The Impact of COVID-19 Pandemic on Teaching and Learning: A Case of the Schools Under Thrimshing Cluster, Trashigang

Tsheten Tshering [a*]

[a] Thrimshing Central School,Trashigang, Bhutan.

Author's contribution

The sole author designed, analyzed, interpreted and prepared the manuscript.

Short Research Article

ABSTRACT

The purpose of this article was to study the impact of COVID-19 pandemic on teaching and learning of the students and teachers of schools under Thrimshing cluster, Trashigang Dzongkhag. The survey questionnaires was distributed to the teachers and students by surveyor. The data from the survey were analyzed by content analysis, percentage and descriptive statistics and qualitative data was analysed based on the themes. The findings indicated a mixed reactions. Majority of the teachers were positive with this mode of teaching while the students were at the receiving end. Most of the students suffered from numerous challenges of not having smart phones, internet connectivity and technical competencies to attend the online teaching and learning. Further, it has impacted their timely submission of assignments.

1. INTRODUCTION

The first human case of COVID-19, the disease caused by novel coronavirus was first reported in Wuhan City, China on 30th December 2019. Gradually, it spread to other nations and by mid 2020 COVID-19 cases were reported in all the countries across the globe. Bhutan confirmed its first Coronavirus case in a 76-year-old man tourist from the United States of America on 6th March 2020. The man tested positive in Thimphu (www.bbs.bt).

Corresponding author: Email: tshetentshering9308067@education.gov.bt;

The Royal Government of Bhutan immediately restricted the visit of tourist in the country. Schools across the nation were closed on 18th March 2020 as a preventive measure to protect from COVID-19 infection. The Kingdom of Bhutan experienced its first nationwide lockdown due to pandemic on 11th August 2020 freezing the movement of people and vehicles throughout the country to combat the deadly COVID-19.

With the detection of first positive case in Bhutan in March 2019, all the schools in Bhutan were closed and teaching learning was shifted to online mode. The online mode consists of lessons delivered by selected teachers via national television (BBS 2) under the coordination of the Ministry of Education. The follow up to the lessons were done by the respective teachers online.

Subsequently, the education system turned to online using Information and Communication Technology (ICT) devices such as internet, laptops, smart phones and broadcast technologies such as TV and radio to deliver the curriculum. However, there were inequalities in digital capacities and access to ICT based learning since many students did not have laptops and smartphones. Many parents too did not have these gadgets to let their children use. [1-5]. With few students, even if they have smart phones their parents were not able to support the data package. Therefore, these children were at a greater risk from achieving the quality learning.

This widespread disruption to face to face teaching and shift to online teaching has negatively impacted student's learning as both the teachers and schools were required to implement online learning on a short notice [3-8]. Further, these teachers had minimal knowledge and skills for teaching in such a format. The students also faced a host of barriers to learning such as lack of parental support, lack of devices such as smart phones, laptop, TV to access online lesson, differing access to internet due to remote location and non-affordability to buy data required to sustain their learning.

In response to the lack of access to online lesson by the students, the Ministry of Education, printed numerous copies of self-instructional materials to reach to the students having no access to devices such as smartphone, TV or radio in far flung remote places.

Further, the Ministry of Education and Royal Education Council developed the curriculum implementation guidelines for Education in Emergencies to ensure that children do not loose instructional hours during the academic year.

2. LITERATURE REVIEW

The schools and educational institutions were temporarily suspended in March 2020 round the globe due to the rise of COVID-19 and moved to online learning model of delivery in majority of the countries in the world. According to United Nation Education, Scientific and Cultural Organization (UNESCO) by the end of April 2020, educational institutions were closed in 186 countries, affecting approximately 74% of total enrolled learners on the planet. In Denmark, Germany, France, Greece and Poland, the formal education system has progressively re-opened in April and May to facilitate assessment and certification, depending on medical advice for de-confinement. Similarly, the Himalayan Kingdom of Bhutan also closed down all the schools and educational institutions following the National Lockdown for two times and reopened the schools in July and September 2020.

According to United Nation International Children's Emergency Fund [9] in South Asia, 430 million children were affected by school closures due to Covid-19. Save the Children (2020) reveals that the devastating consequences of Covid-19 outbreak are set to have on learning. These studies have pointed out the closure of schools will definitely have disadvantages on learning due to irregular services they receive in the school during normal classroom teaching. Moreover, children have to remain home for longer duration without the guidance of teacher and resources required by them. Therefore, the quality of education will be compromised at this period in different ways making children suffer from numerous challenges.

According to United Nation Education Scientific and Cultural Organization (UNESCO), approximately 0.32 billion students in India have been affected by school closures due to the COVID-19 pandemic [10]. Similarly 170806 students in Bhutan have been also affected in 528 schools and 78 extended classrooms (Advanced Encryption Standard, 2020). Exploring on two situations, the dropout rates could be more severe for girls who are often left out of household resource allocation decision (Prakash et al., 2017). The girls mostly undertake the responsibilities of parents to cope with distress in the family. The past evidence suggest that short term disruptions in schooling lead to

permanent dropouts among the poor (Reddy & Sinha, 2020).

The article written by the Spanish secondary school teacher, Fandino-Perez, [11] is convincing on the reflection of virtuality of education and his personalized education demanding in the times of normality where teachers and students should interact and socialize each other definitely taking away the attitude during pandemic. Fandino-Pérez expressed that the pandemic has put us in front of the mirror to see a distorted and absurd image of the work of teachers as producers of programming and good results, which turns them and their students into a kind of machine. Accordingly, the teachers and students are both convinced by the Royal Education Council and Ministry of Education during the pandemic implementing social media modalities launching Education in emergencies where demands are fulfilled when provided with Self-instructional materials and other support for the continuity of education. But most children in the remote places faced numerous problems to receive the curriculum guides and self-instructional materials on time located in rugged terrain. This is all due to far-flung places and students leaving in different locations with parents. It is invented by the pandemic adding the challenges to implement the adapted curriculum to keep students engaged.

