radio and television, to provide at least some form of educational continuity, but that was not the ultimate solution. There were fast practices held in the world, but in the case of Nepal, the government made a slow start in its response to the spread of the virus despite its rapid distance in many countries, even in neighboring countries like India and Bangladesh. Though the beginning of the alternative modes of schooling was slow, it was an effective mode of schooling when the education sector was disrupted.

As a consequence of the lockdowns, schools, and academic institutions have been closed for about two months in the country. In the second week of May 2020, the United Nations Educational Scientific and Cultural Organization (UNESCO) estimated nearly nine million (8,796,624) students in Nepal were affected due to the closure of academic institutions. Out of this number, 958,127 (11%) were in pre-primary, 2,466,570 (28%) were in primary, 3,463,763 (39%) were in secondary and 404,718 (5%) were in tertiary education (Dawadi, Giri & Simkhada, 2020). In such a troublesome situation, most institutions have explored the alternative mode of schooling. It was a challenging task to provide access to digitalized technology all over the country, but some techniques were used, including traditional and modern, and the schooling system was run in an alternative mode. In the urban area, many academic institutions have provided proper access to digital technology. Still, in the rural areas of the country, it is poor. In those places, mobile schooling and community schooling programs were conducted. It is a new practice in the country, which has provided an alternative way of thinking, teaching, learning, and doing something in difficult situations.

When schools were closed and the face-to-face mode of schooling was stopped in the schools, the children were away from school and the former community was divorced. The effect of the school closing circumstance was felt at that time, i.e., it took place within the homes and the residences of the students (Mahboob, 2020). Society was seeking an alternative way of learning, but human preservation was the major task. The

teaching and learning system; the effect on the assessment system; the high drop-out rate; mental health; and so on were the major concerns about the effect of COVID-19 pandemic on school education. So, the effect of its on school education was worse, which means it takes a long time to recover from its regular track. The schooling system was disturbed in the country, along with the world. Fewer studies are done related to this topic as I came to hear from the informal conversation with school teachers. So, this article has explored the actual condition of the teaching and learning process at the time of COVID-19. It has discussed the questions: what was the major impact of that pandemic on the learning system and what is the present situation of the teaching and learning system in the post-COVID-19 pandemic. Concerning to the questions, this study aimed to explore the effect of the COVID-19 pandemic on classroom instruction and to find out the challenges of virtual and face-to-face modes of school education.

Review of related literature

There are a few research reports related to the effect of the COVID-19 pandemic on school education. The World Health Organization (WHO) announced the COVID-19 outbreak as a pandemic on March 11, 2020 (WHO, 2020). The first case of COVID-19 was confirmed in Nepal on January 23, 2020, in a 31-year-old college student who had returned from Wuhan, China (Bastola, et.al., 2020). In the period of the COVID-19 pandemic, many countries used a combination of containment and mitigation activities such as contact tracing and self-isolation or quarantine (K.C., 2020). Though remedial measures have been implemented in the country, COVID-19 has affected every sector, including education.

There exist national and international efforts to minimize the effect of such a pandemic in the academic sectors (Dawadi, Giri & Simkhada, 2020). To minimize the effect of COVID-19, technologically advanced countries like France, Germany, Australia, the UK, and the USA have adopted their e-learning platforms (Moodle, LMS, cloud, system, etc.) to create common distance learning center portals and provide students access to e-content and repository through mobile devices (Azzi-Huck & Shmis, 2020). All the stakeholders-institutions, teachers, publishers, and parents in these countries have joined hands to create digital resources. In the context of Nepal, the government of Nepal has announced the different patterns of virtual learning, i.e., access on the internet, without access to the internet, community contact centers, distance mode, etc. This situation has created an environment of using alternative ways of instruction and it is hybrid or blended (Khanal, 2021).

According to Pandit (2020), only 13% of schools might be able to run online classes (though 35% of schools have access to the internet in Nepal (Pandit, 2020). The current ICT infrastructure and the distribution of access in the urban and rural areas have created the digital divide, or two-tier inequalities, in the Nepalese citizenry (Kantipur News, 2020). The present scenario indicates that students in Nepal are affected differently by

the COVID-19 pandemic. It is estimated that only 56% of people have access to the internet in Nepal. In the case of students of private schools, the human rights commission in Nepal has requested the Ministry of Education, Science and Technology and private schools not to pressurize children in the name of online education (ibid.). The community schools of the country also face the problems of student drop-out, assessment system failure, and learning and skill development practice through the school. Private schools have faced many more issues than that of the community schools. The more extended schools are closed, the more drop-outs occur from the pandemic in the country (Buckler, et.al. 2020). So, in the context of Nepal, students' drop-out rate is increasing mainly for two different reasons. First, many parents have lost their jobs due to the pandemic, and their economic crisis has worsened more than ever before. Secondly, Nepal's economy is mainly dependent on foreign employment, which has been directly affected by the pandemic. That's why the effect of the COVID-19 pandemic on school education is irrevocable and may take a long time to return to its regular track.

