

Impact of COVID-19 on the Education Sector in Nepal: Challenges and Coping Strategies

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Abstract

The pandemic spread of Novel Coronavirus, also known as COVID-19, has significantly disrupted every aspects of human life, including education. The alarming spread of the virus caused a havoc in the educational system forcing educational institutions to shut down. According to a UNESCO report, 1.6 billion children across 191 countries have been severely impacted by the temporary closure of the educational institutions. In order to mitigate the impact, educational institutions have responded to the closure differently in different contexts with a range of options for students, teachers, managers and parents, depending on the resources, both materials and human, available to them. Most of the options have to incorporate innovative technologies (e.g., digital and mobile technologies combined with traditional technologies such as radio and TV) in order to provide at least some form of educational continuity. As distance and online education is dependent on technological facilities, including internet and Wi-Fi, the discrepancies that exist in their availability are widening the gaps in access and quality of education. This article investigates the impact of COVID-19 on the Nepalese education system, with a focus on the school education. Based on the published documents, reports and news commentaries, the article provides a critical analysis and reflection on the opportunities and challenges the pandemic has presented for the technologization of the education systems. The findings indicate that the pandemic has had serious impacts on students' learning and well-being, and that it potentially widens the gaps between advantaged and disadvantaged children in their equitable access to quality education. Furthermore, the findings suggest that Nepal has formulated a number of ICT and education related policies since 2000; however, the challenges it is experiencing in the advent of Covid-19 are mainly due to its faulty implementation strategies and inability to implement those policies. A discussion of the challenges and their potential managing strategies is provided in the final section of the article.

Introduction

Nepal, a small, landlocked country situated at the foothills of the Himalayas, is said to have its first encounters of the pandemic in phase two, in which the transmission of the virus was predominantly linked to arrivals from foreign countries (Mohyidin 2020). The Government of Nepal made a slow start in its response to the spread of the virus despite its rapid spread in many countries including its neighboring countries. The first case of COVID-19 was formally identified on January 25, 2020 when a 32-year Nepali student returning from the city of Wuhan, China was tested positive. After the appeal of Tribhuvan International Airport, the Nepalese Civil Aviation Authority formally set up a desk with thermal scanners at the airport (Gahatraj 2020). This measure was insignificant because Nepal, being a landlocked country, experiences

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a massive flow of people from the neighboring countries on the daily basis. After hi-and-cry of the press about the threat of COVID-19 and widespread criticism for its inaction, the government, after several weeks, announced formal measures and restrictions on the public mobility.

As the consequence of the lockdowns, schools and universities in Nepal have been temporarily closed for nearly two months now. As of the second week of May 2020, UNESCO (2020) estimates that nearly nine million (8,796,624) students in Nepal are affected due to school/university closures in response to the pandemic. Out of this number, 958,127 (11%) are in pre-primary, 2,466,570 (28%) are in primary, 3,463,763 (39%) are in secondary and 404,718 (5%) are in tertiary education. Because of the compulsory closure of schools and universities for a considerable period of time, the education system has changed dramatically, with the distinctive rise of e-learning whereby teaching and learning is undertaken remotely and on digital platforms. However, there are many challenges around equitable access to e-learning.

As the situation of the spread and impacts of the control measures and restrictions evolve, there is a lack of adequate research in order to determine the actual impact of closures on education. This article is an attempt to investigate the impacts of formal closures of schools and universities on education. Based on the analysis of secondary sources/data and published news commentaries, the article reviews the global situation and reflects on the nature of effect of the COVID-19 on the Nepalese school education. It highlights some of the challenges for Nepal and offers some strategies to combat the impacts of the pandemic.