The rapid, unexpected and 'forced' transition from face –to –face to remote teaching has entailed a number of challenges and constraints but also opportunities that need to be examined. Exiting literature points to an 'emergency remote teaching' (Bozkurt & Sharma 2020) or 'emergency infrastructure, inexperience of teachers, the information gap (i.e., limited information and resources to all students) and the complex environment at home (Zhang et al., 2020). In addition, lack of mentoring and support (Judd et al., 2020) and issues related to teachers' competencies in the use of digital instruction formats (Huber & Helm, 2020) have also been identified.

2.1 Research Questions

The primary question is, what are the impacts of COVID-19 pandemic on teaching and learning of the students of schools under Thrimshing cluster. To achieve the above question, the following research questions were employed.

1. How did pandemic affect student's learning?

2. What are the challenges faced by the students and teachers with the online lesson?

3. How did the students and teachers feel about Education in Emergencies?

4. What type of support did parents provide during online learning

5. How accessible were the students to online tools?

6. What is the student's experience with Self Instructional Materials?

7. What are the challenges faced by the students and teachers with the assessment practice during online lesson?

2.2 Research Methodology

2.2.1 Introduction

This study explored the impacts of COVID-19 pandemic on the teaching and learning of students of school under Thrimshing cluster, Trashigang Dzongkhag. The method and techniques employed in this study are research design, population and sampling, research instrument and how data were analyzed are discussed below.

2.2.2 Design

The research design used for the study was mixed method. The quantitative data were garnered by administering questionnaires to both the students and teachers. The qualitative data were collected by interviewing seven selected teachers. The two methods were run concurrently.

2.2.3 Population and Sample

The target population for this study consists of 7 teachers and 10 students from class VI – X under Thrimshing School cluster. Seven selected teachers from the cluster were interviewed through survey. Each interview lasted between 30-40 minutes.

2.2.4 Data Analysis

The quantitative data were analyzed using excel and percentage method. The qualitative data

were analyzed using themes that are relevant to the research questions and to the themes that emerged from the quantitative data.

3. RESULTS AND DISCUSSIONS

This section presents the impact of covid-19 pandemic on teaching and learning of students through the following themes namely:

3.1 Teacher's Experience with Education in Emergencies

The quantitative data revealed that majority of the teachers (53%) had positive experience with Education in Emergencies (EiE) as reflected in Table 1. In particular, all the survey respondents expressed that EiE has helped students explore new technologies to assist their learning (100%) and EiE kept students very busy with academic activities through smartphones and other apps (100%).

Besides, the data also revealed that most of the teachers pointed that they enjoyed EiE mode of teaching (71%), EiE is good for effective learning (57%) and learning has impacted students positively (57%) as reflected in Table 1.

The qualitative data too revealed that they had a positive experience with EiE. For instance, Teacher 2 (T2) expressed that;

> EiE was a positive experience for me as I got introduced to numerous online tools and social media aps to teach lesson to the children. I can also make my lesson interesting by using online resources such as you tube videos and animations to teach difficult concepts.

The above idea was further supported by Teacher 4 that:

> EiE was a new learning experience for me. I learnt to use google classroom and other apps such as WeChat and WhatsApp to teach online lesson and share resources to the students. I also learned to help student to share their homework through WhatsApp and teachers can correct and give feedback. We can also conduct test on line. These are the new things I learnt from EiE.

However, though the respondents find EiE enjoyable and help students learn, they also revealed the other side of EiE. For instance, all the participants (100%) expressed that they found it difficult to implement EiE in teaching as it is a new concept for them to deliver the lesson. Further majority of them revealed that EiE posed has some financial implications as they have to pay for the data package to support online lesson.

3.2 Teachers Experience with the Closure of Schools

The quantitative data revealed that all the teacher (100%) respondents opined that the closure of school has hampered students learning as reflected in Table 2. Some of the reasons cited by the teachers that hindered student's learning include lack of nutritional meals (85%) in the schools due to frequent lockdown, lack of interactions among friends to discuss academic matters (85%), lack of academic guidance and counselling from the teachers (71%), as occurred in the usual classroom settings as reflected in Table 2.

Table 1. Education in Emergencies (Teachers)

SI #	Items	Yes	No
1	EiE is good for effective learning	4 (57%)	2
2	EiE made teaching easier	3	4
3	EiE can make children explore new technologies	7 (100%)	0
4	EiE has positive impact for children learning	4 (57%)	3
5	EiE has personal no financial implication online teaching	3	4 (57%)
6	EiE is easy to implement in teaching	0	4
7	EiE kept children busy in academic engagement using Phones and Apps	7 (100%)	0
8	EiE has enhance children learning using phones	4 (57%)	2
9	EiE is new concepts to our Teachers and easy deliver lesson	0	7 (100%)
10	I enjoy EiE teaching	5 (71%)	2
	Total	37 (53%)	28 (40%)

Further, the teacher respondents also expressed that majority of the parents were worried about their children's education (100%). These shows that the closure of schools has immensely affected the teaching and learning in general.

However, the students were able to maintain sanitation as 57% of the teachers responded NO to the statement *Closure of school affected children's sanitation* as reflected in Table 2.

3.3 Students Experience's with the Closure of School

The quantitative data revealed that all (100%) the students respondents in general are not happy with the closure of schools due to pandemic as evident from the average percentage of respondents who expressed they were not happy with closing schools in Bhutan (100%) since they missed their friends and teachers (100%) and face to face teaching and learning (100%). The students missed their schooling so much that (90%) of them wish if they could come back to the school as revealed in Table 3. The student data also confirms the view of teachers reflected in Table 2 that the closure of face to face classes has hampered teaching and learning.

