

Difficulties faced by students and teachers in online teaching process during Covid-19 in Lalbandi municipality

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Abstract

This paper analyzes the difficulties faced by the students and teachers in online teaching learning process during the COVID-19 pandemic. Online learning is an alternative platform that replaced to the face-to-face mode of instruction. It refers to instruction that is delivered electronically through various multimedia, internet platforms and applications. This paper is based on mixed-method research design and primary and secondary data sources are used. Primary data were collected from field observation, personal interviews with students, teachers, parents, and focus group discussion. In this process, two secondary schools which were involved in online learning were purposively selected from Lalbandi Municipality of Sarlahi district of Madhesh Pardesh. Secondary data were collected from various sources- journals, Municipal offices, and e-resources. The findings show that online-learning has been felt more reliable mode of instruction during the pandemic situation for students, teachers and parents. However, it faces a lot of problems during operation and it became ineffective as compared to face-to-face mode of instruction. It is mainly due to the lack of electronic devices to support online class, lack of high-speed internet facility, irregular power supply, lack of teacher-students' interaction and ineffective assignment practices. As a result, a large number of students have not participated in online learning. Thus, this paper concludes that a strong institutional support policy among schools and local government requires to mainstreaming students participation in online-class.

Keywords: Contingency, inequality, inclusive, justice, synchronous

Introduction

With the swift spread of satellite TV, mobile telephone and the internet, developing countries such as China and India are being rapidly transformed from pre-industrial societies into industrial mass societies and partly even post-industrial network societies. It may call the 21st century the age of networks (Van Dijk 2006). The author argued that media development in the last two centuries has been more like two concentrations of innovations, of which the first can be placed roughly in the last decades of the 19th century and the early decades of the 20th century, and the second is to be observed in the last decade(s) of the 20th century and the first decades of the 21st century. The most recent communications revolution is primarily a structural revolution. It signals an end to the distinction between media that are fixed in space and time and media that bridge different dimensions (Van Dijk 2006). The new media, after all, can be used on online education. According to Beetham and Sharpe (2007), practitioners continue to seek guidance on pedagogically sound, learner-focused and accessible learning activities, and learning contexts are increasingly rich in electronic and mobile technologies. It offers tools that practitioners can apply to their own concerns and incorporates a variety of contexts including face-to-face, self-directed, blended and distance learning modes. Swan (2007) argues that the altered learning environments created by web-based technologies, not only eliminate barriers of time, space and arguably learning styles, providing increased access to higher education, they challenge our traditional notions of teaching and learning, and indeed higher education itself. Indeed, the development of online learning is considered as a part of distance education. Taylor (2001) characterized distance education into five generations depending upon the use of technology. The first generation uses correspondence model based on printed medium, the second generation uses audio/visual/print multimedia medium, the third generation uses tele-learning based on telecommunication technology, the fourth generation uses internet for the delivery of information while the fifth generation uses interactive internet with flexibility.

Online learning refers to instruction that is delivered electronically through various multimedia and internet platforms and applications. It is used interchangeably with other terms such as web-based learning, e-learning, computer-assisted instruction, and internet-based learning (Maddison & Kumaran 2017). Online learning and the professionals who provide online instruction are under a myriad of pressures to constantly adapt to emerging user needs and to look forward to new directions and approaches. Online instructors have moved from “sage on a stage,” attempting to duplicate regular, face-to-face instruction to “meddler in the middle,” facilitating interactive, technology-driven learning experiences (Judd & Marcum 2017). Indeed, distance education, in general, has been shown to benefit nontraditional students, especially those with daytime

responsibilities in the past. Nowadays, online/internet-based education is an evolving practice that is taking hold around the globe (Bakia 2010).