Operant conditioning theory argues that learning is the combination of stimulus and response in which reinforcement plays a vital role in the learning process to be permanent. Learning is a process of progressive behavior adaptation (Skinner, 1938). The behavior of an organism can be changed through stimulus, response, and reinforcement (Skinner, 1956). If an organism wants to learn something, stimulus, and response should be connected. The positive responses are strengthened by positive reinforcement, and the negative response can be minimized through negative reinforcement. Skinner has argued for contingency management in the classroom situation and even any place. Contingency management is a process of dealing with a difficult situation in which a teacher can easily use his/her ideas to solve recent problems. The shifting paradigm is a new task for a teacher in the classroom in which the teacher does work with new ideas except for classical ones. The face-to-face learning system is the traditional educational system. Still, due to the COVID-19 pandemic, virtual learning takes place all over the world. In this situation, the teacher can change his/her thoughts on instruction and implement the new idea in the classroom. Teachers have motivated students, specify behavioral objectives, manage critical situations, and implement new techniques, or methods of instruction, materials, and so on. They have used reinforcement schedules to change the behavior of their students. Skinnerian conditioning helps to identify the stimulus, responses, reinforcement, contingency management, motivation, and feedback processes. These activities are essential in a classroom that may be in face-to-face or virtual mode. This theoretical backup supports handling the changing learning context, i.e., during the COVID-19 and post-COVID-19 pandemic. This framework provides the real situation of the effect of the pandemic on school education, along with practices of the teaching and learning process before, during, and after the COVID-19 pandemic in the context of Nepal.

Methodology

This study applied qualitative design. The qualitative design explores and understands the meaning individuals or groups ascribe to a social or human problem (Creswell, 2012). In qualitative design, the exploration process involves emerging questions and procedures, data typically collected in the participant's local setting, data analysis inductively building from particulars to general themes; and the researcher making interpretations of the meaning of the data (Creswell, 2013). The sample size of the study included one principal, three subject teachers, and seven students of school of Gorkha Municipality who were selected by using purposive sampling method. The students, subject teachers, and principals of the selected schools are the population. The required information to fulfill the objective was collected through non-participant observation, semi-structured interviews, and focus group discussion (FGD). Firstly, interviews with a principal and three subject teachers were taken. Secondly, the observation was made using checklist and thirdly, the focus group discussion was conducted with seven students, and collected the data using video recordings. The video recording was made by taking consent with the participants. The information gathered from the participants was analyzed and interpreted by coding, categorizing and developing the major themes and sub-themes.

Results and Discussion

The results of the study have been discussed under the following themes:

Use of virtual pedagogy in inaccessible way

During the period of the COVID-19 pandemic, classroom instruction faced various problems, and such problems have affected the students' regularity in the classroom. Students discontinued their regular classes in school. In the Gorkha municipality, students faced problems with the internet, electronic devices, and materials in online classes, which affect the final result of their own. The government provided the virtual learning facilitation guideline 2077, but such a guideline has not addressed all the students of the municipality. Some students have been able to join in the virtual mode of instruction, but others do not have alternative ways to join the classroom due to the lack of internet access and electronic devices. A respondent (teacher) of a community school has argued that:

The virtual mode of instruction was rarely conducted due to the poor access to the internet and electronic devices in the community schools during the COVID-19 pandemic situation. Similarly, there were poor skills among the teachers who conducted the classes virtually. Most remote areas do not have access to the internet, mobile phones, computers, or any electronic devices. So, we have been unable to conduct the virtual classes. Only fewer achievements we got through the great efforts of the student's participation during the pandemic situation.

This is evidence of poor access to virtual classes during the COVID-19 pandemic situation due to different problems. Less participation in the virtual classroom has created an alternative situation in the learning process. Students have tried to understand the uses of electronic devices who have got but most of the students were absent because of the internet and the problem of electronic devices. In the pandemic situation, selected schools in the Gorkha municipality faced poor access to the virtual mode of instruction which has created poorer efficiency for students. During the period of the second lockdown, students were unable to participate in the virtual mode. Even though they had encountered such issues in the previous year, poor internet access and malfunctioning electronic devices meant that students were not properly enrolled in virtual classes which hampered classroom instruction. Operant conditioning theory has focused on contingency management which was done by the school administration during the pandemic situation but that was less effective in the case of the instructional process.