The other problems experienced by the students were lack of academic support from their parents at home as though the parents have concern for their children's education during the closure of school however, 80% of the respondent's parents were uneducated as reflected in Table 3.

In particular, the respondents expressed (100%) that they faced numerous challenges in terms of having uneducated parents at home as reflected in Table 3.

Besides, the data also revealed that (90%) the students has also expressed that (90%) of them liked food served at home and (100%) of them did not face problems with food at home. However, about (50%) of the students missed the nutritious food served at school.

3.4 Teachers Experiences with the Social Media and Google Classroom Teaching

The quantitative data revealed that majority of the teachers had negative experience with the social media and google classroom teaching during pandemic as it is a new concept for the teachers as reflected in Table 4.

For instance, majority of the teacher respondents expressed that they find difficult to use google classroom (57%) and lack confidence to teach using google classroom (57%). The problem is further aggravated when their students could not participate in the google teaching (100%) owing to lack of smartphone (71%). Those students with smartphones could not afford data package to connect to the google classroom (57%) as reflected in Table 4.

The finding also revealed that the teachers were not confident in using google classroom (57%) and did not enjoy the google classroom teaching (57%) as it was in the real classroom teaching. As responded by the teachers, the students were unable to use mobile phone in the google classroom teaching (57%).

Table 2. Closure of Schools (Teachers)

SL.No	Questions	Response	
		Yes	No
1.	Closure of school hampered students learning	7(100%)	0
2	Closure of school affected children to receive nutritional meals	5 (71%)	2
3	Closure of school affected children to receive standard meal as per the menu	6 (85%)	1
6	Closure of school affected children's sanitation	3	4 (57%)
7	Closure of school affected children's interaction with pure groups	6 (85%)	1
8	Closure of school affected to provide Counselling service to the children	5 (71%)	2
9	Closure of school affected the children's attending the school	5 (71%)	2
10	Closure of school made parents to worry of their children's learning.	7 (100)	0
		44 (63%)	12 (17%)

Table 3. Closure of School (Students)

SL.No	Questions	Respond	
		Yes	No
1	Did you feel happy of closing school in Bhutan?	0	10 (100%)
2	Did you miss the schooling?	9	1
3	Did you miss your friends and teachers?	10 (100%)	0
4	Did you miss face to face teaching learning?	10 (100%)	0
5	Did you feel like coming to school?	9 (90%)	1
6	Do you get worry of reopening school?	8 (80%)	2
7	Did you like the food served at home?	10 (100%)	0
8	Did you miss the nutritious food served at school?	5 (50%)	4
9	Did you face problems with food at home?	0	10 (100%)
10	Will it be good if school remain closed for longer period?	1	9 (90%)
11	Did you face challenges during the closure of school?	10 (100%)	0
12	Were parents worry of your education?	10 (100%)	0
13	Did your parents encourage you to study?	9 (90%)	1
14	Were your parents/brother and sisters happy of closing school?	1	9 (90%)
15	Did you face challenges studying at home?	9 (90%)	1
16	Did your parents, brother and sister help you to study at home?	8 (80%)	2
17	Were they able to help you in studies?	4	6 (60%)
18	Did you get well exposed to online learning during the closure of school?	1	8 (80%)
19	Is your parent/guardian educated?	2	8 (80%)
	Total	137 (65%)	65 (13%)

The qualitative data to affirmed that the teachers were not very confident with the use of social media and google classroom.

For instance teacher 5 expressed;

> Frankly speaking we are finding it difficult to use online mode of teaching as it for the first time most of us are using google classroom and mobile apps. Online lesson would be good if both the teachers and students were given some orientation on the use of online devices.

The students are finding it even more difficult as most of them do not have devices such as mobile and laptop. Few who are doing must be getting support from their parents.

Despite of numerous challenges, the Students who had smartphones with good internet connection were able to interact with their teachers through social media apps. All the students did not participate in the google classroom teaching due to the non-availability of internet connection and smart phones.

Table 4. Social Media and Google classroom teaching (Teachers)

SL.No	Questions	Response	
		Yes	No
1	Did you enjoy google classroom teaching?	3	4 (57%)
2	Were you confident to teach using google classroom?	3	4 (57%)
4	Did you find difficulties to teach using google classroom?	4 (57%)	3
9	Are your students able to afford mobile phones?	2	5 (71%)
10	Are your students able to use mobile phone for google classroom teaching?	3	4 (57%)
11	Did you face challenges to deliver your lesson using google classroom?	4 (57%)	2
12	All the students participate in the google classroom teaching	0	7 (100%)
13	All the students were able to connect to internet	0	7 (100%)
	Total	27 (38%)	42 (60%)

3.5 Students Experiences with the Social Media and Google Classroom Teaching

The quantitative data revealed that in general majority of the students had positive experience with the social media and google classroom teaching as reflected in Table 5. For instance, the data revealed that majority of them (90%) have television at home and majority of them (90%) attended google classroom. Further majority of the students revealed that the students liked the video lesson shared by the teacher (100%).

However, in particular for half of the student respondents (50%) the lessons aired through BBS TV channel were not clear and understandable and 40% of them said that BBS airing time was convenient. 70% of the students stated that google classroom teaching was unsuccessful due to poor network problem and mobile data shortage.

Though the students were quite positive about the online lesson being delivered through platforms such as social media and google classroom as they may have been fascinated by change in mode of learning from face to face teaching on line learning mode however, it affected their learning from erratic TV connection and online lessons being aired at odd hours. Thus confirming the negative experience teachers had with the social media and google classroom as expressed in the earlier section.

