PERCEPTION OF SCHOOL TEACHERS TOWARDS ONLINE TEACHING DURING COVID PANDEMIC: A STUDY OF HARYANA STATE IN INDIA

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Abstract: The current study aimed to know the perception of Secondary and Senior Secondary school teachers regarding their experiences of online teaching during lockdown 2020-21 due to COVID pandemic in Haryana State. A well structured and self developed questionnaire consisting of 12 items was designed in Google Forms covering different aspects related to online teaching. 223 Government school teachers from 22 districts of Haryana State responded to the questionnaire. The analysis of responses was done through Google Analytics which revealed that 51.1% teachers shared educational material and instructions with students on a daily basis. Further, 'Whatsapp' was the most frequently used mode for sharing educational content. It was also revealed that 'Avsar App' (57.4%) and 'Whatsapp' (57%) were commonly adopted by teachers for assessing the learning-outcomes. The major problems faced by teachers during online teaching were lack of devices on the part of students, issue related to network connectivity, lack of technical skills on teachers' part, increased workload, stress and anxiety due to fear of online teaching. Despite having these problems, 39% respondents perceived that online teaching helped them to improvise upon their technical knowledge and 37.7% teachers found something new and creative in online teaching. It may be concluded that online teaching is a good option for meeting the educational needs of students and can be employed in regular classes along with offline classes. However, the study will also help in providing pathways for better facilities and readiness in shaping the teaching-learning process for any future crisis-like situations.

Keywords- Perception, school teachers, online teaching, COVID pandemic, lockdown 2020-21, Google Forms, Avsar App.

1.0 CONCEPTUAL BACKGROUND

The outbreak of fatal Corona Virus in Wuhan City (China) in December, 2019 forced the whole world to go into complete shutdown. In India, the spread of Covid-19 imposed a nationwide lockdown in March, 2020. As a result, academic pursuit of students suffered a lot. To overcome this breakneck situation, academicians across nation preferred to adopt unconventional methods and shifted the teaching from face-to-face mode to online mode and Haryana (one of the 29 states of India) was no exception to it. Government of Haryana also took immediate measures to ensure continuity of learning of students, studying in government-running 8686 primary, 2423 middle and 1154 high schools spread across 22 districts of Haryana. Chief Minister of Haryana Shri Manohar Lal Khattar introduced a visionary 3S Mantra '**Stay at home, Study at home and School at home**' for facilitating the learning of students at their home. The Department of Education Haryana and State Council of Education Research and Training (SCERT) launched 'Ghar Se Padhao Abhiyan' campaign in which over 50000 teachers connected with 52 lakh students of class 1 to 12th across the state through WhatsApp, SMS and phone calls. Also Haryana was the first state in the country to use DTH service providers and local cable services providers to telecast educational programs on TV for students. This sudden shift of traditional school system to techno based online learning system made teachers to undergo a digital transformation overnight (Bardoloi, Das and Das, 2021). This drastic and abrupt change was very difficult for teachers especially for those who had fear of technology. Despite technological phobia, teachers worked hard for the welfare of their students. Initially, there was not proper planning and training for teachers to deliver lectures, to share study material, to assess students' learning and proper technical arrangements. Later in July 2020, State Council of Education Research and Training (SCERT) started a digital platform 'DIKSHA' to provide subject wise training to government school teachers to cope with the challenges of teaching students virtually. In this context, the need was felt to know the perception of teachers towards online teaching during the period of crisis.

2.0 LITERATURE REVIEW

The Covid-19 pandemic had terrifically affected the whole education system all over the world and led to an unexpected partial or full closure of educational institutions. Various studies have been conducted about online teaching during Covid-19 pandemic. Some of them are taken as background to our study as given below:

Rahayu and Wirza (2020) found in their study that teachers had a positive perception of the usefulness and ease of use of the online system during Covid-19 pandemic. Further, lack of communication, interaction quality between teachers and students, lack of motivation and parents support to students, technological infrastructure and lack of internet availability were major determinants for ineffectiveness of online learning. Respondents found online teaching uncomfortable and inconvenient due to difficulty in use of ICT tools, problem in designing teaching-learning material, and assessment.