Learning without using materials

During the COVID-19 pandemic situation, the teachers were unable to demonstrate the instructional materials. It was too difficult to use the physical materials in the virtual classes. Electronic materials were unavailable to the subject teacher because of the improper training in conducting virtual classes. So, in the community schools of Gorkha municipality, there is poor use of materials during the virtual classes which hampered the instructional process. I have explored the information through FGD from students and they said:

We have not seen the materials in the virtual classes during the pandemic situation. The teachers have given just lectures on the content and the students were less able to understand how have attended the class but most of our friends were absent.

This evidence shows the lack of use of materials by the teachers during the pandemic situation. Without materials, the learning process is not inspiring. So, it affects the classroom instruction process.

Misuse of the devices

In the period of the COVID-19 pandemic situation, students also misused their devices, i.e., mobile phones, after classes. Students who have an appropriate device for virtual classes may also misuse the device. Students who did not have devices were absent from the virtual class. A teacher of a private school argued that:

Most of the students were absent from the virtual classes due to internet and device problems. Some students who have easy access to the internet and electronic devices have misused the devices. They have spent almost all of their time playing video games, such as Free Fire and Pubg. This type of misuse of the device also affects classroom instruction. Inside the classes, they have muted themselves and not concentrated on the learning process.

This evidence supports the claim of misuse of mobile phones and computers by students after virtual classes. There is no regular monitoring of students' homework and reading practices. The surrounding environment and the misuse of devices also affect the instructional procedure. During the pandemic situation, community schools have felt less stress compared to private schools because their jobs are secured by the government. In private schools, the job holder attempted to save his or her job through personal effort. This makes the instructional procedure different from the community schools.

In some cases, virtual classes are easy to take for the skillful teacher, but the achievement level is poor which is the byproduct of the instructional process. It is not inspirational and in this mode of instruction, the student's learning is poor. Sometimes the teacher does not evaluate fairly and they can provide grades (marks) in their subject haphazardly. This type of wrong practice in the evaluation system affects the academic future of the students. There is poor stimulus and response as well for the student's learning process during the pandemic situation.

Teaching and learning process during the COVID-19 pandemic situation

In the COVID-19 pandemic situation, the community and the private schools of Gorkha municipality have conducted the virtual mode of instruction. Even though basic-level students had limited access to the classroom, the instructional process was continued. The administration has facilitated conducting a community mobile class for the lower grades along with the virtual mode of instruction. Because of parental priority on electronic devices, secondary-level students have more access to virtual classes than lower-level students.

Teaching and learning process during the post-COVID-19 pandemic situation

When the lockdown was released, the schools were conducted in physical mode. At the beginning of physical class after the pandemic, safety measures were followed by the teachers, students, and their parents as well. After the vaccination program for adults, the schools run smoothly. The lower-grade children were given their vaccine after the adult-age vaccination programme. When the physical classes were run in the pre-COVID-19 pandemic situation, some of the students dropped out and discontinued their school education. Because of the loss of their parental temporary job, students have faced such a problem after the pandemic. The teaching and learning processes were better after the pandemic situation, and the student's achievement levels also increased. In the Gorkha municipality, all the schools have stopped their virtual mode of instruction formally and the classes are run in the physical mode. These days, the blended (virtual and physical) mode of instruction is being conducted at the secondary level, but till the basic level, the physical mode is being conducted. Skinnerian

conditioning is emphasized in the stimulus and response with the reinforcement process in the learning procedure. They have taken responsibility for the child in the classroom, they are inspiring the learners and facilitating their learning, and the learning process is successful while they have used reinforcement as a positive and negative reward. So the physical mode of instruction is better than the virtual mode of instruction in the schools of the Gorkha municipality.

Challenges in the virtual mode of instruction

In the virtual mode of instruction, school administration, subject teachers, and students have faced many problems. From the administrative perspective, lack of teacher training for the virtual classes, lack of electronic materials, and the monitoring system was very poor. From the teacher's perspective, the irregularity of students, the content delivery process in a short time, and the internet problem, along with the technical problems, are some of the challenges. Similarly, from the students' side, lack of internet, lack of devices, lack of clarity of the content delivery process, and irregularity of their own are the major challenges. I have found some of the major challenges in the virtual mode of instruction according to the data collection tools, i.e., a single device in a family but there are more users; there is an internet problem in the remote area of the Gorkha district; poor economic status of the parents; irregularity of students in the virtual classes; poor learning and evaluation system; sometimes the devices are misused rather than used.

