RESEARCH ARTICLE

The Use of E-learning in Teaching Social Studies to Grade Six Bhutanese Students During Covid -19 Pandemic

BON VIEW

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Abstract: The detection of the first COVID-19 case on 5th March 2020 in Bhutan resulted in the closure of schools across the country. To proceed with the academic curriculum, there was a shift from the regular learning process to e-learning. Lessons were delivered through television and radio which were supplemented with Google classroom, Youtube, and WeChat. Thus, this study explored the effects of e-learning in teaching sixth-grade Bhutanese students during the COVID - 19 pandemic. A qualitative study was conducted in one of the primary schools in Bhutan. A Google form was used in collecting data. Thematic analysis was employed to analyze the data collected through semi-structured interviews. The responses collected from 20 participants indicated that e-learning is effective in the development of knowledge and skill, and enhances engagement and self-confidence. E-learning provides opportunities to work independently at their convenience. However, the study also confirms that the implementation of e-learning faces several challenges. Participants felt limited gadgets, lack of knowledge of e-learning, and unfavourable home environment as major obstacles to the success of e-learning. Therefore, stakeholders need to support schools to make e-learning effective in the teaching and learning process.

Keywords: COVID-19, E-learning, primary school, information and communication technology, social studies

1. Introduction

Bhutan is a small country in terms of both geography and population in the Eastern Himalayan region. It is surrounded by two massive countries: China to the north and India to the south. The Modern Education system was introduced in Bhutan in the 1960s. Before that, education was provided only by monasteries (REC,2018). Information and Communication Technology(ICT) was first introduced into Bhutanese education in the late 1990s, with ICSE Computer Studies provided in a few high schools. The then Ministry of Health and Education began working to implement ICT education in early 2000. In eight high schools, computer application was offered as an elective topic in class IX in 2002. The Ministry of Education launched the Education Sector ICT Master Plan iSherig (2014-2018) to harness ICT as an enabling tool in teaching and learning, as well as to rationalize and streamline ICT activities, systems, and projects under the MoE and across the education sector, as recommended in the e-Gov Masterplan 2012. As part of the iSherig implementation, the Ministry of Lessons evaluated the Chiphen Rigphel Project's ICT literacy curriculum and began introducing literacy with ICT from class IV in the 2017 academic session, with some coding education(Lhendup,2020).

However, in Bhutan, only tertiary institutions have

adopted the virtual learning environment advocated in iSherig-1, and e-learning for school education has not been implemented (MoE,2019). According to a school survey done as part of the iSherig-1 evaluation, 47 per cent of schools lack school-based ICT training for instructors. In 2017, the ICT literacy curriculum was implemented for grades IV-VI, and in 2018 for classes VII-VIII. Even though 98% of secondary schools and 20% of primary schools have at least one computer lab, the labs lack adequate computers, preventing the effective implementation of the ICT curriculum and integration of ICT in teaching and learning. Furthermore, pupils' access to digital devices is restricted to ICT classrooms exclusively (MoE,2019).

The first covid19 case in Bhutan was detected on 5 March 2020. To impede the virus transmission and to safeguard children and staff's health, schools across the country were closed from 18 March 2020 until further notice. As face-to-face teaching and learning were not attainable during this global pandemic, numerous platforms ranging from broadcasting services like television and radio to Google Classroom, YouTube, social media, and print media were introduced to deliver the curriculum. In line with this, one focal teacher from each school is trained on the use of Google Classroom. They in turn train other teachers in their respective schools by the first week of May 2020 and start supporting the students through Google Classroom. However, E-learning is very new to Bhutanese youths, especially at the primary level. Nevertheless, teachers across the nation implemented all the modalities

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of e-learning platforms suggested by the Ministry of Education to continue educating and engaging children meaningfully (MoE,2020).

2. Research Objective

To explore the effects of e-learning in teaching social studies to sixth-grade Bhutanese students.

2.1 Research Methodology

2.1.1 Participants and Context

Participants for this study were ten male and ten female students from one of the primary schools in Bhutan. Since the goal of the study was to examine the effects of e-learning, it was important to choose the participants from sixth grade as they got orientation on e-learning. The confidentiality of the participant was maintained using a numbering system such as S1, S2....S20.

2.1.2 Instruments

This research included two instruments:

E-learning platforms: Google classroom, Wechat, YouTube, and Messenger.