Online learning became a reliable mode of instruction during the Novel Corona Virus (COVID-19) pandemic in many developing countries like Nepal. School closures widely affected the students all over the world. Up to 99 percent students were affected in low and lower middle-income countries while 94 percent students were affected all over the world and 8,796,624 learners were affected by the school closure due to COVID-19 (UNO 2020, World Bank 2020, UNESCO 2021). Two-thirds of students worldwide still affected by full or partial school closures, the pandemic is taking an increasing toll on their mental health (UNESCO 2022a). As a result, UNESCO has designed digital learning resources to support governments, schools, teachers, parents reaching out to learners unable to attend to school. It provides an alternative mode of instruction and a repository of national learning platforms to support the continuity of curriculum-based online learning in school level (UNESCO 2022b).

In Nepal, Covid-19 has affected various sectors of the society including education sector. The adverse effect of the pandemic has been seen on the overall physical, mental and spiritual health of people (Paudel & Subedi 2020). The impact of the pandemic on the education sector may last for a long time, which has been closed for the past two years due to the fearsome spread of the virus. The Center for Education and Human Resource Development (2020) has estimated that 95, 9,127 preschool students, 39, 70,016 primary school students and 36, 31,853 secondary school students were affected during the COVID-19. School closure has become more difficulty for students, teachers and parents. In this context, online learning has considered as a mere solution for the continuity of school education. However, online learning faced a lot of challenges in many developing countries, like Nepal.

Van Dijk (2005) suggests that ability to use ICTs in basic tasks and as a learning tool. It requires resource (personal and positional), technological appropriation (attitude, material access, skills and usage) and participation in society(in the educational field). Giraldo and Báquiro (2020) focused on the professional ability to use complex computing tools and/or create, develop and renew such tools. It requires technical skills in digital literacy. It promotes a critical sense of digital culture and digital citizenship configuration. Understanding of digital culture increased innovative practices in the field of pedagogical and educational practices. The instrumental approaches emphasize that the provision and connectivity, in the training of teachers in technical aspects of the use of devices, and in the development of conventional educational practices that can eventually be "supported" by these technologies are the prerequisites for the

effectiveness of online class. It makes the implication of online learning ineffective as compared to face-to-face, a traditional mode of instruction. The existing literature shows that the students, teachers and parents have faced various difficulties in the online classes as compared to face-to-face mode of instruction during the COVID-19 pandemic (Bonk & Reynolds 1997, Cojocariu *et al.* 2014, Martin & Oyarzun 2018, Dhawan 2020). Thus, this paper seeks to answer the unrevealed questions what are the pedagogical problems faced by the teachers and students for using alternative mode of instruction during COVID-19 period in Lalbandi Municipality of Sarlahi district of *Madhesh Pradesh*.

Materials and methods

Study area and sampling

This study area lies in the Lalbandi municipality, Sarlahi district of *Madhesh Pradesh*. This municipality has been chosen as a study area because it is a hometown of the researcher. The area was more affected by COVID-19 and selected schools were adapted to online class as an alternative mode of instruction. There are 10 schools located in this municipality and only three secondary schools have operated online class during COVID-19 pandemic. In this study, only two schools were purposively selected with covering urban and rural areas. This study covered those students who studied at grade 10. There were 479 students in the study area, and only 53 students were selected purposively. In addition, head teachers, teachers and parents were also selected from each school purposively to collect data.

Sources of data

This paper is based on the mixed methods research design and primary and secondary data sources. It integrates both quantitative and qualitative data. Primary data were collected from four types of respondents: students, teachers, parents and government officials. Surveys, personal interviews, field observation, note-taking and focus group discussion were employed for primary data collection. Interviews were recorded and transcribed. Field notes were made to collect personal views, experiences and perceptions of students, teachers and parents. Focus group discussions were held with students, teachers and government officials. Secondary data were collected from the reviews of policies documents, empirical reports, theoretical literatures and e-resources.

Both descriptive and analytical methods were used for data analysis and interpretation. The quantitative data were analyzed using simple statistics and qualitative information was interpreted manually developing detailed transcription. The whole analysis process consisted of coding, categorizing and conceptualizing the main vision.