3.6 Teachers Experiences with Self-Instructional Materials

The teachers were quite positive about the distribution of *Self-Instructional Materials (SIM)* by the Ministry of Education to the concerned schools and further distribution of SIM to schools under the Dzongkhag by the teachers and local leaders as reflected in Table 6. For instance, the survey data revealed that the schools received copies of SIM on time (100%) and the schools in turn distributed it to their students (100%). Amongst them 71% of teachers personally reached the SIM to the students despite the challenges of negotiating hilly terrain, swollen rivers, road blocks, and leech infested forest. In some pockets of the village, local leaders were employed to drop the SIM to the students.

Majority of the teachers were also happy with the number of SIM copies distributed to schools as evidenced from the data that 71%of teacher participants responded that they have enough copies of SIM for the children distributed by the Ministry of Education.

Most of teachers (71%) tackled the challenges by making the local leaders to reach it to the students and in some cases teachers delivering the materials personally.

The qualitative data conformed that teachers were quite positive about the SIM prepared by the MoE and circulation of SIM carried out by the schools and local leaders under the management of Dzongkhag Education Officer. For instance Teacher 2 expressed:

> I found that SIM very friendly and helpful for students to refer as a supplementary materials to what is being shared through google classroom. In-fact SIM is very comprehensive and can be used as a resource if the pandemic continues. Considering the importance of SIM, we did our best to reach SIM to the students.

Table 5. Social Media and google classroom (students)

Sl.No	Questions	Response	
		Yes	No
1	Do you have Television in your house?	9 (90%)	1
2.	Were BBS TV channel clear and understandable?	5 (50%)	5 (50%)
3.	Were BBS airing time convenient?	4 (40%)	5 (50%)
4.	Do you have internet connection at home?	1	9 (90%)
5.	Did you attend google classroom teaching?	9 (90%)	1
6.	Did you like to attend it?	8 (80%)	2
7.	Is this mode of teaching successful?	3	(70%)
8.	Did you enjoy online lesson?	8 (80%)	2
9.	Did your teacher support on google classroom?	9 (90%)	1
10.	Did you like the video lesson shared by your teacher?	10 (100%)	0

Table 6. Self-Instructional Materials (teachers)

SL.No	Questions	Response	
		Yes	No
1	Did your school receive the SIM?	7 (100%)	0
2.	Did your school distribute the SIM to the children?	7 (100%)	0
3	Did you reach the SIM to the children?	5 (71%)	2
4	Are SIM copies enough for the children?	5 (71%)	2
5	Did you face challenges while reaching SIM?	4 (57%)	3
6	Did you tackle any challenges faced by children?	5 (71%)	2
	Total	33 (48%)	9(13 %)

3.7 Students Experiences with Self-Instructional Materials

Unlike teachers, the students had negative experiences with self-instructional materials (SIM) as reflected in Table 7. For instance, a majority (70%) of the students respondent expressed that they did not get the SIM all the time from the school and (60%) of them received the SIM only for twice.

Further, 60% of them and faced difficulties to learn from SIM and they didn't get help from teachers to solve problems for clear doubts rom the SIM (50%). They further opined that their parents were unable to help with SIM as they lack formal education (60%). Moreover, they also expressed that though they have elder (60%) of their brothers and sisters but they were not able to help them to learn from SIM as they SIM was new to them.

In particular, all the student respondents expressed that they did not enjoy learning from SIM (50%) as most of them did not get the SIM all the time from the school (70%) and teachers did not reach the SIM to their house (80%). The data also revealed that only (50%) of the students responded that they didn't get help from teachers to solve problems from the SIM.

3.8 Teacher's Experiences with Assessment

The quantitative data revealed that the majority of the teachers (100%) had a positive experiences with the assessment carried out with the students during pandemic as reflected in Table 8. For instance, all the teacher respondents expressed that they were able to assess the students work and maintain the record of students (100%).

Table 7. Self-Instructional Materials (students)

Sl.No	Questions	Response	
		Yes	No
1	Did you enjoy learning from SIM?	5 (50%)	5 (50%)
2	Did you receive SIM all the time from your school?	3	7 (70 %)
3	Did your teacher reach the SIM in your house?	2	8 (80 %)
4	Did your teacher help to solve questions from the SIM?	5 (50%)	5 (50%)
5	Did your parents help to clear the doubts of SIM?	4	6 (60%)
6	Did you face challenges to learn from SIM?	5 (50%)	4
7	Did your brothers and sister help to learn from SIM?	5 (50%)	4
8	I have received SIM for twice only	4	6 (60%)
9	Is your parent educated to teach you and solve problems?	3	7 (70%)
10	Is your village connected to the road?	10 (100%)	0
11	Is your village located in the remote place?	9 (100%)	1
12	Is your village located in the town?	2	7 (70%)
13	Did you feel interest to study with SIM?	5 (50%)	4
14	Did SIM affect your studies?	5 (50%)	2
15	My parents did not supported my learning	4	5 (50%)
		71 (47%)	71 (47%)

The data too revealed that (57%) of teachers couldn't meet students for assessment due to the long distance they had to negotiate to visit them for the assessment, so they had to assess their work online.

The data also revealed that it was not free from challenges as 85% of the teachers expressed that poor network posed problems of assessing student's work. However, they were able to manage it ultimately though the assessment task got delayed.

The above discussion are further supported by Teacher 3 that:

> The assessment of student work was a challenge due to the remote location of students residence and poor network however they were able to tackle the challenges faced by the students by calling their parents and instructing them to help their children send their academic work through apps specially WhatsApp and WeChat as most parents are quite familiar with these two apps.

3.9 Student's Experiences with Assessment

Unlike the teachers, the students were bit apprehensive about the way assessment was carried out by the teachers. For instance, the survey data revealed that only (50%) of the students were satisfied with the assessments carried out by the teachers and further only (60%) of the students liked the way their teacher assessed their work.