International efforts to manage the impact of the COVID-19 on school education

Various countries have adopted a range of measures to respond to the pandemic depending on their available resources. For instance, countries which are technologically advanced, such as Italy, France, Germany, Australia, the UK, and the US, have adopted distance learning as a means to compensating for the loss. They quickly enhanced their e-learning platforms (Moodle, LMS, cloud systems, etc.) to create common distance learning centre portals and provided students access to e-content and repository through mobile devices. In these countries, all stakeholders, institutions, teachers, publishers, and parents have joined hands together to create digital resources (e.g., textbooks and learning materials) so that they could be delivered through virtual classrooms (Azzi-Huck & Shmis 2020). Furthermore, the two most populous countries on the planet, China and India, have both established national e-learning portals with access to the national repository of learning resources for parents, teachers, students, and education administrators. India has provided access to thousands of complete courses in multiple languages. China, on the other hand, has mobilized all provincial and national online platforms and telecom service providers, upgraded the bandwidth of major digital platforms, and mobilized the society-wide resources, both human and material, to “ensure learning is undisrupted when classes are disrupted”. In addition, China has adapted flexible online teaching methodologies to facilitate learning. Furthermore, it has strengthened online security through the collaboration of all service providers and created a provision of psych-social support for ensuring 100 % online learning (Azzi-Huck & Shmis 2020).

On the other hand, countries without adequate infrastructure are turning to traditional technologies, such as radio and TV, as a means to compensate for the loss. For instance, in South American countries such as Argentina, Chile, and Brazil, where access to internet and internet connectivity is a major issue, the respective ministries have used a combination of new (mobile, digital) and traditional technologies to deliver lessons and resources from a single, coordinated national education portal for students, teachers, managers, and parents. Radio,

television, YouTube channels, recorded lessons and digital educational resources/materials on-demand are combined together to provide lessons to students who do not have reliable access to the internet (IAU 2020). Adopting a similar approach, Indonesia and Malaysia have mobilized all major technology providers, internet providers and TV communication channels to join hands of their ministries to provide live education programs for students as well as teachers. In Indonesia, Education TV, 'Learning House' and Online learning System Program provide access to learning resources. Together, they provide "a learning management system as well as digital lessons, electronic textbooks and practice assessment tools aligned to the curriculum" Similarly, Malaysia has launched a new TV channel to deliver education through TV programs to all students, especially those without Internet access. These programs are also live-streamed on the Ministry's online learning platform which offers access to on-demand content as well as digital textbooks (IAU 2020).

Impacts of COVID-19 on education in Nepal

In order to understand the impacts of school closures and resultant technolised education, it is important to understand the fundamental differences in what may be termed as the 'normal' education and the new socially/physically distanced education. While the former is community divorced (i.e. taking children away from home and community), the latter is community embedded, i.e., it takes places within the homes and residences of the students (Mahboob 2020). Consequently, as Mahboob further argues, given the inevitable variations in the socio-economic, linguistic and educational backgrounds of parents, students will have varied access to information and support. Therefore, if home and community are to be mobilised, the backgrounds and limitations of the home and community need to be an important consideration. In other words, education during COVID-19 and beyond must be reimaged as a community-embedded practice. "While teachers in community-embedded education provide resources and help set goals and pathways that students can take," it must be noted that the actual realisation of the educational practice (and, hence, its outcomes) will eventually depend on the facilities, resources, skills and expertise of those involved in the process (see also Mahboob 2020).

It is too early to fully understand how the COVID-19 school and university closure has affected the education system in Nepal, a low-income country in South Asia, but there are several indications that it could have a lasting impact on students. What follows is the enumeration of the impacts of the pandemic on the Nepalese education.

Impact on learning and skills development

The COVID-19 school and university closures have a negative impact on students' knowledge and skills development in Nepal. As Burgess and Sievertsen (2020) argue,

Going to school is the best public policy tool available to raise skills. While school time can be fun and can raise social skills and social awareness, from an economic point of view the primary point of being in school is that it increases a child's ability. Even a relatively short time in school does this; even a relatively short period of missed school will have consequences for skill growth.

Research on school learning indicates that even a short period of missed school will have negative consequences for skill development. For instance, Carlsson, Dahl, Öckert and Roothet (2015) explored a situation in which young men in Sweden had differing number of days to prepare for important tests. The authors highlight that "an extra ten days of school instruction raises scores on crystallized intelligence tests (synonyms and technical comprehension tests) by approximately 1% of a standard deviation, whereas extra non-school days have almost no

effect.” (p. 533). This means, even just ten days of extra schooling significantly raises scores on the tests of the use of knowledge (‘crystallized intelligence’). Similarly, Lavy (2015) estimated the effects of instructional time on students’ achievement. The data samples collected from over 50 different countries with substantial differences in hours of teaching indicates that face to face instructional time has a positive and significant impact on students’ test scores. It is, thus, not too hard to decipher the impact of prolonged closure of schools on students’ learning in Nepal.