Interview: To investigate the effects of e-learning, the researcher developed 10 semi-structured interview questions. All 20 participants of the study were interviewed to understand the details of the issues. As participants got orientation on the use of Messenger, Telegram, and Google Meet, these three platforms were used in conducting the interview.

2.2 Data Collection

The researcher obtained a signed consent form from parents or guardians as the participants of the study are below 18.

The semi-structured, online, interview lasting for 5 to 10 minutes was conducted. The interviewees were given the choice to answer either in their native language or English to avoid language barriers.

2.3 Data Analysis and Findings

To analyze interview transcripts on participants' views, opinions, knowledge, experiences, or values thematic analysis was used. Recorded data were transcribed and analyzed through the identification of themes. The significant meanings were then grouped into common themes under two broad sections:

1) Benefits of e-learning

2) Challenges of e-learning

3. Benefits of e-learning

3.1 Acquisition of knowledge and skills

E-learning helped in acquiring knowledge and skills such as communication and technology. Several participants shared the benefits of having access to the latest updates and unlimited information which enhanced their knowledge. In line with this, remarked that they obtained a multitude of new ideas and information while using e-learning platforms. For instance, BBS lessons provided new ideas and knowledge as teachers from different parts of the country presented the lesson. (S5, S6 & S8)

Videos lessons were very interesting because of the animations. It gave lots of information from YouTube without facing any problems. (S19&S20)

Besides enjoying listening and watching video lessons, participants acknowledged the use of new words and the language. This in turn improved their vocabulary competency and enhanced their speaking. Participants conveyed that;

YouTube videos helped in pronouncing the words correctly and also improved vocabulary and the use of words in a different context. (S9&S12)

E-learning had brought a positive change in students' ICT skills. They realized learning could be fun with e-learning platforms in place to guide them through. Improvement in ICT skills was visible as they uploaded their assignment and prepared their videos which not only motivated them but also boosted their confidence level in utilizing varied e-learning platforms. As expressed ;

Initially, we had no clue about downloading the information uploaded by teachers. As time went on it got easier. (S1& S8)

Enhanced confidence and enjoyed using Google classroom and Edpuzzle after the orientation and got opportunities to explore different applications. (S1, S7, S8&S10).

As e-learning protected anonymity, students tried out new things through trial-and-error methods, to see if a different strategy helps them to learn more effectively without embarrassment. Participants stated that;

Online classes provided opportunities to explore and operate e-learning platforms without any hesitation. (S4&S10)

It is evident from the findings that the structure of e-learning expanded the students' use of technology.

3.2 Ability to Work Independently

The study saw some noticeable improvement in students' ability to work independently, particularly concerning the operation of e-learning platforms, collection of information, and answering questions through online applications. For instance;

It is a more self-guided form of learning as everyone had to find the answer independently and submit it individually. (S1 & S5)

E-learning allowed to complete work without teachers' and friends' help at their convenience without having to attend a face-to-face class. (S1, S7 ,S8,S13& S15)

The finding revealed that e-learning assisted students in being self-directed learners. They managed to search for answers and other information without relying on others.

3.3 Enhance engagement and self-confidence

Participants revealed that Google meets, Wechat and Telegram facilitated in developing and enhancing their confidence and participation. In the beginning, they were

hesitant to speak English. Gradually their confidence and participation boosted, they were able to participate in video conferences and create their videos and send them through WeChat and Telegram. For instances;

The best thing about e-learning is the protection of identity. Everyone freely shares and discusses in social media groups. (S17&S18)

Video conferences improved confidence levels as identity was protected by putting off camera. It also boosted attention and participation in the discussion. (S5,S6,S7 &S8)

Most of the participants expressed that even those who shied away felt encouraged to comment on the opinions of others as their anonymity was protected. They opined that e-learning platforms provided an opportunity to involve every member of the class. Some of the participant's opinion on synchronous interaction is given below;

More opportunities to participate as messages can be sent in a group chat at the same time by the whole class. (S2,S5,S4& S8)

Get more opportunities to answer and clarify doubts while attending video conferences. (S6&S13)

From the above findings, one could easily surmise that e-learning enabled them to overcome atychiphobia which had restrained their confidence and participation. Before the study, they lacked confidence, due to which they were probably ridiculed by classmates.