Moreover, the teachers were supposed to visit students and assess their work but the students expressed that majority of the teachers (70%) did not visit for assessment. However, the students managed to send their work to the teachers online. For instance, all the students (100%) expressed that they could send their work for assessment to the teachers of which in most cases (80%) it was send with the help of their parents and siblings.

3.10 Teachers Experiences with Counselling

The data shows that though some students suffered from stress during ongoing pandemic, the teachers were able to tackle the stress and depression of the students by convincing and reinforcing them. For instance, the survey data revealed that 43% of teacher respondents expressed that some of their students experienced stressed. However, the teachers could counsel them (100%) and did not have to refer to the counsellors though there are counselor in the school (100%) as reflected in Table 10.

3.11 Students Experiences with Counselling

As reported by the teacher respondents, the student data also revealed that 50% of the student respondents suffered from stress as reflected in Table 11. However, as reported in the earlier section, the teachers (70%) helped them with the problem though there were counsellors available in the school. Majority of the students (60%) also expressed that when they get stressed or face problem, they share with the parents and sibling for help.

Table 8. Assessment (Teachers)

SL No.	Questions	Response	
		Yes	**No**
1	Were you able to assess your students work?	7 (100%)	0
2.	Did you maintain the assessment record of the students?	7 (100%)	0
3	Were you able to assess the work of all the students?	4 (57)	3
4	Were you able to meet students for assessment?	3	4 (57)
5	Did you face challenges during assessment?	6 (85%)	1
6	Were you able to tackle the challenges faced by children during assessment?	6 (85 %)	1
	Total	33 (48%)	9 (13%)

Table 9. Students experience's with assessment

Sl.No	Questions	Response	
		Yes	No
1.	Did you get your work assess?	9 (90%)	1
2	Did you send your work for assessment to the teacher?	10 (100%)	0
3	Did your teacher assess your work?	9 (90%)	1
4	Problem faced to send the work for assessment to the teacher.	6 (60%)	4
5	Did your parents/brothers and sister help you to send your work for assessment?	8 (80%)	2
7	Did your teacher come to assess your work?	3	7 (70%)
8	Were you satisfied with your assessment received from your teachers?	5 (50%)	5
9	Do you like the way that your teacher assess your work?	6 (60%)	4
10	Challenges faced with the assessment	8 (80%)	2
		66 (60.6%)	34 (30.4%)

Table 10. Counselling (Teachers)

SL.No	Questions	Response	
		Yes	No
1	Did your student suffer from stress?	3 (43%)	4 (57)
2.	Were you able to counsel them?	7 (100 %)	0
3	Do you have counsellor in your school?	7 (100%)	0
4	Did you ask for any help?	1	6 (85%)
5	Did you face challenges to counsel your student?	1	6(85%)
6	Were you able to tackle the challenges faced by children during stress/depression?	5	6 (85%)
	Total	24 (34%)	18 (25%)

Table 11. Counselling (students)

Sl.No	Questions	Response	
		Yes	No
1.	Do you have counsellor in the school?	5 (50)	5
2	Faced problem of controlling your mind	4	6 (60)
3	Did you call for counselling?	0	10 (100)
4	Did you get stress/depress?	5 (50%)	5
4	Did you share your problem to your parents/brother/sisters?	6 (60%)	4
5	Did teachers in the school help you to solve your problem?	7 (70%)	3
6	Will it be helpful of getting counselling?	9 (90%)	0

4. CONCLUSION

The education system in Bhutan follows conventional face-to-face teaching in all education institutions, including schools, colleges, and universities except for some colleges where some component of instructions are being done online in a blended approach. After the declaration of closure of educational institutions due to COVID-19 pandemic, the teaching and learning shifted to online mode in all the schools and colleges.

This study explored the perceptions of school teachers and students towards the online schooling process and its impact on their teaching and learning. However, I have received a mixed result. Most teachers that participated in the study are positive about the online mode of teaching however, students were not very happy out this shift as they were in the receiving end. For instance, online mode of schooling has created discrimination between rural and urban students, between the students having laptops/PCs and mobile phone than the ones who do not have, between students having access to internet and without internet. Thus, a sustainable learning and teaching medium is affected.

Since the shift to online teaching was sudden, both the teachers and students did not get time to prepare and get used to online mode. The children from remote locations were effected the most in terms of learning compared to their friends from urban homes. Students in the remote areas also faced issues with power outrage and poor TV connectivity which affected their online lesson. Therefore, their participation in online schooling is often affected.

The Education in Emergencies was initiated by the Ministry of Education to support the online learning through the provision of the having lessons broadcast through national TV, distribution of Self Instructional Materials to all the students through door to door service, and teachers visiting students to evaluate assignments and home work. The Education in Emergencies was well received by most of the teachers and students.

5. RECOMMENDATIONS ON FURTHER IMPROVEMENT DURING PANDEMIC

Based on my findings I would like to propose the following recommendations for considerations by the different stakeholders.

1. Majority of the teachers in the study expressed that online mode is a good alternative way of teaching in such pandemic. Teachers have gained a fairly good knowledge about the online tools for teaching. However, since it is happening for the first time, it is difficult to judge its efficiency and quality. Tutors also have difficulty in conducting and assessing certain component of assessment especially that deals with practical works. So, it is recommended that teachers be provided with adequate training on how to conduct online classes by the Ministry of Education.

2. It was found that not all the students attended online learning lesson regularly at the given time as though they have TV but had problems with the connectivity. Further, majority of them could not attend to task and activity given by the teachers since majority of the students did not have laptop or smart phone. Further, those students with smart phones could not afford data package. It is recommended that the Ministry of Education to initiate a plan to provide smart phones to the needy students on a concession rate. Further, if MoE could liaise with Bhutan Telecom or Tashi cell and provide free data package to support students during online lesson.