Digital learning creating inequality in access to education

Nepal, like any other low-income countries, has big gaps among its citizenry in terms of their socio-economic and education/literacy background. The existing system of education and the uneven distribution of its resources have often been blamed for the widening gaps between the haves and have-nots; in the advent of COVID-19, the digital divide and the uneven access to e-learning and e-resources will increase the gaps even further by widening the inequalities between the advantaged and disadvantaged children.

The present scenarios indicate that students in Nepal are affected differently by the pandemic. For instance, a few schools and colleges in urban areas have started to run online classes to mitigate the impact on learning. However, running online classes does not seem to be feasible for most rural schools in Nepal. It is estimated that only 56% people in Nepal have access to internet. According to Pandit (2020), only 13 % schools might be able to run online classes (though 35% schools have access to internet). In other words, the current ICT infrastructure and the distribution of access in the urban and rural areas have created two-tier of inequalities in the Nepalese citizenry, i.e., between students who live in urban area and those from rural area, and between the rich and poor who can barely afford to access the internet. Considering such divide, the Human Right Commission in Nepal has requested the Ministry of Education Nepal and private schools not to pressurize children in the name of online education (Kantipur News 2020).

To reiterate, giving equitable access to e-learning for all students in Nepal is a huge challenge. The sudden move to e-learning will further widen the inequality gaps, leaving a huge number of students behind. Gyamerah (2020) rightly points out that although technology-based education offers many benefits, it can widen the existing inequalities if all the measures are not taken into consideration. Similarly, UNESCO (2020) has expressed the concern that the attainment of Sustainable Development Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, and Sustainable Development Goal 10: Reduced Inequalities, which the signatory countries are obliged to achieve by 2030 will now be difficult to do so.

Impact on assessment

All sorts of external assessments (including board exams such as the Secondary Education Examination) have been postponed and almost all the internal assessments have been cancelled. The cancellation of assessments has negative impact on students’ learning. Internal assessments are very important as they indicate students’ learning needs and then support learning (Black & Wiliam 2018). For instance, Andersen and Nielsen’s (2019) study, which explored the impacts of a major IT crash in the testing system in Denmark, indicated that participating in the test had positive impacts on students’ learning. Indeed, the score in a reading test was increased by 9% of a standard deviation; similar effects were observed in mathematics. Furthermore, Dawadi (2018) highlights that assessment motivates students for learning. Regarding the external assessments, their postponement has a direct impact on

students as the educational and occupational future of students depends on their outcomes. This uncertainty creates anxiety in students as they are stuck in the same grade/class they studied for a whole year. Similarly, many students plan to go abroad for studies, which now hangs in the balance as by the time they take final/board exams and get their certificates, it might be too late for them to apply for the coming academic year in other countries.

Pipeline effects

While on the one hand the pandemic has had crippling effects on the education sector, it has, on the other hand, created a great deal of uncertainties on Nepali students enrolled or aspiring to enroll in overseas universities as they have now been barred from leaving for these countries. In other words, the pandemic has severely affected the prospects of students for their abroad studies which may have long-term effects in Nepalese education and economy. The pandemic has, thus, created a potential dent in Nepal's education system, the ripple effect of which will be realized when lockdown effects are lifted and schools/universities begin to open. There will be so much pressure on teachers and students to recover from all the time lost, i.e., teachers will have limited time to cover several topics in their curriculum and students might feel pressured to learn so much within a short time. In other words, as Buckler, Chamberlain, Stutchbury, and Hedge (2020) rightly point out, schools and teachers “will be under immense pressure to ‘catch up’ – the focus will be on what teachers need to do”. Consequently, there might be a danger that a priority is placed only on covering the courses rather than on developing skills in students and preparing them for a better future.

Since secondary schools which feed students to higher education have been closed, there is a danger that many students get entry into higher education without developing the skills they need to cope with higher education. The situation is likely to aggravate the already deteriorating standard of education (Dawadi 2019a).