Results and discussion

Online learning: An alternative mode of instruction

Online education has considered as an alternative mode of instruction. It facilitates to increase access to information and communication technological knowledge in teaching learning, shrink teaching costs, takes less time and empowers learners at their own speed. Due to the threat of coronavirus disease (COVID-19), many schools in the country opted to bring classroom instruction online. The government of Nepal has switched to face-to-face mode of instruction into online learning and it is a part of distance learning. The use of ICTs as a tool that contributes to overcome poverty, reduce social, economic and cultural gaps, as well as open new fields for working in pedagogical purpose. It requires both technological provision (equipment and connectivity) and human resources. If teacher can be considered as a source of online learning, then they require resource access (computer, internet), and professional training for using ICT skills in classroom pedagogy.

This study reveals that the infrastructure of online classes in the schools of study area requires an access of teachers and students to digital resources and professional training to conduct online learning effectively. However, the online class has operated by the general orientation of Microsoft Teams or Zooms. Thus, this program could not develop its pedagogical credential as compared to face-to-face mode of instruction.

Access of student in technology

Van Dijk (2005) expressed that access as a process of appropriation of technology. It covers a broader meaning, not only physical access to a particular technology but also a continuing process of getting access to new versions of hardware and software, peripheral equipment, and subscriptions. He argues that obtaining physical access makes no sense when people are not able to use the technology. So, skills and competencies are also needed for access. When people have learned to operate and understand a technology, the purpose of access and the final goal of appropriating the technology will be looked for actual usage. Table 1 shows the students' access to laptop, computer, and mobile devices; free Wi-Fi, free data-packages, low cost internet facility for participation in online classes.

The total number of students is 60. They were inquired with multiple response. The result indicates that majority of students (43.4%) had access to the mobile application for learning and downloading materials. It is followed by the 18.8 percent students have access to free Wi-Fi, 5.7 percent for access to free data package and 11.3 percent for access to low cost internet facility. The findings show that only 66 percent students

have access to electronic devices (mobile, computer and so on) and internet services. However, more than 34 students do not have any access to participate in online learning class. Thus, digital devices regarding to resource access among the students is a major problem of online learning during the COVID-19.

Table 1: Student's categorization according to the facility digital devices

Access to internet	Count	Total %
Mobile application for downloading learning materials	23	43.4
Free Wi-Fi	10	18.8
Free data package	3	5.7
Low Cost internet facility	6	11.3
None of these facilities	18	33.8
Total	60	100%

Sources: Field Survey, 2022

Effectiveness of online learning

Frits Pannekoek, the President of Athabasca University acknowledged that online learning is the most accessible pathway to the new knowledge economy and related jobs for the majority of working people. To be effective for the next generation, online learning has to include mobile learning, e-gaming, online communities, and learning management systems that engage each user. To fulfil this objective, all faculty, and staff share their expertise, knowledge, and enthusiasm for the learning tools and techniques that promise to extend access, while retaining high-quality learning opportunities in changing situation. This statement is still valid to the success of online class during the COVID-19 in Nepal. Lack of expertise, knowledge, and enthusiasm for the learning tools and techniques creates ineffective environments for the online learning (Table 2).

Table 2: Categorization of students according to effectiveness of alternative education

Category	Respondents	Total %
Learning was less effective than face to face at school	24	45.3%
It is quite moderate	13	24.5%
The learning was more effective than face to face at school	4	7.5%
I did not learn anything	9	17.0%
It was worthless	3	5.7%
Total	53	100%

Sources: Field survey, 2022

Table 2 shows that the students' perception toward the effectiveness of online class. The figure revealed that 45.3 percent student perceived that online learning became less effective as compared to face-to-face mode of instruction. It is followed by the 24.5 percent stands for moderate, 7.5 percent for the effectiveness, 17 percent for they did not learn anything from online class and 5.7 percent for the worthless in online class. It can be concluded that online learning became less effective as compared to face-to-face mode of instruction. The following perspective support to this statement. One of the student told that:

"I think face to face learning in classroom is more effective as compared to online classes. In my opinion, if we have access to internet services we can better understand in online class, but the lack of access to internet service that made a miserable situation in online learning environment."