3. Observing the needs and challenges for both teachers and students living in the remote schools , it is recommended that Department of School Education, Ministry of Education, to plan and provide free data's to the teachers and students for effective implementation of the online classes as and when required during the pandemic .

4. The students in remote schools were found that they were unable to attend the online classes effectively without proper guidance and monitoring, it is recommended that the Department of School Education, Ministry of Education to direct the EMD in collaboration with Dzongkhag Education Office , to closely monitor the schools during online classes.

5. It was found that the teachers provides different tools to the students for various assessment through stake holders via online programme and with printed materials. The students faced lots challenges to solve the questions and submit their works to the teachers for necessary assessment. To avoid from such scenario, it is recommended that the Dzongkhag Education Office and Department of School Education to instruct schools to direct teachers to make door to door visit during the pandemic for necessary assessment and monitoring for effective teaching and learning.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Author has declared that no competing interests exist.

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APPENDIX I: QUESTIONNAIRE FOR TEACHERS

Dear sirs/Madam,

Please be patient to response on the following questions which would help me to write a small report on the challenges faced in our system during this COVID-19 pandemic.

Do kindly tick your response against the statement provided either **Yes or No** in the given column. Your response will remain confidential.

Closure of Schools

SL.No	Questions	Response	
		Yes	No
1.	Closure of school and institution hampered students learning		
4	Closure of school affected children to receive nutritional meals		
5	Closure of school affected children to receive standard meal as per the menu		
6	Closure of school affected children's sanitation		
7	Closure of school affected children's interaction with pure groups		
8	Closure of school affected to provide Counselling service to the children		
9	Closure of school affected the parents for providing education		
10	Closure of School affected the income of the business people		
11	Closure of school made parents to worry of their children's learning.		

2. What were some of the impact faced during the closure of school?
3. How did you tackle?

Do kindly tick your response against the statement provided either **Yes or No** in the given column. Your response will remain confidential.

Education in Emergencies

Sl.No	Questions	Response	
		Yes	No
1.	EiE is good for effective learning		
2	EiE made teaching easier		
3	EiE can make children explore to new technologies		
4	EiE has negative impact for children learning		
5	EiE has personal financial implication online teaching		
6	EiE is difficult to implement in teaching		
7	EiE made children's busy using Phones and Apps		
8	EiE has enhance children learning using phones		
9	EiE is new concepts to our Teachers to deliver lesson		
10	I enjoy EiE teaching		

2. What were some of the impact faced during the closure of school?
3. How did you tackle it?

Do kindly tick your response against the statement provided either **Yes or No** in the given column. Your response will remain confidential.

Social Media and Google classroom teaching

SL.No	Questions	Response	
		Yes	No
1	Did you enjoy google classroom teaching?		
2	Were you confident to teach using google classroom?		
3	Are you trained to teach using google classroom?		
4	Did you find difficulties to teach using google classroom?		
5	Were students able to use google classroom?		
6	Did you receive support from parents?		
7	Are parents literate to help their children?		
8	Did you see students interacting with you friendly?		
9	Are your students able to afford mobile phones?		
10	Are your students able to use mobile phone for google classroom teaching?		
11	Did you face challenges to deliver your lesson using google classroom?		
12	All the students participate in the google classroom teaching		
13	All the students were able to connect to internet		

2. What were some of the impact faced while delivering the lesson through social media and google classroom teaching?
3. How did you tackle it?

Do kindly tick your response against the statement provided either **Yes or No** in the given column. Your response will remain confidential.

Self-Instructional Materials

SL.No	Questions	Response	
		Yes	No
1	Did your school receive the SIM?		
2.	Did your school distribute the SIM to the children?		
3	Did you reach the SIM to the children?		
4	Are SIM copies enough for the children?		
5	Did you face challenges while reaching SIM?		
6	Did you tackle any challenges faced by children?		

2. What were some of the impact faced with the Self learning Materials of your respective class?
3. How did you tackle the challenges?

Do kindly tick your response against the statement provided either **Yes or No** in the given column. Your response will remain confidential.

Assessment

SL.No	Questions	Response	
		Yes	No
1	Were you able to assess your students work?		
2.	Did you maintain the assessment record of the students?		
3	Were you able to assess the work of all the students?		
4	Were you able to meet students for assessment?		
5	Did you face challenges during assessment?		
6	Were you able to tackle the challenges faced by children during assessment?		

2. What were some of the impact faced for assessing the student's works of your respective class?
3. How did you tackle the challenges?

Do kindly tick your response against the statement provided either **Yes or No** in the given column. Your response will remain confidential.

Counselling

SL.No	Questions	Response	
		Yes	No
1	Did your student suffer from stress?		
2.	Were you able to counsel them?		
3	Do you have counsellor in your school?		
4	If yes, did you ask for any help?		
5	Did you face challenges to counsel your student?		
6	Were you able to tackle the challenges faced by children during stress/depression?		

2. What were some of the impact faced for counselling the students of your respective class?
3. How did you tackle it?

APPENDIX II: QUESTIONNAIRE FOR STUDENTS

Do kindly tick your response against the statement provided either Yes or No in the give column. Your response will remain confidential.

Closure of School

SL.No	Questions	Respond	
		Yes	No
1	Did you feel happy of closing school in Bhutan?		
2	Did you miss the schooling?		
3	Did you miss your friends and teachers?		
4	Did you miss face to face teaching learning?		
5	Did you feel like coming to school?		
6	Do you get worry of reopening school?		
7	Did you get balance diets at home?		
8	Did you get nutritious food at home?		
9	Did you like the food served at home?		
10	Did you miss the nutritious food served at school?		
11	Did you face problems with food at home?		
12	Will it be good if school remain closed for longer period?		
13	Did you face challenges during the closure of school?		
14	Were parents worry of your education?		
15	Did your parents encourage you to study?		
16	Were your parents/brother and sisters happy of closing school?		
17	Did you face challenges studying at home?		
18	Did your parents, brother and sister help you to study at home?		
19	Were they able to help you in studies?		
20	Did you get well exposed to online learning during the closure of school?		
21	Is your parent/guardian educated?		