3.4 Time and place flexibility

E-learning helped students to study at their convenience. They had the freedom to attend and complete the task, and share and receive knowledge from anywhere at any time.

Discussion and sharing of information are possible from anywhere at any time. It is one of the most convenient lessons to attend, in the washroom, kitchen, or bed while lying, which is not possible in normal classes. (S8,S14, S15,S16&S19)

The live lesson is expressive but more practical. Attention to the lesson is better as it provided answers instantly. (S1, S4, S7&S9)

Before this study, students perceived e-learning as an exhausting, expensive, and difficult method. After attending e-learning lessons for four months, their notion regarding e-learning had a positive change which is evident from the above statements.

4. Challenges of e-learning

The experiences of COVID-19 stumbled upon both boon and bane of E-learning. Despite a horde of benefits, loads of pitfalls were bumped into while implementing it.

4.1 Technology issues

The persistent challenge noted was unreliable internet at home. A break in internet connectivity averted the continuity of the learning. As a result, students missed the lesson and were delayed in completing and submitting their work.

Many times lessons were missed due to the weak internet signal and could not send work on time. (S10, S15&S20)

Sometimes in the middle of the video conference network becomes weak and loses connectivity. The learning gap caused by technological glitches led to frustration and a loss of enthusiasm for learning. (S1, S7 & S8)

4.2 Lack of ICT knowledge

The lack of skills and experience in using ICT was another obstacle encountered. Limited skills to operate e-learning platforms and inability to manage information and files delayed their assignment and some even missed the lessons. For instance;

The operation of smartphone applications was difficult as there were no formal classes on ICT. Sometimes videos and information get deleted. (S3&S20)

Lack of exposure to e-learning classes makes it more difficult to use Google classroom. Sometimes instead of joining, leave the class. (S3, S4 &S6)

The other challenge was the malfunctioning of software and hardware, this suspended the ongoing class which interrupted the learning process and eroded their desire to learn.

4.3 Less conducive home environment

While studying from home there were distractions, especially with family and possibly younger siblings around. This affected their concentration which is essential in understanding the subject content. It was evident from the responses;

The lack of separate study rooms, family activities, and home visitors distracted attention during video conferences. In addition, siblings were a great source of disturbance by shouting and singing. Sometimes they nagged and cried for the phone. (S11&S13)

4.4 Gadget shortage

The shortage of gadgets was another obstacle that made e-learning ineffective. Owing to their poor economic background, not every student owned a personal smartphone for their learning.

Not every family member owned a smartphone, Sharing phones among family members delayed joining the class and assignment submission. (S10 &S13)

4.5 Lack of face-to-face interaction

The absence of face-to-face interaction caused feelings of alienation and detachment as they missed social and physical interaction. This causes boredom and some even tend to lose their attention during virtual classes and the content remains unclear.

E-learning lacks face-to-face interaction. This bars from sharing thoughts and ideas. Lessons are monotonous. (S1, S2,9,17&S19)

The lack of a timely response to students' inquiries was another major area of concern, which gave rise to students' frustration and decline in learning interest.

Had to wait for the teachers' responses as there was no direct interaction. Waiting time for the responses impeded learning interest. (S3, S4 &S19)

Online assessment does not provide clear feedback instead created more confusion as images of assessed work were sent in the chat. (S1, S7S8&S11)

The findings show that learning is optimal in a face-to-face classroom. Reading the material and doing the assignments were not enough for learning to take place.

5. Discussion

The implementation of E-learning in the education system, especially during a crisis had several benefits. The previous studies conducted by (Rasmitadila, et al.2020; Rajab, 2018; Soni, 2020). Upoalkpajor & Upoalkpajor (2020) recognized e-learning as a beneficial tool in providing education to children during the natural disaster, wars, epidemics, and pandemics. Likewise, the overall findings from this study also revealed that e-learning is beneficial and students received desired education regardless of the situation, time, and location.

Many revealed that e-learning is one of the beneficial and advantageous modes of curriculum delivery during crises. (Markova et al., 2017; Nguyen, 2017; Sanders, et al., 2020) e-learning developed and enhanced students' social skills, and technical skills and upgraded their knowledge. Similarly, the current study also discovered that participants gained extra information, and ideas and promoted their knowledge and skill in managing e-learning platforms. The findings of this study also corroborated with prior studies by (Arkorful, & Abaidoo, 2015; Muhisn et al., 2019) as most of the participants opined that the introduction of the e-learning program provided an opportunity to receive an education regardless of time, location and situation.