High drop-out rate

The COVID-19 school closure is likely to increase drop-out rates. It is estimated that the COVID-19 impact on the Nepalese education might resemble the impact of Ebola epidemic (on education) in Africa which significantly increased drop-out rates across Guinea, Liberia and Sierra Leone, countries hardest hit by the outbreak (Giannini & Albrechtsen, 2020). As Buckler et al. (2020) argue, “the longer schools are closed, the more drop-outs occur. More generally, the longer people pause a learning programme, the less likely they are to see themselves as learners. It becomes much harder (logistically and psychologically) to re-enrol and re-engage”.

In the context of Nepal, drop-out rate may rise mainly for two different reasons. First, many parents have lost their jobs due to the pandemic and their economic crisis has worsened than ever before. Therefore, it is likely that some parents may not be able to afford their children to attend school (or university) and children may need to work to provide economic support to their family. It is estimated the situation will be worse in rural areas. As Tiruneh (2020) rightly points out, “Parents from rural localities may be reluctant to send their children back to school because they may prefer their children to continue to support them in farming and livestock herding.”. Second, Nepal's economy is largely dependent on foreign employment. As Prasain (2019) points out “Nepal is 19th largest receiver of remittances [...] Nepali migrant workers sent home \$8.1 billion in 2018”. Indeed, a large number of families in Nepal depend on the remittances but this pandemic has badly affected abroad jobs forcing people to lose their jobs and return to Nepal. This situation might also lead to higher drop-out rate in Nepal.

Challenges and possible strategies to respond to COVID-19 impact on the school education

While many other countries around the world are racing to fill the void with e-learning solutions, Nepal seems to lack proper strategies to face the challenges created by the pandemic. Almost all schools and universities are closed for more than two months and it is still not clear how long this situation will continue. Very recently, the government has planned for virtual classes through radios and television and encouraged teachers to introduce online classes as well (Pandit 2020). However, making an immediate shift to online classes is extremely difficult in Nepal for the following three reasons.

Firstly, almost all schools and universities (excluding Nepal Open University) have no (or little) experience of conducting online classes. Indeed, most teachers do not seem to have adequate skills to run online classes as they have neither been trained to do the job nor have been involved in online teaching before. According to Pandit (2020), only 1% of public-school teachers can run online classes. Second, it is estimated that only 56% of people have access to internet (many with just limited access). Sharma (2020) argues that only 8% families and 12 % schools have access both to internet and digital devices. Indeed, getting access to internet or technology is very costly for many parents and/or schools. For most schools, in addition to infrastructure, unfamiliarity on the part of teachers and school managers are barriers to providing distance learning. Third, many students and parents (including teachers) are not computer literate. Indeed, the national literacy rate is just 65.94% (Central Bureau of Statistics 2012) and computer illiteracy rate could be higher.

Despite the fact that Nepal, like other developing countries, is experiencing technological transformation, very little progress has been made in the implementation of ICT related policies in general, and ICT education in particular. For instance, there was a plan to bring the country into a single, free Wi-Fi system (Purdie, 2014; The Economic Times, 2014), and the National Information and Communication Technology Policy 2015 aimed "to achieve the entire population of Nepal to have access to the internet by 2020" (cited in Shrestha, 2017, p. 21). However, just around 72% people have access to internet till the date (Sharma, 2020)-most of them are from urban areas. Similarly, the School Sector Reform Plan (SSRP) 2009-2015 aimed to expand ICT infrastructures in schools to support ICT associated teaching/learning strategies (Ministry of Education, 2009); the Three-Year Plan 2011-2013 focused on the use of ICT in school education (NPC, 2011); the ICT in Education Master Plan 2013-2017 (i.e., a policy related to ICT in school education) aimed to expand equitable access to quality education, reduce the digital divide between haves and have-nots and improve the service delivery system in education (Ministry of Education, 2013); and the recent School Sector Development Plan 2016-23 considers ICT as a significant tool to maximise access to teaching-learning materials, improve classroom delivery, and enhance the efficiency and effectiveness of educational management and governance. However, the policies do not seem to have been implemented properly. Consequently, the vast majority of schools have neither ICT infrastructures (and human resources), nor an access to internet now.