2. What were some of the impact faced during the closure of School?
3. How did you tackle it?

Do kindly tick your response against the statement provided either **Yes or No** in the given column. Your response will remain confidential.

Social Media and google classroom

Sl.No	Questions	Response	
		Yes	No
1	Do you have Television in your house?		
2	Do you have mobile phone?		
3.	Do you have radio in your house?		
4	Do you have internet connection at home?		
5	Did like to use TV/Phone and radio?		
6.	Did you attend google classroom teaching?		
7	Did you like to attend it?		
8	Did you face problem while attending the google classroom teaching?		
9	Did the google classroom teaching effect your studies?		
10	Is teaching is good when there is no pandemic?		
11	Is teaching not good when there is pandemic?		
12	Did you enjoy online lesson?		
13	Did your teacher support on google classroom?		
14	Were BBS TV channel clear and understandable?		
15	Were BBS airing time convenient?		
16	Were you able to understand the language in google classroom?		
17	Did you like the video lesson shared by your teacher?		

2. What were some of the impact faced with google classroom learning?
3. How did you tackle it?

Do kindly tick your response against the statement provided either **Yes or No** in the given column. Your response will remain confidential.

Self-Instructional Materials

Sl.No	Questions	Response	
		Yes	**No**
1	Did you enjoy learning from SIM?		
2	Did you receive SIM all the time from your school?		
3	Did your teacher reach the SIM in your house?		
4	Did your teacher help to solve questions from the SIM?		
5	Did your parents help to clear the doubts of SIM?		
6	Did you face difficulties to learn from SIM?		
7	Did your brothers and sister help to learn from SIM?		
8	I have not SIM received for once also		
9	I have received SIM for twice only		
10	Is your parent educated to teach you and solve problems?		
11	Is your village connected to the road?		
12	Is your village located in the remote place?		
13	Is your village located in the town?		
14	Did you feel interest to study with SIM?		
15	Did SIM affect your studies?		
16	My parents never supported my learning		

2. What were some of the impact faced learning through SIM?
3. How did you tackle it?

Do kindly tick your response against the statement provided either **Yes or No** in the given column. Your response will remain confidential.

Assessment

Sl.No	Questions	Response	
		Yes	**No**
1.	Did you get your work assess?		
2	Did you send your work for assessment to the teacher?		
3	Did your teacher assess your work?		
4	Did you get score (marks) from your teacher?		
5	Did you face problem to send your work for assessment to the teacher?		
6	Did your parents/brothers and sister help you to send your work for assessment?		
7	Were you able to solve the problem for sending the work for assessment?		
8	Did your teacher come to assess your work?		
9	Did you get satisfied with your assessment received from your teachers?		
10	Do you like the way that your teacher assess your work?		
11	Did you face challenges with the assessment?		

2. What were some of the impact   faced in assessment?
3. How did you tackle   it?

Do kindly tick your response against the statement provided either **Yes or No** in the given column. Your response will remain confidential.

Counselling

Sl.No	Questions	Response	
		Yes	No
1.	Do you have counsellor in the school?		
2	Did you face problem controlling your mind?		
3	Did you call for counselling?		
4	Did you get stress/depress?		
4	Did you share your problem to your parents/brother/sisters and school counsellor?		
5	Did school counsellor/parent/brothers and sister help you to solve your problem?		
6	Will it be helpful if you have counsellor nearby you?		
7	Did you face challenges of not having counselling?		
8	Will it be necessary for counselling during this COVID-19 pandemic?		
9	Were your parents able to convince you during this pandemic?		
10	Will it be helpful of counselling?		

2. What were some of the impact faced of counselling?
3. How did you tackle your problem?

APPENDIX III: TABULATION OF RESEARCH DATA OF TEACHERS

Closure of Schools

SL.No	Questions	Response	
		Yes	No
1.	Closure of school hampered students learning	7	0
4	Closure of school affected children to receive nutritional meals	5	2
5	Closure of school affected children to receive standard meal as per the menu	6	1
6	Closure of school affected children's sanitation	3	4
7	Closure of school affected children's interaction with pure groups	6	1
8	Closure of school affected to provide Counselling service to the children	5	2
9	Closure of school affected the parents for providing education	5	2
10	Closure of school made parents to worry of their children's learning.	7	0

Education in Emergencies

Sl.No	Questions	Response	
		Yes	No
1.	EiE is good for effective learning	4	2
2	EiE made teaching easier	3	4
3	EiE can make children explore to new technologies	7	0
4	EiE has negative impact for children learning	3	4
5	EiE has personal financial implication online teaching	4	3
6	EiE is difficult to implement in teaching	4	3
7	EiE made children's busy using Phones and Apps	7	0
8	EiE has enhance children learning using phones	4	2
9	EiE is new concepts to our Teachers to deliver lesson	7	0
10	I enjoy EiE teaching	5	2

Social Media and Google classroom teaching

SL.No	Questions	Response	
		Yes	No
1	Did you enjoy google classroom teaching?	2	4
2	Were you confident to teach using google classroom?	3	4
3	Are you trained to teach using google classroom?	4	3
4	Did you find difficulties to teach using google classroom?	4	3
5	Were students able to use google classroom?	4	3
9	Are your students able to afford mobile phones?	2	5
10	Are your students able to use mobile phone for google classroom teaching?	3	4
11	Did you face challenges to deliver your lesson using google classroom?	4	2
12	All the students participate in the google classroom teaching	0	7
13	All the students were able to connect to internet	0	7

