Teacher's Prospective on Effectiveness of Mobile Teaching during the COVID-19 Pandemic for the Secondary Classes of Norbuling CS, Bhutan

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ABSTRACT

Mobile teaching in general understood as to reach the un-reach and make the learning possible using different methods within short period of time. Mobile teaching is about planning and executing learning through mobile devices. When the country was hit by the first COVID 19, case in 6th March 2020 the education institution went under closure strictly instructed teachers to follow mobile teaching. As it was the new practices, many teachers and students took time to adapt to the new situation at first but as time went by, they slowly took a satisfactory turn to adjust to the mobile teaching with great difficulties. But still it is not proven at what level the teachers and students are comfortable with the mobile teaching. The study was carried out on 42 teachers currently teaching secondary classes (I-VIII) using online mode to find out the effectiveness of mobile teaching. Finding reveals that the use of mobile teaching in learning associate with great achievement during the school closure though contact teaching was found to be much effective in students learning. The finding also shows large number of female teachers (about 90 percent) are comfortable with mobile teaching and only few male teachers are having difficulties in using the new platform of teaching.

Keywords- COVID-19, mobile teaching, online mode, Bhutan.

I. INTRODUCTION

Due to COVID-19 pandemic situation, schools and institutes were closed down forcing children and teachers to go for Google class and mobile teaching, which was very much difficult for the Bhutanese classes. In the Kingdom of Bhutan, teachers and children were compelled to undertake mobile teaching and learning despite little trained on using technologies by the experts who don't have experiences in practical field but mastered in using software due to global pandemic of COVID 19. Many problems were encountered while carrying out the practical teaching and usage of the technologies was not a piece cake for the teachers of Bhutan. The Only two-network provider **Bhutan Telecom** and **Tashi-Cell** charges low bill for the use of broadband internet connection making all children available and affordable the internet facilities for the conduct of online classes. These led to conduct of the study to find out the effectiveness of the mobile teaching in primary and secondary classes.

Developing technologies in the field of ICT have brought major changes in the teaching and learning procedures (Pavlik, 2015). Around the globe, usage of mobile phones has become one of these technologies that can't be left behind and it has become a part and parcel of the life. It has led to an excessive use that supports in exploring the world benefiting the learners in the field of education. It is found out that the studies are being badly affected from this tide of change (Stockwell, 2012). According to Kukulaska-Hulme & Traxler (2005) mobile learning face more challenges then the regular contact teaching and even the practical and personal opportunities were limited. But children become more capable in using software and hardware that makes learning more capable and convenient in the field of technologies.

These days we are going to see that tablet devices and mobile apps are progressively being utilized in education to boost learning prospects (Morris et al. 2012) which they're increasingly being employed within the sphere of teaching learning (Welsh and France 2012). Now daily we are able to also see that plenty of scholars owe personal smart phone or tablet phones and these devices are often used formally or informally within the classes for learning. These usages improve digital literacy after we engage more and more in students learning. The conventional methods of teaching and learning are being improved to the greater extend and learning are made more interesting through usage of digital methods.

II. LITERATURE REVIEW

Malladi and Agrawal (2002), mobile technologies encompass two aspects: mobility and computing. They claimed that mobile computing denotes users' access to network resources without limitation of your time and placement. Wireless means transmission of any kind of data-text, voice message, video calling or image transfer, which is conducted through radio waves, instead of using cables connections. Therefore, internet technology is divined as wireless technology that uses oftenest to facilitate transmission of text data, voice, video, or multimedia services to mobile devices with freedom of your time and placement limitation.

Leung & Chan (2003) online teaching using mobile phone are becomes popular in many of the society and many people tend to afford the cost in the demand of purchasing smart phones and internet usage which is stretched to teaching and learning purposes due to various reason in the country. One recent significant change occurred is in the areas of teaching and learning environment, which have the demand of mobile and internet usage. The change compelled our education system to adapt to mobile learning. To keep everyone update with the constant change we need to constantly move with the ongoing change focusing on improving skills in usage of   mobile learning program.

Rismark, Solvberg, Stromme and Hokstad (2007), the liberty of location and time is associated with the notion of happening at anytime and anywhere access that embodies the two main features of mobile technologies and reach ability of the network found that affordance of continuous access to teaching learning through usage of mobile phones may represent new learning chances in education system.

According to **Traxler (2007)** the descriptions and definitions of mobile learning or the mobile assisted language learning (MALL) is a methodology to different methods of learning that enhance anytime and anywhere learning through the use of smart phones, PDAs, tablet PCs, laptop computers, and personal media players. Without those smart devices and the network facilities the teaching learning will not take place and the only alternative is face to face learning in the classroom.