E-learning boosted participation as it protected anonymity, even those who shied away felt encouraged to share and discuss. This finding corresponded to the studies carried out by (Hubalovsky et al., 2019). Bhutanese youths are exposed to technologies like any other pupil in the world, and the number of internet users in Bhutan has increased (Kinley et al.,2013; Anshari et al., 2017) stated that advanced mobile phones provided a favourable, extensive, and friendly learning environment. Therefore, it can be concluded that a smartphone is an effective and convenient device for e-learning as Bhutanese youths are exposed to smartphones and possess skills. The findings divulged that video conferences and video lessons were more effective as they could clarify their doubts live while attending the video conference and replay the videos till they understand the content clearly. The result was consistent with those from the previous findings by(Beege et al., 2017)who reported that students performed better and also communicated better when taught through video conferences and YouTube videos.

However, the findings of the current study discovered that students encountered problems in handling smartphone applications and e-learning platforms. The limited ICT skills and technical issues were the major cause of the complications. For instance, they could not upload files and also join the video conference. The finding confirmed the prior studies conducted by (Dhawan ,2020).In their study, it was seen that most of the students missed classes and were delayed in completing and submitting their tasks. This could be the result of technical issues such as unreliable internet and power supply. The Ministry of Education launched an Educational TV program and social media platforms to help children learn from home (MoE, 2020). Unfortunately, to avail of education through these platforms required hardware and software applications. In addition, these platforms are associated with too many technical obstacles. The study confirmed the findings of (Rasmitadila, et al., 2020; MoE, 2020) who reported that lack of money and technical issues were the significant obstacles encountered while studying from home.

The major problems highlighted in this study were unreliable internet and data costs. The finding aligned with the studies conducted by (Dhawan, 2020). The study discovered that unreliable networks and costs incurred deprived students of learning and also lowered their learning interest. Nonetheless, appropriate tools and reliable internet connectivity along with cost-effective internet data would boost students' learning interest and participation (Agarwal&Kaushik,2020). The other challenges included distractions from family members, lack of separate study rooms, inability to manage phone applications, and insufficient gadgets. As indicated by (Rasmitadila, et al., 2020) students' inability to attend the e-learning lesson and late submission of their assignment was not only due to an unfavourable home environment but also because of their limited devices and ICT knowledge and skills. Students are confronted with lots of difficulties while attending e-learning yet, the study discovered that the advantageous home environment and parents' guidance could make e-learning more effective. This finding resonated with (Rasmitadila, et al., 2020) who alluded that an unfavourable home learning environment caused distractions that affected learners' concentration and their understanding of the content.

Finally, the study discovered that majority of the participants were confident in using smartphones and acquired skills and experiences in handling smartphone applications. This finding was supported by (Al-Emran et al., 2016), who reported that in this twenty-first-century technology world, the use of mobile technology is increasing across the globe.

6. Conclusion

This study assessed the effects of e-learning in teaching sixth-grade Bhutanese students during the pandemic. The data gathered through semi-structured interviews revealed that e-learning provided an education that safeguarded students' and teachers' health amid the COVID-19 pandemic. The Youtube videos, pictures, sound, and live video conferences made learning more internalized, which affected students' creativity positively.

The outbreak of COVID-19 is not the last crisis, any disaster can occur in the future. Thus, in light of the findings and discussions from this study, the researcher would like to suggest teachers and the Ministry of Education of Bhutan design appropriate and effective content arrangements with an effective delivery system. To achieve better learning outcomes, it is crucial to provide digital literacy training to teachers and students.

6.1 Limitations of the study

The present study employed one group. It had no control group to compare the findings. Moreover, the number of participants in the study is rather considered to be small scale. The study also did not explore Social Studies teachers' opinions toward the use of e-learning in teaching and learning Social Studies.

6.2 Recommendation for Further Research

It would be rather stimulating to have a control group to further confirm the results of the present study. Given the obvious result of the study, e-learning being beneficial for upper primary learners', studies can be conducted with a population at different levels with larger numbers. Additionally, it would be judicious if other subject teachers lent their opinions on the use of e-learning as an intervention.

Conflict of Interest

The authors declare that they have no conflicts of interest to this work.

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