As discussed in the sections above, virtual education, in particular the school education during COVID-19 school closures, is inadequate, fragmented and uncoordinated. It was pointed out that the repercussions of the school closures on the access to quality learning and learning resources have been significantly widening the gap further between the students who are disadvantaged and reside in the outlying parts of the country and those who reside in the urban areas. In the section that follows, a discussion of the challenges and some strategies that can be introduced to combat the situation is provided.

Putting strategies in place to ensure children return to school when they reopen

“Children from low-income families are at a double disadvantage during the COVID-19 school closures: interruption to class time and economic uncertainty” (Tiruneh 2020). There are some indications that the impact of COVID-19 in Nepal, where many people live below the poverty line, is going to be devastating. It is highly likely that some children from low-income parents never return to school when schools reopen as they must support their family. Therefore, the challenge for the Nepalese school, as Tiruneh (2020) points out, is to trace all the “children who do not return to school and devise some strategies to encourage parents to send their children back to school.” Furthermore, schools may need to provide flexible learning approaches so that students are not deterred from returning to school when they re-open. Additionally, schools may consider providing economic support (e.g., hardship fund or scholarships) to students who are worst hit by the pandemic or whose economic condition has been a barrier to attend schools (Giannini 2020).

Introducing evidence-based interventions to recover lost learning

Disruption in educational activities following the school closure will have lasting effect on students. Recovering the lost learning might take a very long time as it requires a carefully worked out recovery plans, which are not in place at the moment. With a view to assisting students in such a stressful situation, the authority must introduce evidence-based interventions or reform-oriented actions that aim to facilitate the recovery of the lost learning when schools reopen. For this, schools and universities may survey the need of students and design some catch-up lessons (Tiruneh 2020). In other words, the concerned authority may need to devise measures to cater for a poorer quality of student intake, perhaps by running extra classes, additional materials or remedial courses in the first year.

Understanding students’ family background and providing appropriate counselling and support for pupils and parents

The COVID-19 pandemic has a serious impact on health and wellbeing of young people. It is likely that mental health problems are increasing, and many more children have become a victim of domestic violence. There might also be a lack of physical activities for children, particularly in urban areas, due to lockdown which might lead to childhood obesity. Furthermore, some children are getting addicted to social media and digital devices. All of these might have indirect effect on their learning. In addition, it is likely that many students come back to school, when schools reopen, with more problems associated with their families. Some students, for instance, may come back with a high level of anxiety associated with the health or family issues created by the pandemic and/or the loss of learning during this pandemic. Managing health and well-being may become a major challenge for schools. A proper plan and remedial actions in hand to face the challenges will be needed.

In order to address these problems, schools may need to counsel students and parents. During this pandemic as well, it is highly important that schools make a frequent contact with students and parents. There might be several ways to do so, such as telephone call, contact through social media and home visits maintaining a physical distance. It is also worth pointing out that the focus needs to be more on students’ (mental and physical) well-being than on learning during this pandemic.

Using local volunteers and locally trained facilitators to support learning

It is important that local governments and schools work closely with the local communities. As Sabates (2020) suggests, support for learning during (and even after) this pandemic could be found from within communities. Schools can request local people (no matter whether they are trained), who know the language and culture of students, to volunteer for student learning. Schools can provide them guidelines on how to support children. Furthermore, locally-trained facilitators might have potential to support the education of out-of-school children and young people. Sabates (ibid) claims that their research in Ethiopia, Ghana and Pakistan indicates that local facilitators can have a significant impact on education:

Local facilitators are able to enhance foundational literacy and numeracy skills for children who have never been to school or those who have dropped out without completing basic education. The power of local facilitators lies in their ability to communicate and use mother tongue with learners and establish a solid foundation for literacy.