Hahn (2008) mobile learning or service in mobile devices can access network information anytime, anywhere and with any people who owe smart phones or laptops. People just need to carry laptops or smart phones anytime, anywhere and can access through public networking either from home, workplace, airport and a library which will make learning easier and faster.

According to **Cook et al., (2008)** people often consider mobile technologies are the same as wireless technologies. Strictly speaking, mobile wireless technologies are different from mobile or wireless technologies simply because not all mobile technologies are wireless nor are all wireless technologies mobile.

Fahad (2009) the biggest advantage of this technology is that it can be used anywhere, anytime and adopt their mobile learning systems with the aim of improving communication and enriching students' learning experiences in their open and distance learning.

Korkmaz (2010) mobile learning is an extremely fast-moving field with numerous devices and applications, which are in a process of rapid change and development. The mobile learning and mobile enhanced learning devices ranges from simple single-purpose devices like audio-players, to multi-purpose high-technology devices such as smart mobile phones and wireless laptops.

Basal et al. (2016) application in mobile such as What Apps, We chat, SMS messages and other computer programs facility in the mobile learning program which allows user to exchange notes, participate in group conservation and calling facilities making effective for vocabulary teaching. However, there are some disadvantages in terms of financial matter, adjustment problems and low quality of networking. But weighing the pro and cons of the mobile usage for online classes the weight age of advantage is more to both the learners and the teachers.

Thomas and Fellowes (2017) the use of mobile or smart devices has ensued in providing a new opening to engage students in active learning procedural during the time of needs. Students and teachers are both happy to use their own devices in teaching and learning without a contact teaching and this platform offer a positive way to boost field-based learning, with the increasing in development of different apps for different methodology such as recording, note-taking, providing instant feedback, as well as face to face interaction through webinar and virtual classes.

III. STATEMENT OF PROBLEM

To find out effectiveness of Mobile Teaching during the COVID -19 Pandemic for the Secondary Classes of Norbuling CS, Bhutan.

IV. DELIMINATION OF PROBLEM

1. Only teachers who are teaching Secondary level through online mode of Norbuling CS, Bhutan have been taken for the present study.
2. The present study has been conducted only on 42 teachers who are currently teaching PP-VII.
3. The present study is delimited to the teacher's teaching online in secondary classes.
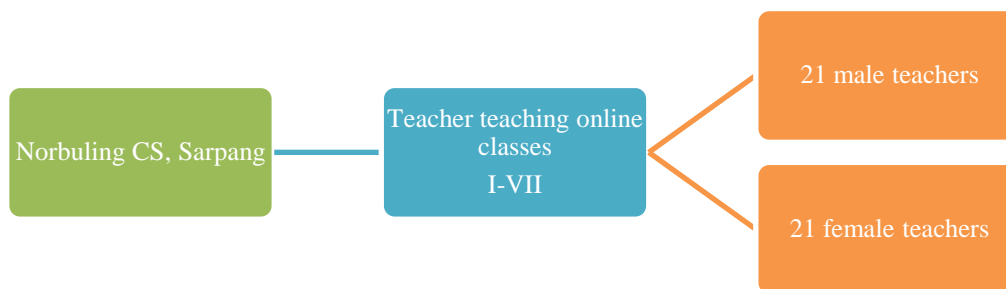
V. OBJECTIVE

To find out the Teacher's Prospective on Effectiveness of Mobile Teaching during the COVID -19 Pandemic for the Secondary Classes.

VI. METHODOLOGY

In this study, the data collection was collected only from single school and Survey method has been adopted to find out the exact evidence about the present situations of online teaching and its impact.

VII. SAMPLE

To carry out the study on the above topic the sample of 42 teachers (equal numbers of male and female) teaching secondary classes from I-VII of Norbuling CS, Sarpang District of Bhutan were collected. Stratified random sampling technique was used to select the sample from whole population. The descriptive inter relationship study was carried out.

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Norbuling CS, Sarpang ─── Teacher teaching online classes I-VII ─── 21 male teachers
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VIII. QUESTIONNAIRES

Each teacher was asked to complete 25 sets of questionnaire through Google forms and used 5 points Likert Scale. The questions were designed to ask the teachers about opinions on using smart phone technology in teaching; how the teacher judged their opinion on the effectiveness conduct of online classes through different social platform. Even there are few questions, which ask them about the advantages of conducting online classes.