Parent perception is also important to evaluate the effectiveness of online class during pandemic situation. One of the parent told that:

In my observation 'face-to-face class is more effective than alternative mode of instruction. It is mainly because students seem to be distant at the time of instruction. They have muted their devices in a class for participating other works. Home environment, parental supports and parents' education level are also important for the effectiveness of online learning. Thus, I have allocated a serene place for my children for online class without any hassle.

Institutional support and online class management is a fundamental prerequisite for online class. In this context, the head teacher from Shree Secondary School told that:

In my opinion online class became ineffective during the pandemic situation, thus we have chosen face-to-face mode instruction with physical presence. It is mainly due to the majority of the student did not pay their attention towards the online class. I felt that online mode of instruction did not work effectively in the context of Nepal.

Education Administrator of Lalbandi Municipality also reported that:

We have planned to continue school education through online media, television and radio during the pandemic situation but it seems to be ineffective due to the socio-economic conditions of students. They were suffering from the purchasing digital media (Smart mobile phone and laptop), internet services and also the problem of power cut.

The synthesis information collected from students, teachers, parents and administrators revealed that online classes become ineffective during the COVID-19 as compared to face-to-face mode of instruction.

Logistics support

While taking the content in online class, an efficient handling of the logistics for managing classroom was also important. Without the strong framework and support of the content and concept, the students and teachers will suffer in online class. Preparing students for online class requires a well equipped setting to meet the expectations of the students, provide consistent and reliable communication, develop student collaboration in learning environment, and know where students need help. Thus, teacher should keep themselves engaged in teaching-learning and involvement of students in practice. It is important for teachers to find ways to make it interesting not just for their students, but for him/herself, too.

This paper also analyses access of service facilities to the students who participated in the online class such as electricity, internet service, mobile phones, computers and so on. One of the guardian told that:

School notified students to join in online classes, but my daughter could not be joined in her class due to the lack of smart phone. We have not provided a smart phone that needed to her. I think that the use of mobile phone at early age, children can be misused it, but the time is changed now, everything is available there if we will constructively use it.

The first guardian deliberately not provided mobile phone for one student due to the fear of the misuse of the phone. However, other parent told that poor economic condition as a factor to afford mobile phone for their children and reported that:

My daughter does not have any access to electronic devices like mobile and laptop to be involved in online classes. Thus, her study is based on the books, she did not participate in any interaction classes during pandemic situation. We felt that time was hard crunching time for ourselves due to the poor economic condition.

Education administrator told about the lack of logistics support to students from the parents. He admitted that:

We faced many challenges for providing alternative based education to the students. Power cut, No or slow internet, low attendance of the students in the class and then even some have similar problems of battery, power made

it hard to provide effective online classes. In the coming new fiscal year, we will be designing effective projects.

All of the respondent faculties of Shree Secondary School and Janjyoti Model Secondary School had similar opinion about the economic problem of the students and parents so they could afford the basic required devices. As most of the parents of the students depend upon agriculture and labour for the survival, they could not afford the increasing price of providing not only mobile devices or computer but internet services as well. Other social stigma among the parents was that providing devices like mobile or internet services would harm their children's career, as children would involve excessively on their devices rather than using for educational purposes. The government and non-government institution did not also assist them.

Wi-Fi/Cellular data connection and internet speed

Access of high-speed Wi-Fi and internet services are backbone for online education. However, the findings show that the poor and slow internet services make a miserable condition in online education. The well-connected network and continuity of internet services are a vital role to make online class effective. One of the students told that:

I have faced problem in online class due to the lack of regular supply of electricity power. If the power cut during the delivery of classes I have suffered from reconnection in the class, background noises of friends and neighbors, etc. also made difficult to understand anything in online class.