Ali (2020) adopted meta-analysis methodology regarding online and remote learning in Higher Education Institutes worldwide. Finding revealed that besides resources; staff readiness, motivation confidence, and student accessibility are important factors in ICT integrated learning.

Sangeeta and Tondon (2020) suggested that performance expectancy and behavioural intention can build positive attitude among school teachers to adopt online teaching. This study indicated that appropriate equipment and institutional training helped faculty members to familiarize with novel technology and its adoption.

In the study of Mohalik and Sahoo (2020) pupil teachers showed e-readiness with digital devices and had financial support for the same. Internet connectivity, inadequate electricity supply, lack of personal space at home, poor interaction with teachers and peer group were major problems faced by them. Feeling of isolation, stress and poor confidence were also encountered by the respondents in online mode.

Mishra et.al. (2020) in their study investigated that respondents were satisfied with online teaching process as they gained more knowledge and optimized their time during lockdown period. Researchers found three major factors namely "better efficiency and connectivity", " better interaction and evaluation", and "efficient coverage of remote area" which captured satisfaction of students towards online teaching mode.

Bordoloi, Das and Das (2020) mentioned that the mobile app were the strongest support service for meeting the learning needs of the students during pandemic situation. Findings revealed that e-SLM were preferred over the printed study material by majority of respondents because of its availability on time and user-friendly nature.

Kamal and Illiyan (2021) found in their study that teachers faced many problems such as difficulty in taking attendance of students, assessment and evaluation of students, poor network connectivity, data pack issue and lack of smart phones on the part of students. But still, online education was perceived positively because of easy and fast method of sharing learning material and fast feedback.

In a study done by Priyadarshani (2021) respondents mentioned that the conventional classroom teaching cannot be replaced by online teaching. The major challenges during online teaching were technological and network issues, lack of proper planning and preparation. It has been suggested that schools and government should provide training and improvement programs periodically to overcome challenges of online teaching.

Review highlighted that lack of internet connectivity and devices are the major issues in the path of online teaching in all the developing countries. Despite of difficulties in dealing with technology in online teaching, teachers still found it as a good option for continuing the teaching- learning process during the pandemic period. Many studies are conducted in the field of perception about online teaching learning in higher education but limited studies are related to school education especially in the context of Haryana state of India. This gap inspired the investigators to take up the present study.

3.0 OBJECTIVE

The basic objective of this study was to know the perception of secondary and senior secondary school teachers about the online teaching during lockdown 2020-21.

4.0 RESEARCH QUESTIONS

The following research questions were framed:

i. How often (many times) were the teachers contacted with students in a week during lock-down?
ii. How many students (in %) were engaged/present in online classes during lock-down?
iii. What were the different modes of communication used by the teachers during lock-down?
iv. How often the educational content/study material was shared by the teacher during lock-down?
v. What were the different modes of sharing educational content/study material and necessary instructions to students during lock-down?
vi. How did the teachers assess/evaluate students' learning/progress during lock-down?
vii. How did the teachers solve educational problems of students during lock-down?
viii. Did the teacher teach any Children with Special Need (CWSN) during lock-down?
ix. What were the different modes through which the teachers taught the CWSN students?

x. How were the responses of students towards online teaching-learning during lock-down as perceived by the teacher?

xi. What were the different problems faced by the teachers during online teaching?

xii. What is the perception of teachers towards online teaching?

