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COMPARATIVE STUDY OF GOVERNMENT AND PRIVATE PRIMARY SCHOOL TEACHERS OF VARANASI DISTRICT IN RELATION TO THEIR TEACHING METHODS AND CHALLENGES FACED BY TEACHERS DURING COVID-19

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Abstract

COVID-19 was the monstrous crisis to hit globally with profound impact on the development landscape (Human Developments Reports, 2020). Due to COVID-19 pandemic teaching–learning process had been disrupted and witnessed procedural transformation. This had witnessed closure of schools, colleges, universities and professional institutes in all the states ensuring the continuity of education through various available digital platforms. But in developing countries like India with low per capita income and high-income inequality, affordability of online educational system with availability of smartphone, desktop/laptop, telecom infrastructure and internet connectivity seemed to be distant dream for many. This study tried to understand the teaching methods adopted by government and private primary school teachers (GPST and PPST) of Varanasi district during Covid-19. Further, this study extends to know about the challenges faced by government and private primary teachers while teaching at the time of Covid-19. 100 samples were taken into consideration (50 GPST and 50 PPST). Two Self-made tool was used as Primary Level Teaching Method (PLTM) and an opinionnaire by the name Opinionnaire for Challenges Faced by Primary Teachers (OCFPT). It was found that maximum % of GPST used Whatsapp and maximum % of PPST used Zoom app. Maximum % of GPST faced the technological skill and technological access challenges and maximum % of PPST faced technological access and environment (work from home) challenges.

Keywords: Government Primary School Teachers, Private Primary School Teachers, Teaching Methods During Covid-19, Challenges Faced by Teachers.

Introduction

India as developing nation had experienced grim challenges economically with spike in the number of positive corona cases and numbered at concerning position in the world. The World Bank had drafted its warning in India Development Update (IDU) that the country was at ‘risk of losing its hard-won gains against poverty’. Further, it stated that many households are ‘likely to slip back into poverty due to income and job losses triggered by COVID-19’ (Vishnoi, 2020). During that crisis, though the Government had initiated to unlock phase-wise the economic activities intending that the daily wage earners are not left behind for starvation and exploitation. However, still the government was not confident to resume to normal classroom lectures in any educational institution. The teachers and students were confined at home with no scope for direct interaction between them other than virtual engagements. Unfortunately, digital accessibility was not available to all students’ communities resulting in digital deprivation or digital divide. Further as per the published available data on Wikipedia, in 2019, 54.29 per cent of India’s population had internet access which was lower compared to other developing countries like China 63.33 per cent, Indonesia 64.80 per cent, Brazil 71.86 per cent, Nigeria 66.44 per cent, etc.

COVID-19 was the monstrous crisis to hit globally with profound impact on the development landscape (Human Developments Reports, 2020). Due to COVID-19 pandemic teaching–learning process had been disrupted and witnessed procedural transformation. This had witnessed closure of schools, colleges, universities and professional institutes in all the states ensuring the continuity of education through various available digital platforms. But in developing countries like India with low per capita income and high-income inequality, affordability of online educational system with availability of smartphone, desktop/laptop, telecom infrastructure and internet connectivity seemed to be distant dream for many. The student communities witnessed immense challenges from the education accessibility parameter. Human touch regarded as significant dimension in developing children’s intellect and learning thoughts. The budding students generally met difficulty in expressing and sharing their problems or issues with their parents rather finding ease with their friends and siblings. With limiting movements to maintain social distancing, virtual engagement had been saviour in critical hour but psychologically unable to withstand the fulfilment of their requirements. Thus, the students were undergone high stress, monotony and loneliness as an outcome of such imposed restrictions. Due to prolonged closure of educational institutions, online teaching–learning had been the new normal trend but substantial portion of vulnerable section were debarred due to unavailability of proper infrastructure, paucity of funds, technical glitches and ignorance. Unlike the schools and colleges in villages, online teaching in metro or urban locations had geared up. Due to job loss and reduction in family income during the lockdown phase (Maity et al., 2020b); people were sceptical



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to spend on smartphones or high-speed internet for attending uninterrupted online classes. Further, innumerable instances of children to be out of school as their parents were sending them to work for contributing towards family income were vivid.