Similarly, another student told that:

We felt problem in opening video and searching learning material in internet due to low-speed of internet services, it makes us passive in online class.

One of the parents told that:

Slow internet and power cut was the major obstacle in online learning.

One of the teacher believed that well-connected internet services and regular power supply are essential for the effectiveness of online class. He shared his experience as follows:

I think, regular supply of electricity power is essential for online class, when power cut during the online class, the majority of the students could not rejoin in the class due to the causes of power supply. If electricity came

back, it took time to connect in the classroom. In addition, students also forced their parents to buy smart phone for them, they felt economic burden and some parents were not being able to buy at that time. They have also lack of access of Wi-Fi and internet services.

Based on students, teachers and parents perceptions the low-speed of internet services can be considered as an obstacle difficulty in online classes. In addition, students were also faced problems in the online classes due to the irregular supply of electric power and fluctuation in internet services.

Classroom practice and evaluation

Classroom management is important aspect in online learning because it directly effects students' ability to learn and ability to teach. It also impacts on the teachers' ability to create effective teaching learning environment in online class. Classroom management refers to the strategies teachers use to support and facilitate learning in the classroom. Effective classroom management is important for students' achievement because it creates an environment that minimizes disruptions, maximizes instruction time, and encourages students to engage in learning. Student achievement is highly dependent on the effectiveness of their teachers in the classroom. Wright *et al.* (1994) found that classroom practices motivated students to learn, as well as their participation in classroom activities have created effective learning environments. Regarding to this theme, students and teachers' perception are important in the effectiveness of online class. One of the teachers who involved in online class told that:

In my personal experience, students always seeking easy way secure good marks without hard labour. I have often used messenger, the students asked questions frequently whereas some students did not show up. I think, the active participation of students in online learning makes the classroom interactive and communicative.

Another teacher told that:

Generally, 10 percent students were actively participated in classroom interaction in to face-to-face mode of instruction. I have also observed as the same patterns in online classes too.

Students' evaluation is a major component of online learning. Different platforms provide access to student evaluation in Micro-Soft Teams, Zoom and Learning Management systems (LMS). One of the teachers told his experience in student's evaluation as follows:

I had taught around 10-14 students on a good day otherwise number of students were 5-7 which was drastically low. In English medium, number of students were 40-52, which was greater, compared to Nepali medium schools but still less than 50%. We distributed the assignment to the students in the form of hard copy. Those students who were present on the school took the assignment. We did not find that 100% assignment were taken.

Students are not attending online classes regularly compared to the regular physical classes. Some of the students are inquisitive about studies but many students lacked of the communication and feedback. Previously, students were evaluated from their class works and assignments. With the online classes, teachers had hard time evaluating students properly.

Coordination among the stakeholders

This theme outlines the role of local government in the facilitation of students' participation and coordination between stakeholders and monitoring the effectiveness of learning adopted during the COVID-19 period. Following reviews are the reflection of respondents' viewpoints on the effectiveness of the role played by local government. Head teacher of Shree Secondary School told:

We raised our voice in municipality, education office, local committee but nobody listened to us. They did not provide any facilities. However, just municipality helped in providing question but it was not flexible. Some student did not write and some did not get, so it was less effective. We did not know about other school, but for our students we try our best to involve them in learning and did not allow them to waste their time aimlessly.

Similarity, one of the teachers told:

Lalbandi municipality organized 3 days assignment development workshop for each subject to the teachers that assisted them to create assignment to the students. We distributed the assignment to the students in the form of hard copy. Those students who were present on the school took the assignment. We did not find that 100% assignment were taken.