5.0 METHODOLOGY

An exploratory research design was considered appropriate for this study and online survey method was used to obtain baseline information from school teachers of Haryana State. A well structured and self developed questionnaire on Google Docs consisting of 12 items was used to collect the data from the target group. The time period for collecting the data was from September 2021 to December 2021. A total of 223 teachers including Trained Graduate Teachers (TGT), Post-Graduate Teachers (PGT), Head Teachers and Principals from all the districts of Haryana i.e. Karnal, Fatehabad, Panipat, Jind, Kaithal, Panchkula, Hisar, Sonipat, Sirsa, Bhiwani, Kurukshetra, Rohtak, Faridabad, Ambala, Jhajjar, Charkhi Dadri, Gurugram, Mahendergarh, Yamuna Nagar and Nuh participated in the study. Statistical measures like frequency count, percentage, and graphical representation were used to analyze the responses through Google Analytics.

6.0 ANALYSIS OF DATA

6.1 Demographic Profile of the respondents

a) **Gender**

Figure 1 shows the total number of male and female respondents participated in the study. There were 109 male and 114 female participants.
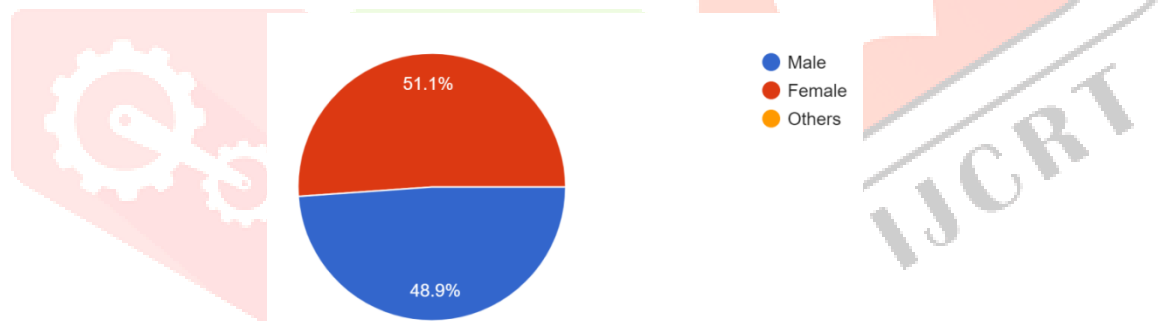

Figure 1: Gender

(b) **Designation**

Table 1 show that there were 9 (4.1%) Principals, 164 (73.5%) Post Graduate Teachers (PGT) and 50 (22.4%) Trained Graduate Teachers (TGT) participated respectively.

Table 1: Designation

Designation	Frequency	Percent
Principal/Head teacher	9	4.1%
PGT	164	73.5%
TGT	50	22.4%

6.2 Findings

Item 1: How often (many times) were you in the contact with students in a week during lock-down?

Figure 2 represents that 83.4% (183) teachers interacted with students 'frequently' during lockdown. Further, 13.9% (25) teachers were 'rarely' in contact with students and 2.7% (3) were 'not at all' in contact with the students during lockdown. Thus, we can say that most of the teachers were regularly interacted with students during lockdown.
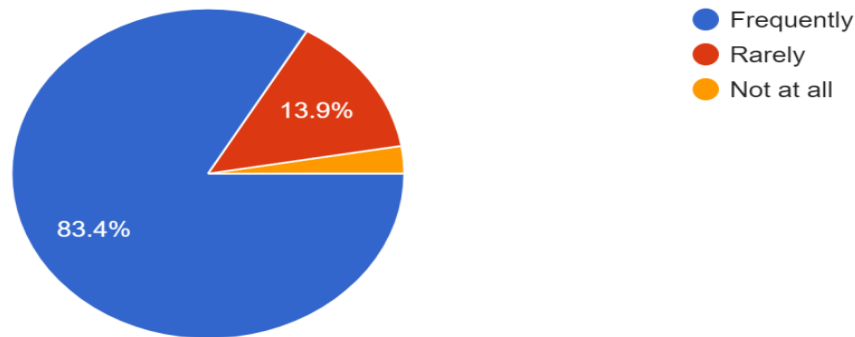

Figure 2: Teachers' contact with students during lockdown

Item 2: Mode of communication/teaching used by you (teacher) during lock-down?