Engaging with parents

Families are central to education as they can play a key role in children's learning (Burgess & Sievertsen 2020). It is widely argued that all parents, irrespective of their ethnic background, economic status and educational level, try their best to support their children (Basol & Zabun 2014; Dawadi 2019b; He et al. 2014) and their involvement in their children's education is beneficial (see Cojocariu & Mareş, 2014; Necşoi, Porumbu, & Beldianu 2013). Indeed, previous research on school improvement and/or school effectiveness consistently shows that parental engagement in educational activities has been one of the major factors in securing higher student achievement; "the more parents are engaged in the education of their children, the more likely their children are to succeed in the education system" (Goodall, & Vorhaus, 2011 p.16). A positive correlation has been found between parental volunteering at school and their children's school achievement (Georgiou, 1999). Thus, schools must understand the potential of children learning with their families (Sabates, 2020). "Despite the disparities between families in the extent to which they can help their children learn" (Burgess & Sievertsen, 2020), engaging parents in children's learning is always beneficial. This means, one of the possible strategies to compensate the loss in learning caused by this pandemic could be maintaining a high level of cooperation and collaboration with parents. . For this, schools may need to use different parental engagement strategies. For instance, they can organise some workshops and focus group discussions to inform parents more about their curriculum, classroom teaching practices, and homework or school assignments to students, and encourage them to volunteer in some school activities; but teachers should be trained on how to work with parents whose backgrounds are very different to their own (Dawadi, 2019b).

Supporting through both online and off-line methods

There are potentially four types of students spanning from pre-primary to tertiary education in Nepal in terms of their access to digital devices and internet. The first group (i.e. students and parents from very poor background or from remote areas) do not have access to any form of digital means and internet. The second group (most probably the largest group) where parents have access to mobile devices (but no access to internet). Third group where parents have a good access to mobile phones but limited access to internet and other digital devices. Parents and older siblings might not have sufficient digital literacy while the final group (maybe just around 5%), the sophisticated users of the internet where family members have access to

several digital devices (including smart phones, ipad, ipod and laptop) and internet, and have sufficient digital literacy to use digital resources. However, the policies and practices introduced thus far are just city oriented. As Phuyal (2020) rightly points out,

Our attitude exhibits urban mindset at the policy and decision-making levels. One of the fundamental challenges is that our decision makers tend to assume that everybody resides within the access of internet technology.

Thus, various policies or action plans have to be introduced to address individual students' need. For instance, for most children living in remote areas with no or limited access to digital devices and internet (i.e. mostly the first group), it is indispensable to put together resources that are accessible to parents, potentially via post-offices.

The second group could be supported via radios, television and text messages. The priority to non- or low-tech approaches that are accessible, user friendly and cost effective is critical to sustain the delivery of education. In most poor, rural, isolated communities, the technologies already at hand are mostly radios, and mobile phones (though few still may not use mobile phones). Before considering the latest and new gadgets, utilizing technologies or resources which already exist (and are being used, and sustained) in such communities is central.

The Nepalese government has just started to run a few classes on radio and television, but all students cannot get access to such lessons as 20% people in Nepal have no access to radio and television (Poudel 2020). Poudel further points out that the ministry of education is looking for a new strategy to address the need of those 20% students, which is much needed. It should also be noted that even when rural children get access to radio and television lessons, it is highly unlikely that those children get enough help from their parents as many parents are illiterate. In this context, local volunteers can be requested to visit children in person (maintaining a social distance) and support them. For this, local governments and schools should work together. Another option could be that schools run face to face classes by implementing several measures such as maintaining social distance, students attending classes on a rota basis, introducing a behaviour management policy to comply with social distancing measures, restricting students to share items and making face masks a compulsion.

The third group could be supported via television, Radios, text messages and other social media (such as Viber, Facebook, WhatsApp, Imo, and WeChat) whereas online classes and resources can be offered to the final group (the most advantaged group). However, the schools which run online classes need to think of students' adjustment. As Vahid (2020) rightly points out, students may have several issues. For instance, some may have family duties at home, such as caring for their parents and their siblings; some may not have a suitable study space (e.g., they may have limited computer or internet access or lots of interruptions); and some others may have family tensions.

It is also worth mentioning that many families from the third and fourth groups primarily use the internet for personal communication and for social media. Most of them need awareness about the existence of the digital content, and training to use digital resources for their children's education. To motivate those parents, setting up a Viber group, Facebook group or WhatsApp group (or any other groups) could be a good option as they can communicate regularly through such groups. Learning materials can also be sent directly to parents through the groups and the parents can help their children to access the learning materials from their phones.