Education Administrator told:

The effective way was to create worksheet for students and we created the questionnaire for students as assignment during the span of 1 month. We then circulated the questionnaires to the student through the respective

schools. One day out of a week would be chosen as day to check the answers written by students. We received good response from this method.

All respondent students and parents/guardians had mentioned that they received no support in any form from local government body. There seemed to have been any coordination between stakeholders, faculties and parents. Each party developed their own mechanism to cope up with the COVID-19 but Schools and Local government had no proper planning for alternative classes.

According to the (Taylor, 2001), distance education can be categorized into five generations depending upon use of technology. Online education is one of the component of distance education. Developed countries are far ahead in the context of online learning even if developing and developed countries used fifth generation. Developing countries could not properly utilize components of ICT learning to make it effective because of poor social, economic, cultural, motivational factors. In the context of study area, utilization of technology depicted that the fifth generation was not properly used which caused several challenges in online learning.

Van Dijk (2017) characterized three types of access: physical access, skills access and usage access. Physical access generally used for the access of hardware (mobile, computers), skills access is the digital literacy and usage access refers to the use of resources based on time and frequency, number and diversity of applications. In the case of study area, few subset of students had access to all of the usage but majority of students had access to either of the usage. Students with physical access to technology had access to internet service with lower bandwidth, which is limitation for the online learning. Beforehand, students had no or limited skills to engage in online learning. With time and training from faculties, they gradually improved.

Digital divide is term coined for those who have or have not access to the digital technology. Van Dijk further explained the factors of digital divide. Inequalities in society begets unequal distribution of resources while digital divide is the cause of unequal distribution of resources. Digital divide depends on characteristics of technology and produce inequality in participation. Unequal participation builds up inequality in society and unequal distributions of resources. Further, motivation, attitude, intention, and social support are also factors of digital divide. Social, economic, cultural capital, motivation, skills, purpose of use, inequality in (social, cultural, economic, personal, political) benefits causes digital divide (Ragneda & Laura 2017). In the study area, there is inequality in social, economic, cultural, gender, motivation, intention that lead to digital divide that is another challenge for the developing nation like ours.

Positive attitude towards ICT, learner-centered pedagogy, individual learning rather than group learning are the set of characteristics for ICT based pedagogy. Other factors that enhance the quality of ICT based learning can also be speed, capacity, interactivity, communicability, non-linearity and multi-modality and so on (Pritchard, 2007). In the study area, basic training on operations of online classes were only given rather than comprehensive training to make online learning effective, teachers were focused on content delivery, online classes were less interactive, non-linearity and did not support multi-modality, teacher were lacking proper evaluation of assignments, these were some of the factors for making online classes ineffective.

Conclusion

This paper attempts to explore difficulties faced by the students and teachers in online learning. It is mainly because large number of schools were shut down all across the world during the COVID-19. Globally, over 1.2 billion children were out of the classroom. In this context, online learning becoming a reliable mode of instruction to mainstreaming education in pandemic situation. It has changed dramatically in face-to-face mode of instruction and provides an alternative way from e-learning, whereby teaching is undertaken remotely and on digital platforms. However, it develops through different generations: postal services to digital platforms. The benefits of online learning are safety in terms of the recent pandemic situation. It is a flexible mode of instruction which saves both time and money. However, majority of students shared their uncomfortable perceptions towards the operation of online classroom.

Online Learning is an evolving craft that requires sound pedagogy. Arranging digital learning can be challenging today, starting with a lack of time. The effectiveness of online learning requires an alignment with pedagogical goals, identifying drivers and motivation, ensuring flexible scheduling, personalization and interaction between learners and teachers and develop relevant technological skills that can be integrated pedagogical content knowledge. Others focused on the access to resources and appropriation in technology that can be practiced for the transformation of the society/education. This paper concludes that teachers and students perceptions have not supported the effective use of online classes during the COVID-19. It is mainly due to the lack of access to digital resources, lack of high-speed internet services, irregular power supply and lack of schemes for teachers' professional development.

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