From Figure 3, it can be seen that 'Whatsapp' was most commonly used mode of communication/teaching as 88.8% teachers responded to it. On contrary, E-mail was seldom used (2.7%) as a mode of communication by the teachers. Besides Whatsapp, phone (53.8%), Google meet (38.1%), Zoom app (20.2%) were also used as modes of communication during lockdown.
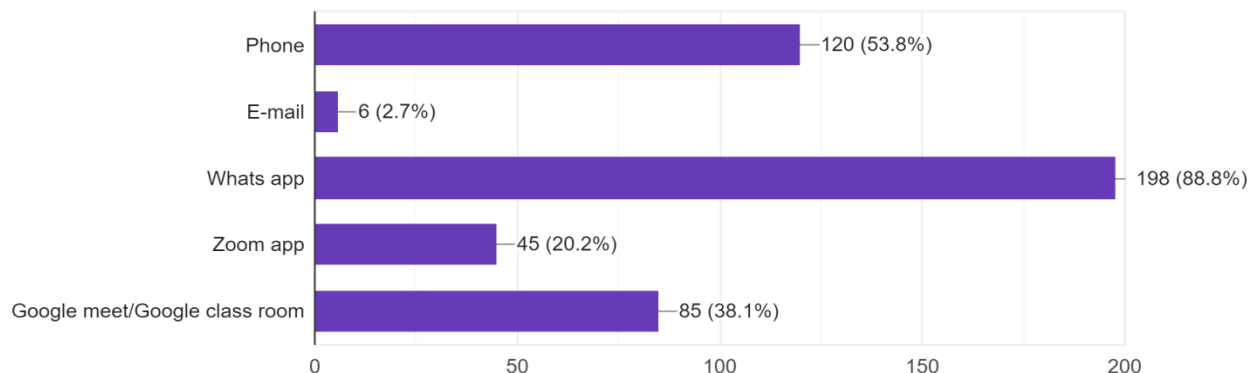

Figure 3: Mode of communication used by teacher

Item 3: How many students (in %) were engaged/present in online classes during lock-down?
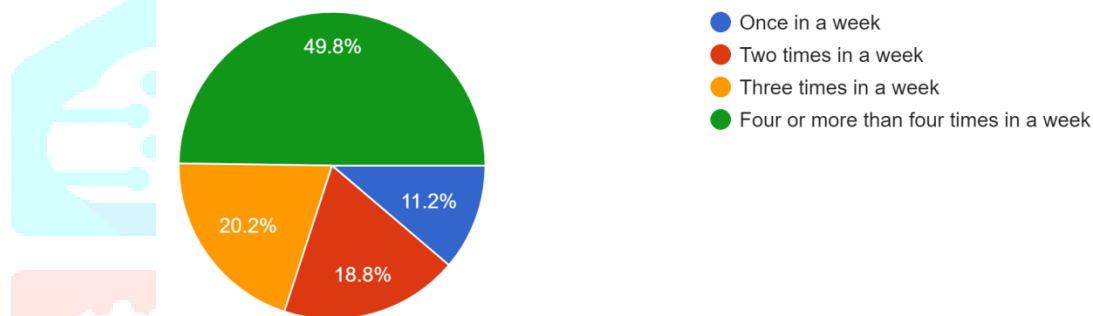
From table 2, it can be seen that 31 respondents indicated that below 15% students attended online classes during lockdown. Further, 36 teachers responded that 16%-30% students were engaged in online classes. Moreover, 20, 60, 36 and 33 respondents replied that 31%-45%, 46%-60%, 61%-75% and 76%-90% students were present in online classes respectively. Only 7 teachers reported above 90% attendance of students in online classes during lockdown.