The stringent lockdown confined the kids at home during their normal classroom hours and the various aspects that influence e-learning for these tender age school goers had not been attempted. The new enrolled primary students who recently stepped into schools for basic foundational learning were hit hard in an unprecedented manner.

Need of the study

Large numbers of research are available on digital teaching-learning mode in higher educational system in developed and developing countries but, however, studies on the impact of prolonged lockdown resulting in adherence to digital modes in primary level educational system remains unexplored further a comparative study between government and private schools to understand the teaching methods during lockdown also remained unexplored. This study extends the knowledge to understand the teaching methods adopted by government and private primary school teachers of Varanasi district during Covid-19. Further, this study extends to know about the challenges faced by government and private primary teachers while teaching at the time of Covid-19.

Research Questions

- 1) What kinds of teaching methods (apps used) were adapted by the government and private primary school teachers of Varanasi district during Covid-19?
- 2) What kind of challenges was faced by government and private primary school teachers of Varanasi district while teaching during Covid-19?

Operational Definitions of the terms used

Government school teachers: In this study, Government school teachers refers to the teachers teaching at primary level at government schools.

Private school teachers: In this study, Private school teachers refers to the teachers teaching at primary level at private schools.

Teaching methods: In this study, teaching methods refers to the apps used to deliver subject matter by the government and private primary school teachers to teach during Covid-19.

Challenges: In this study, challenges refer to the kind of challenges faced by the government and private primary school teachers to teach during Covid-19.

Objectives

- 1) To know the teaching methods (apps used) adapted by government and private primary school teachers of Varanasi district while teaching during Covid-19.
- 2) To know the challenges faced by government and private primary school teachers of Varanasi district while teaching during Covid-19.

Method of the Study: Descriptive survey method was adapted in the present study.

Population: Government and Private Primary school teachers of Varanasi comprised the population of the study.

Sample and Sampling technique: Sampling was done at two stages firstly, selection of government and private schools and secondly, selection of primary teachers from the selected schools. Simple random sampling method was used at both the stages. 5 government schools and 5 private schools were selected and 10 primary school teachers were selected from each school. Thus, total 100 samples were taken into consideration (50 government and 50 private). Detail of the sample selection was as:

Table 1: Description of the sample selection

	Schools selected	Teachers/School	Total	Total sample
Government	5	10	50	100
Private	5	10	50	

Tool used: Two Self-made tool was used in the present study firstly to assess the digital methods used by the government and private primary school teachers during Covid-19 by the name Primary Level Teaching Method (PLTM) and secondly an opinionnaire by the name Opinionnaire for Challenges Faced by Primary Teachers (OCFPT) was constructed to know the challenges faced by them while teaching during Covid-19. Detail of the tools used is given below:



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Table 2: Description of the tools used

S.no	Name of the tool	Short form	Description
1	Primary Level Teaching Method	PLTM	To assess the digital methods used by the government and private primary school teachers during Covid-19
2	Opinionnaire for Challenges Faced by Primary Teachers	OCFPT	To know the challenges faced by them while teaching during Covid-19

Statistical analysis: Percentage-wise score was calculated to analyse the data.

Findings

In this study ten methods of teaching were taken into consideration as Whatsapp; Google classroom; Zoom; Google meet; ClassDojo; Read along app; Diksha; Radio, Community radio and Podcasts; E-textbooks and SWAYAM Prabha channel.

Objective-wise findings were as:

Objective 1: To know the teaching methods adapted by government and private primary school teachers of Varanasi district while teaching during Covid-19.