The view of students at a community school from the FGD is like this:

We are living in a remote area of this district. We have an internet problem. We do not have an appropriate device for the virtual classes. Similarly, if we have a mobile, there are multiple users in the home. Our economic status is very poor and our parents do not afford to buy another device for the virtual classes. So, our irregularity in the virtual classes affects our learning and evaluation process of our own.

This is evidenced by students' responses in grade 8 who have faced problems in virtual classes. Even though some students attended virtual classes regularly, their achievement level was less good. So, the problems are not only from the students' side but also from the administrative and teacher's sides.

Similarly, the view of the students of a private school is extracted here:

We have a little bit managed the device for the virtual classes, but the internet problem is affecting the total learning system. Though the teachers make an effort to visit our parents and us, they are not fully satisfied with our learning process. They also have some technical problems, but their efforts are better for us and they support the virtual learning process.

This evidence is quite different from the community schools because the teachers and the administration of the private schools have tried to spend a lot of time holding their students through telecommunication and physical meetings. They have counseled their

parents and students for the virtual classes, and they can manage well instructional procedures along with results than the community schools. This shows the negligence of the community schools and the awareness of the private schools towards the learning process during the pandemic situation.

Challenges in the face-to-face mode of instruction

There are different challenges in the face-to-face or physical mode of instruction during the post-COVID-19 pandemic situation than in the virtual mode. These challenges are not only the new problems that are created due to the COVID-19 pandemic situation but also the pre-COVID situation. The common problems in the community schools of Gorkha municipality are the lack of instructional materials, the lack of a daily lunch programme in grades 7 and 8, the high desire for freedom of students, the irregularity of students, and the high dropout rate of students.

During the interview, one of the participants (a community school teacher) from Gorkha municipality said:

We have enough physical infrastructure along with our land but fewer instructional materials. We have trained teachers but some of the students dropped out after the pandemic situation. Similarly, the undesirable freedom of students after a pandemic is another challenge that affects their learning process. They have been facing mental problems due to the COVID-19 pandemic. Teachers were a little bit trained for virtual learning, but now this status has improved. The day lunch programme till grade 6 is more effective, but in grades 7 and 8 it has a negative impact. Parents who have lost their jobs in the pandemic situation have migrated, and the number of students in the classes is lower, except in some schools of the headquarters of this district.

This evidence depicts the reality of the schools' existence as well as their challenges in the school education system. Similarly, the effect of the daily lunch programme, students' performance after a pandemic situation, and the teachers' training are some of the major problems these days in the community school of Gorkha municipality.

The private schools of Gorkha municipality are facing some challenges different from the community schools, such as lack of physical infrastructure, teacher training, computer lab, library, salary for the teachers, and incentives.

The view of a respondent (an administrator) of a private school in Gorkha municipality, in this regard, was like this:

We are facing the problem of owning land and infrastructure. With the rent of the building, remuneration for the teachers, and lack of instructional materials, along with a computer lab, library, and playground, we have a problem providing quality education. The limited grant from the government is not sufficient for our school's operating system. So, we have collected the fee from the students a little bit high. This is the main source for managing all the aspects of quality education.

This is a different version of a private school than the community schools of Gorkha municipality as evidence. This is the argument of a private school administrator, which tries to clarify that the main source of school income is the fees of students, and all the aspects of schools are managed through that source. This is the strong view that claims the betterment of the student's achievement and performance in their school during the COVID-19 and post-pandemic situations. So, the counseling and the school conducting the process of the private schools in Gorkha municipality are remarkable compared to the community schools in some cases during the pandemic and post-pandemic situations.

Conclusion

The Corona Virus Disease of 2019 created unexpected barrier to the holistic aspects of development in the country. The educational institutions have been temporarily closed for a couple of years due to the effects of the pandemic. The instructional procedure of students is highly affected by this pandemic. However, the pandemic forced the people to look for the alternative ways of pedagogy and created opportunities to explore new modes of delivery in education system. The blended approach or the hybrid mode of instruction is one of the good examples of alternative methods of teaching which is the byproduct of this pandemic. The pandemic brought several way outs as well as the challenges. Despite some challenges, it has made people familiar with the digital applications that can be integrated in teaching.

A number of challenges in the virtual mode and physical mode of instruction have been explored in the study area from this research. To cope with the challenges of virtual and face-to-face modes of instruction, the blended approach of instruction has been seen as much better. The shifting paradigm in the pedagogical practice is the better way of instruction in the present situation. Training for the teachers of using Information and Communication Technology (ICT), the inspiration of students, facilitation of the administration in the teaching and learning process along with parental support towards their children can be some of the measures to sustain the blended approach in the instructional procedure shortly from these days. The study has implied that technology integrated teaching can be the better way to reach to the students even in the difficult situation caused by health insurgency.

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