Furthermore, special attention should be given to the children with special needs as they may not be equally benefitted from any of the strategies mentioned above. Pudasaini (2020) presents “four categories of special needs learners revolved around parental literacy levels, atypical living situations, physical/mental abilities and learning needs.” Similarly, the multilingual context of Nepal needs to be considered. For instance, virtual classes need to be conducted both in National and local languages. This means, a comprehensive framework to address each type of students is needed.

Partnering with international organisations

Another possible option to recover the loss of COVID-19 school closures could be that local schools/governments outsource for some opportunities. For instance, the Global Partnership for Education (GPE) has recently announced to provide “US\$250 million to help developing countries mitigate both the immediate and long-term disruptions to education being caused by the COVID-19 pandemic.” The GPE aims to support for the children’s education who are affected by school closures. Similarly, UNESCO has established a task force to support governments from low- and middle-income countries to combat the crisis. Thus, schools or the local governments may request GPE, UNESCO and other organisations in Nepal such as Global Action Nepal, and Room to Read (to name a few) for their support to mitigate the crisis created by the pandemic.

Training teachers to run online classes and consider students’ access to technology

The present scenario in Nepal indicates that online classes in a few institutions are running without a proper plan and/or vision. Teachers are simply forced to do the job. This situation raises several questions, such as have we considered whether teachers are able to run online classes? Don’t they need training on online teaching? Do all students and teachers have access to internet and digital devices? In this context, Phuyal (2020) argues,

One of the fundamental challenges, is that our decision makers tend to assume that everybody resides within the access of internet technology. For example, Nepal Telecom 4G service does not work in Sudal of Bhaktapur [neighbouring district of Kathmandu- the capital city of Nepal]. The key question is: Can the telecommunication authority make the internet facility available to every student in the nation?’ In case the government answers affirmatively, a second question arises: ‘Can the students afford the tricky data plan of huge profit generating telecommunication companies?’ Alternatively, ‘Is the concerned agency going to pay the companies for the data use by students through specific web tools?’ [...] The internet service providers are almost absent in rural areas, while the major telecommunication companies like Nepal Telecom, Ncell, and others have high data charges.

Phuyal (2020) further argues that most people in Nepal cannot spend on data to broaden their mind; they must give first priority to their food to sustain their lives in such a crisis. Because of this pandemic, many people are dying of hunger and some have even suicided because of the food shortage. In such context, internet cannot be expected to be affordable to each student in Nepal. Therefore, the ground realities must be taken into considerations before decisions are made.

Furthermore, most teachers in Nepal are not well trained for online classes. Online teaching requires trained and skilful teachers. Mohamedbhai (2020) rightly points out:

It is a fallacy to believe that online learning can be effective by merely posting a lecturer's notes online or having a video recording of the lecture. Yet, this is what is generally happening at present. [...] Quality online learning requires that the teaching material is prepared by a professional instructional designer, that the lecturer is pedagogically trained for delivering the programme and the students are equally exposed to the pedagogy of online learning. The unprepared online delivery will have an impact on the quality of the programmes.

Thus, it is vital that teachers in Nepal are provided with training opportunities for online teaching as almost all of them have not done the job before. A few organisations such as Tribhuvan University (TU), Kathmandu University and Kings College, Nepal have started to conduct training to teachers. For instance, TU recently conducted a one-week long virtual training on online teaching to its staffs (Rai, 2020). However, the training was limited to 500 teachers of the university which has around 8000 teachers spread in its 60 constituent campuses. Furthermore, we need to ensure that each student gets access to technology and internet.

Using new approaches to assessment

As mentioned in the above sections, external assessments (including board exams such as the SEE) in Nepal have been postponed and it is not clear when and how we can conduct the exams as the pandemic is likely to continue for at least several months. One potential alternative for this could be the use of calculated grades provided by classroom teachers as in the UK, which have cancelled all exams for the main public qualifications (i.e., state level board exams, GCSEs and A levels) for the entire cohort (Meredith, 2020). However, Murphy and Wyness's (2020), having studied the UK's university application system, in which students apply based on predicted examination grades rather than actual results, argue that these are often inaccurate; "only 16 percent of applicants' predicted grades are accurate, with 75 percent of applicants having over-predicted grades". Therefore, careful measures need to be introduced to assess students' skills to ensure the reliability and validity of our assessments.