Table 3: Percentage wise scores of private apps used by government and private primary school teachers

Type of school teacher	Whatsapp		Zoom		Google classroom		Google meet		ClassDojo	
	N	%	N	%	N	%	N	%	N	%
Government (50)	28	56	8	16	3	5	4	8	0	0
Private (50)	3	6	21	42	13	26	12	24	1	2

1.a (i) 56% of GPST used Whatsapp, 16% used Zoom. 5% used Google classroom, 8% used Google meet and none of the teachers used ClassDojo app.

1.a (ii) 6% of PPST used Whatsapp, 42% used Zoom. 26% used Google classroom, 24% used Google meet and 2% of the teachers used ClassDojo app.

1.a (iii) Whatsapp was used by GPST (56%) with an immense gap between usages among PPST (6%); Zoom was used more by PPST (42%) as compared to GPST (16%); Google classroom was used more by PPST (26%) as compared to GPST (5%); Google meet was used more by PPST (12%) as compared to GPST (4%) whereas, none of the GPST used ClassDojo and only 2% of the PPST used ClassDojo app.

1.a (iv) Thus it can be said that, maximum % of GPST used Whatsapp and maximum % of PPST used Zoom app.

Table 4: Percentage wise scores of Government initiatives used by government and private primary school teachers

Type of school teacher	Read along app		Diksha		Radio & Podcasts		E-textbooks		SWAYAM	
	N	%	N	%	N	%	N	%	N	%
Government (50)	10	20	15	30	5	10	3	6	17	34
Private (50)	7	14	9	18	0	0	26	52	6	12

1.b (i) 20% of the GPST used read along app, 30% used Diksha, 10% used Radio & Podcasts, 6 % used E-textbooks and 34% used SWAYAM among the government initiatives for online teaching.

1.b (ii) 14% of the PPST used read along app, 18% used Diksha, 0% used Radio & Podcasts, 52 % used E-textbooks and 12% used SWAYAM among the government initiatives for online teaching.

1.b (iii) Read along app was used more by the GPST (20%) as compared to PPST (14%), Diksha app was used by GPST (30%) more than the PPST (18%), Radio & Podcast was used by GPST (10%) whereas none of the PPST reported to use Radio & Podcast way of teaching, E-textbooks was used more by the PPST (52%) than the GPST, SWAYAM was used more by the GPST (34%) as compared to PPST (12%).

1.b (iv) Thus, it can be said that, SWAYAM and Diksha was used by maximum % of government primary school teachers among all the five government initiatives. E-textbooks that were available through government initiatives were used by maximum % of private primary school teachers.



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Objective 2: To know the challenges faced by government and private primary school teachers of Varanasi district while teaching during Covid-19.

To know about the challenges faced by government and private primary school teachers of Varanasi district while teaching during Covid-19 the percentage wise scores of the five most prominent responses were calculated which is as follows:

S.no.	Challenges	Government teachers		Private teachers	
		N	%	N	%
1	Technological skill	16	32	10	20
2	Technological access	17	34	11	22
3	Course design	4	8	8	16
4	Environment	5	10	12	24
5	Time management	8	16	9	18

2 (a) 32% of the GPST reported to face the technological skill challenge and 20% of the PPST reported to face the technological access challenge.

2 (b) 34% of the GPST reported to face the technological access challenge and 22% of the PPST reported to face the technological access challenges.

2 (c) 8% of the GPST reported to face the course design challenge and 16 % of the PPST reported to face the course design challenge.

2 (d) 10% of the GPST reported to face the environment challenge and 24% of the PPST reported to face the environment challenge.

2 (e) 16% of the GPST reported to face the time management challenge and 18% of the PPST reported to face the time management challenges.

2 (f) Thus it can be said that, maximum % of GPST faced the technological skill and technological access challenges and maximum % of PPST faced technological access and environment (work from home) challenges.