IX. ANALYSIS AND INTERPRETATION OF DATA

In all cases, data were tested for normality and where appropriate parametric tests were performed. All analyses were carried out using PASW Statistics 18 SOFT WARE. To compare the differences between male and female teachers, paired t-tests, mean and SD were used.

To check the effectiveness of mobile teaching the score of female and male teachers were tabulated separately to find out the mean and standard deviation using SPSS data software. Then t-test for calculating the significance of difference between means was applied to find out differences existing in the effectiveness for males and females.

Table 1: Mean score for different categories in dimension.

Total Score Category		Mean	N	Std. Deviation
Dimension	High	1.00	2	.000
	Above Average	1.60	5	.548
	Average	1.41	22	.503
	Below Average	1.80	10	.422
	Low	1.33	3	.577
	Total	1.50	42	.506

The table 1 depicts that out of 42 teachers of secondary school who are teaching online classes 22 teachers (mean-1.141, SD-.503) shows average commitment to the online teaching. The data also reveal that 5 teachers (mean-1.60, SD-.548) shows the above average and only 2 teachers (mean-1.00, SD-.00) show extremely high, below average 10 teachers (mean-1.80, SD-.422) and low by 3 teachers (mean-1.33, SD-.577) in attitude towards mobile teaching. It is an indication that the maximum teachers (29) have very positive interest towards the mobile teaching and their learners. Only 13 teachers have unsatisfactory interest towards the teaching through online mode. Thus, we can understand that maximum teachers do really support online teaching and can adjust easily with the change of technology but the few teachers who are less supporting the teaching through online mode can bring on the same boat with the change of time. They will take time but it is pretty sure that they will do support the online teaching and find it much easier with the passage of time

Table2: Indicating the mean, standard deviation and t- value for the measurement of difference in teacher's prospective on effectiveness on mobile teaching.

	Gender	N	Mean	SD	t-Value	Result
Total Score Category	Males	21	2.62	1.161	1.195	Significant at 0.05
	Females	21	2.71	.717		

The table 2 shows the difference between means of males and females which was calculated by using t-test and t- value comes out to be 1.195 which is greater than the tabulated value at 0.05 (level of significance). Therefore, it can be concluded that there is significant difference in the effectiveness in mobile teaching for teachers who are teaching different classes during the school lockdown. Also, it is clear from the table above that mean score of female teachers teaching online is higher (2.71) than the mean score of males which is (2.62). This means that female teachers are more adjustable and support online mobile teaching in comparison to male teachers. In table 1 there are few teachers who are not very much inclined towards the online mode of teaching and table 2 shows that those teachers are male who have difficulties in teaching using online mode.

X. CONCLUSION

The mobile technologies considered as one of the effective tool in improving communication and learning at this situation when the whole world is grieving with the fatality of COVID 19. In the under developing country like Bhutan, online teaching using mobile technologies are not yet popular due to the cost involved in owning smart phones and laptops, and using high internet consumptions. But with the subsidized rate from the two mobile operators at this time mobile phones do hold tremendous potential which can be strategically used to support and improve student learning despite the closure of the regular classes.

Mobile learning can't compare with traditional classroom-based learning as it totally cuts out from people getting closer in one hall and interact with different purposes. But we must understand that mobile learning doesn't substitute class room based learning in any ways. The major differences between mobile learning and classroom based learning is children developing close contact and know each other in contact learning whereas in mobile learning there is a shift in learning environment and more time can be spent in processing the information. Also monitoring, asking questions and receiving guidance can be possible only in face-to-face setting, and it can help the introverted people. Besides, less content coverage, absence in usage of different strategy, and challenges to bring transformational change in the children are some of the issues in online mode. But we are with the new generation of learners where they all need room to use those empowering tools to explore and navigate by themselves to meet the demand of our knowledge society. However, mobile teaching also do provide enough rooms for the teachers to interact with individual students and parents, and give instant feedback which is further motivating student to participate in online learning. The parents and teachers can ensure the academic achievement of the learners and set the target for the next level like face-to-face teaching.

Through the conduct of this research, we can now understand that the pre-ideas of using teaching apps or mobile apps still known by today's generation because we can see that larger number of teachers comfortably working with the online line classrooms. The only thing our teacher need is the platform where they can showcase their skills in using modern ICT technologies. Despites, there are few groups of teachers most probably the older generation who can't adjust to the new changes and they prefer only face-to-face interaction. But the interesting thing is there is possibility of coming them on track with the support from colleagues and students.

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