Furthermore, it is also worth considering Vahid's (2020) argument that we might "replace large high-stakes exams by many smaller low-stakes activities like homework, quizzes, or small custom projects." These strategies might be useful for future classes if the pandemic continues.

Moving to digital infrastructure

The COVID-19 has made us think an alternative way to teach our students. Although, few schools and universities have started to run online classes during this pandemic, most students in Nepal are out of schools/universities now. Therefore, the government should support schools and universities to strengthen their capacity to run online classes. Students also need support to get access to internet and technology as most students cannot afford them. During this pandemic, our focus should be more on virtual learning including television, radio and online education.

It is assumed that pandemic of this scale happens in waves and is cyclical. Furthermore, WHO has recently pointed out that the Covid-19 may never be eradicated; people will have to live with it. As a response to such an event, countries now plan to introduce an element of distance learning even in normal education. This will help facilitate "coping" once the crisis hits and minimize negative impacts. The approaches may include adjustments to the academic calendar, prioritizing students in grades preparing for high-stakes examinations, and continuing with

distance learning in parallel to schools. It is critical to jointly work building on the experience of previous outbreaks (SARS, Ebola, etc.) in support of Governments in understanding the options available and e-Pedagogy need to be considered as an alternative and innovative learning in education. International agencies such as The World Bank and UNESCO are working with countries across the globe in each of the three stages of preparing, coping, and recovery of the COVID-19 now. Educational administrators and policymakers can use this crisis as an opportunity to introduce new learning modes that can reach everyone, to prepare for emergencies, and to make the system more resilient.

Studies reviewed for this article suggest that virtual/online learning will probably never be an alternative to face-to-face learning particularly in the school contexts, as there are social and affective elements (essential ingredients of overall development) of learning absent in such a system, and therefore, it will perhaps never be a parallel education system at the school level. However, the education in the 21st century will increasingly embrace online/virtual classrooms. The recent pandemic created an opportunity for the Nepalese academia and decision makers to develop human resources and ICT infrastructures in schools. It is clear that the pedagogical approaches need to be changed and IT education (curriculum) has to be introduced at all levels of school education. As it is not certain how long this pandemic will continue (and whether we will have to face another pandemic in a near future), a gradual incorporation of online/virtual education is the demand of the time.

Conclusion

The article has provided a situational analysis of the state of education during the COVID-19 closures of schools and universities in Nepal. It has analysed the impacts the pandemic has had on school education, pointed out some of the challenges arising from the school closures, and suggested some responses and strategies for the management of the impacts.

It is evident that the COVID-19 pandemic has created some sort of educational anarchy with the government having no firm grip of the educational system. If proper actions are not taken on time, the whole education system will be stagnant or even collapse. A taskforce on education in each province needs to be set up under the leadership of the relevant ministry to explore possibilities, suggest immediate and short-term measures and enable teachers to compensate for the loss. Since the majority of students have almost no access to technology, the new measures must capitalize on low-tech approaches, and also provide some e-learning platforms to those students who have access to technology. This means, that the new strategies to mitigate the impact of the COVID-19 should range from hi-tech alternatives (such as real-time video classes conducted remotely) to lower-tech or no-tech options such as information through post offices and educational programming on radio. It is pleasing to see that the Government of Nepal has recently launched the unitary e-education portal under its Ministry of Education. The need is now to equip this national platform with a depository of course-wise lessons, e-books, and other teaching/learning materials. There exist different online teaching/learning systems provided by different institutions, both public and private separately. Such systems are, however, fragmented with different goals and formats. Bringing them to a single platform with a unitary depository will require time, resources and coordination. It will also require enhancement of education service platforms and mobilisation of all service providers to combine the traditional technologies (radio, TV, landline phones) with mobile technologies to reach their populations residing in the outlying parts of the country. This will involve upgrading the service platform to enable it to meet the required volume of demands. Similarly, the local,

state and national level service providers need to be mobilized to provide access to the service platform to the most disadvantaged sections of the population.

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