Result and Discussion

The most commonly used platform by government and PPST were Whatsapp, Zoom & Google meet and the least used was ClassDojo (none of the government primary school teacher reported to use and only 2% of private primary school teacher reported to use). Google classroom was used by private primary school teacher (26%). Google classroom is an educational app and well-known app among students which consists of Google Drive, Gmail, Google Calendar plus other apps. Google Classroom is intended for students and teachers in K-12 as well as higher education marketplaces. Apart from being quite simple to use, Google Classroom helps to encourage connections between the teachers and the students. It is possible for the teachers to establish a class and also list the education apps within a few clicks only. Students can be added by name or they can even be sent a code for joining. Students will be able to take part in discussion forums and they can also message their teachers either by means of a group chat or private chat.

Zoom is basically a robust video conferencing platform enabling to conduct meetings with numerous participants. Instructors will be able to share lesson plans, provide guidance, exchange files with the students, and also interact directly with individuals by means of a chat using this application. At the time of ongoing coronavirus pandemic this was extremely comfortable. Recently, the 40-minute time limitation for calls on the free plan of this platform has been removed by Zoom. At present, it is available on the iPad, iPhone, as well as Android devices. Though ClassDojo was least preferred by both the groups but it serves as a hub of activity and resources. Teachers can create and assign multimedia activities, including photos, videos, voice recordings, drawings, and journal entries and leave feedback for students via voice notes and social media-style likes and comments. Teachers are also able to send individual messages to families and class-wide announcements. They can also schedule reminders for assignment due dates. Google meet was used more by PPST (24%) as compared to government primary school teachers. GSuite with Google Meet, can help to transit from in-person classes to online classes. Google Meet is an amazing resource one can use for online teaching. If one is already using Google classroom, using Google Meet for online teaching should be pretty seamless.

Among the 5 Government of India initiatives Diksha was preferred by 30% of GPST and 18% by PPST. DIKSHA (Digital Infrastructure for Knowledge Sharing). DIKSHA is the national platform for school education available for all states and the central government for grades 1 to 12. It can be accessed through a web-portal and mobile application. It provides access to a large number of curriculums linked e-content through several use cases and solutions such as QR coded Energized Textbooks (ETBs), courses for teachers, quizzes and others. It is the 'one nation; one digital platform' for school education. In April, 2020 VidyaDaan was launched as a national content contribution program that leverages the DIKSHA platform and tools to seek and allow contribution/donation of e-learning resources for school education by educational bodies, private bodies, and individual experts.



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34% of GPST used SWAYAM and 12% of PPST used SWAYAM as a mode of teaching. SWAYAM online course is available and uploaded on SWAYAM portal; around 92 courses have started and 1.5 crore students are enrolled. Students and teachers can access all the course modules – text, videos and assessment questions etc. through SWAYAM.

52% of PPST used E-textbooks and only 6% of GPST used E-textbooks. The e-textbooks can be accessed using e-Pathshala web portal and mobile app (Android, iOS, Windows). More than 600 digital books including 377 e-textbooks (grades 1 to 12) and 3,500 pieces of audio and video content of NCERT are available in the public domain in various languages (Hindi, English, Sanskrit and Urdu).

Furthermore, the findings of the study indicate that technological skill and technological access were the most prominent challenges faced by both government and PPST. The ability to integrate technology, content, and pedagogy based on knowledge and skills contributes to an effective lesson delivery. Therefore, these knowledge and skills are crucial for teachers in this era. According to Koehler, Mishra and Cain (2013), Technology Pedagogy Knowledge (TPK) refers to a teacher’s expertise in altering the T&L process in correspondence with a particular technology that is newly introduced, whereas Technology Content Knowledge (TCK) is the understanding of specific techniques that complement the teaching of the subject matter. However, challenges arose when teachers were unable to provide learning platforms with appropriate lesson designs and plans. It was a struggle, especially for novice teachers, to switch from T&L sessions in physical classrooms to online T&L. Even though most people own internet-connected devices such as smartphones, it cannot be assumed that they are technology-literate, let alone being able to teach using technology. The data released by Department of Statistics Malaysia (2020) shows that 97.1% of internet users in Malaysia acknowledge social interactions as their main internet activity, 84.7% download images, videos, music and games online and 83.5% use the internet to find information related to goods and services (Department of Statistics Malaysia, 2020). In summary, this report reveals that the internet is seldom used for academic purposes.