Self-Instructional Materials

SL.No	Questions	Response	
		Yes	**No**
1	Did your school receive the SIM?	7	0
2.	Did your school distribute the SIM to the children?	7	0
3	Did you reach the SIM to the children?	5	2
4	Are SIM copies enough for the children?	5	2
5	Did you face challenges while reaching SIM?	4	3
6	Did you tackle any challenges faced by children?	5	2

Assessment

SL.No	Questions	Response	
		Yes	**No**
1	Were you able to assess your students work?	7	0
2.	Did you maintain the assessment record of the students?	7	0
3	Were you able to assess the work of all the students?	4	3
4	Were you able to meet students for assessment?	3	4
5	Did you face challenges during assessment?	6	1
6	Were you able to tackle the challenges faced by children during assessment?	6	1

Counselling

SL.No	Questions	Response	
		Yes	**No**
1	Did your student suffer from stress?	3	4
2.	Were you able to counsel them?	7	0
3	Do you have counsellor in your school?	7	0
4	If yes, did you ask for any help?	1	6
5	Did you face challenges to counsel your student?	1	6
6	Were you able to tackle the challenges faced by children during stress/depression?	5	2

APPENDIX IV: TABULATION OF RESEARCH DATA OF STUDENTS

Closure of School

SL.No	Questions	Respond	
		Yes	**No**
1	Did you feel happy of closing school in Bhutan?	0	10
2	Did you miss the schooling?	9	1
3	Did you miss your friends and teachers?	10	0
4	Did you miss face to face teaching learning?	10	0
5	Did you feel like coming to school?	9	1
6	Do you get worry of reopening school?	8	2
7	Did you get balance diets at home?	7	3
8	Did you get nutritious food at home?	10	0
9	Did you like the food served at home?	9	0
10	Did you miss the nutritious food served at school?	5	4
11	Did you face problems with food at home?	0	10
12	Will it be good if school remain closed for longer period?	1	9
13	Did you face challenges during the closure of school?	10	0
14	Were parents worry of your education?	10	0
15	Did your parents encourage you to study?	9	1
16	Were your parents/brother and sisters happy of closing school?	1	9
17	Did you face challenges studying at home?	9	1
18	Did your parents, brother and sister help you to study at home?	8	2
19	Were they able to help you in studies?	5	4
20	Did you get well exposed to online learning during the closure of school?	1	8
21	Is your parent/guardian educated?	2	8

Social Media and google classroom

Sl.No	Questions	Response	
		Yes	**No**
1	Do you have Television in your house?	9	1
2	Do you have mobile phone?	10	0
3.	Do you have radio in your house?	3	7
4	Do you have internet connection at home?	1	9
5	Did like to use TV/Phone and radio?	10	0
6.	Did you attend google classroom teaching?	9	1
7	Did you like to attend it?	8	2
8	Did you face problem while attending the google classroom teaching?	8	2
9	Did the google classroom teaching effect your studies?	8	2
10	Is teaching is good when there is no pandemic?	8	0
11	Is teaching not good when there is pandemic?	7	2
12	Did you enjoy online lesson?	8	2
13	Did your teacher support on google classroom?	9	1
14	Were BBS TV channel clear and understandable?	5	5
15	Were BBS airing time convenient?	4	3
16	Were you able to understand the language in google classroom?	7	3
17	Did you like the video lesson shared by your teacher?	10	0

Self-Instructional Materials

Sl.No	Questions	Response	
		Yes	No
1	Did you enjoy learning from SIM?	5	5
2	Did you receive SIM all the time from your school?	3	7
3	Did your teacher reach the SIM in your house?	2	8
4	Did your teacher help to solve questions from the SIM?	5	5
5	Did your parents help to clear the doubts of SIM?	4	6
6	Did you face difficulties to learn from SIM?	5	4
7	Did your brothers and sister help to learn from SIM?	5	4
8	I have not SIM received for once also	4	6
9	I have received SIM for twice only	4	6
10	Is your parent educated to teach you and solve problems?	3	7
11	Is your village connected to the road?	10	0
12	Is your village located in the remote place?	9	1
13	Is your village located in the town?	2	7
14	Did you feel interest to study with SIM?	5	4
15	Did SIM affect your studies?	5	2
16	My parents never supported my learning	4	5

Assessment

Sl.No	Questions	Response	
		Yes	No
1.	Did you get your work assess?	9	1
2	Did you send your work for assessment to the teacher?	10	0
3	Did your teacher assess your work?	9	1
4	Did you get score (marks) from your teacher?	8	2
5	Did you face problem to send your work for assessment to the teacher?	6	4
6	Did your parents/brothers and sister help you to send your work for assessment?	8	2
7	Were you able to solve the problem for sending the work for assessment?	2	8
8	Did your teacher come to assess your work?	3	7
9	Did you get satisfied with your assessment received from your teachers?	5	5
10	Do you like the way that your teacher assess your work?	6	4
11	Did you face challenges with the assessment?	8	2

Counselling

Sl.No	Questions	Response	
		Yes	No
1.	Do you have counsellor in the school?	5	5
2	Did you face problem controlling your mind?	4	6
3	Did you call for counselling?	0	10
4	Did you get stress/depress?	5	5
4	Did you share your problem to your parents/brother/sisters and school counsellor?	6	4
5	Did school counsellor/parent/brothers and sister help you to solve your problem?	7	3

Sl.No	Questions	Response	
		Yes	No
6	Will it be helpful if you have counsellor nearby you?	8	2
7	Did you face challenges of not having counselling?	6	3
8	Will it be necessary for counselling during this COVID-19 pandemic?	8	2
9	Were your parents able to convince you during this pandemic?	9	0
10	Will it be helpful of counselling?	9	0