The access to technology appears to be the most reported challenge that hinders the smooth flow of online T&L sessions. Limited internet accesses due to unstable internet connection, unstable internet speed, and insufficient data for those who are using mobile data are among the challenges that arose under this theme. It is of utmost importance to look into this particular issue as online teaching and learning requires frequent synchronised and asynchronised communication (Akbulut, Şahin, & Esen, 2020; Awang et al., 2018). An unstable internet connection will result in a less effective lesson delivery. In the other hand, unreliable devices or gadgets is another obstacle in online T&L even if the internet connection is stable (Sadeghi, 2019). Quality technology infrastructure should be prioritized as recommended by UNESCO and OECD to ensure education continuation using the online learning platforms (UNESCO, 2020; Reimers & Schleicher, 2020). However, this issue has not been resolved satisfactorily since the utilisation of VLE-Frog for learning management system (Ramli & Saleh, 2019; Awang et al., 2018).

Zhang et al., (2020); and Akbulut et al. (2020) reported the access to technology as the most prevalent challenge that arose in their respective study. Zhang et al. (2020) highlighted that online learning systems often become overwhelmed and crash due to large volumes of users. Besides, places with challenging geographical structures, such as mountainous and rural localities, usually have little to no access to technology. As asserted by Akbulut et al. (2020) the fact that not everyone is privileged to have access to either internet or computers makes online education unfair. Zhang et al. (2020) discovered that technology infrastructure was the main challenge in the implementation of ‘Suspending Class without Stopping Learning’. Internet availability and stability, as well as internet-connected devices such as laptops and smartphones are the two most crucial elements in online T&L. Thus, without proper internet and devices, the lesson cannot take place. However, it is no surprise that the best technology infrastructure is unaffordable in a time where people are financially challenged due to restriction of movement to contain COVID-19 outbreak (Dhawan, 2020). Many are influenced by salary reduction, and some even lost their jobs (United Nations, 2020). During the crisis, people prioritize spending on the essentials for survival over the other needs (Reimers & Schleicher, 2020). Therefore, in such circumstances, the government and private sectors need to sponsor the access to technology for suburban teachers and students and the under privileged.

In this study it was found that 16% of PPST reported to face the challenge of course design. During the sudden transition into online education, teachers were expected to be able to use the online learning platforms immediately (Zhang et al., 2020). However, teachers reported that they lacked knowledge and skills to convert offline (hardcopy) materials into online (softcopy) materials and share them on online platforms. Having limited experience in online teaching caused a lack of online teaching skills among teachers. Thus, they faced challenges in preparing teaching materials that can cater to students of different levels, creating suitable methods for all students, and preparing synchronous lessons.



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In this study 24% of the PPST reported to face the challenge of environment. As teachers who never attempted to use online platforms in their T&L were required to pick up news skills out of a sudden, many of them spent a lot of time groping in the dark. In fact, even teachers with prior experience in using online learning tools for blended learning opined that the preparation of online lessons was time consuming (Akbulut et al., 2020). This issue arose because teachers were not familiar with the chosen online teaching platforms (Zhang et al., 2020; Zhou, Wu, Zhou, & Li, 2020) and the ways to look up materials that suit the national syllabus. Besides, teaching from home during school and nursery closure added parental burden on some teachers as time management was a big challenge for them.

Conclusion

- Maximum % of government primary school teachers used Whatsapp and maximum % of private primary school teachers used Zoom app.
- Maximum % of government primary school teachers faced the technological skill and technological access challenges and maximum % of private primary school teachers faced technological access and environment (work from home) challenges.

Delimitations

- Only 5 private online app and 5 government initiatives to teach were taken into consideration.
- Study used only teachers' method of teaching and challenges faced by them. Any other stakeholders were not taken into consideration.
- Students were not the part of the study.

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