Table 2: Students present in online classes

Range of students (%)	Frequency	Percent
Below 15	31	13.90
16-30	36	16.14
31-45	20	8.97
46-60	60	26.91
61-75	36	16.14
76-90	33	14.80
Above 90	07	3.14

Item 4: How often (days in week) you were engaged in online teaching during lock-down?

Figure 4 represents that 111 (49.8%) teachers took online classes 'four or more times' in a week during lockdown. Conversely, only 25 (11.2%) teachers were engaged in online teaching 'once in a week'. It was also found that 45 (20.2%) teachers took class 'three times in a week' and 42 (18.8%) teachers were engaged in online teaching 'two times in a week'. It can be concluded that teachers were regularly engaged in online teaching during lock-down.

Figure 4: Teachers engaged in online teaching (days in week)

Item 5: How often you shared educational content/study material with students during lock-down?

In table 3, we can see that 2.7% teachers shared study material once in a week, whereas 7.2% teachers shared educational content 'Two times in a week'. Further, 32 (14.3%) and 55 (24.7%) teachers shared study material 'three times' and 'four or more than four times' in a week respectively. Moreover, 114 (51.1%) teachers shared educational content with students on daily basis. Thus, it can be concluded that most of the teachers shared study material regularly with students.

Table 3: Educational content shared with students in a week

Content shared with students	Frequency	Percentage
Once in a week	6	2.7
Two times in week	16	7.2
Three times in week	32	14.3
Four or more than four times in a week	55	24.7
Daily	114	51.1

Item 6: What were the modes of sharing educational content/study material and necessary instructions to students during lock-down?

Figure 5 indicates that 93.3% (208) teachers used 'Whatsapp' for sharing educational content and instructions to students in response to 'Ghar Se Padhao' campaign launched by Govt. of Haryana during lockdown. In addition, Phone (41.3%) and You-tube (39.9%) were other popular methods used by teachers for sharing study material. Google class room (22%) and Zoom App (15.7%) were also used considerably by teachers for sharing educational content and instructions during lockdown. On the other hand, E-mail was the least used method for sharing educational content and instructions during lockdown.
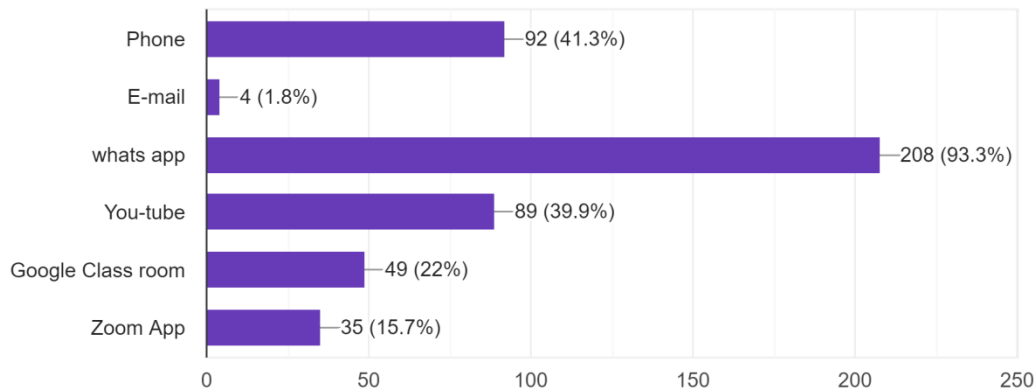

Figure 5: Modes of sharing study material and instructions

Item 7: How did you assess/evaluate students' learning/progress during lock-down?

From figure 6, we can see that 'Avasar App' (128) and 'WhatsApp' (127) were mostly utilized apps by teachers for assessing the students' progress. Further, 62 teachers employed oral method for evaluating the students' performance whereas 45 teachers used tests Google Docs for assessing and evaluating learning progress of students in online classes during lockdown.
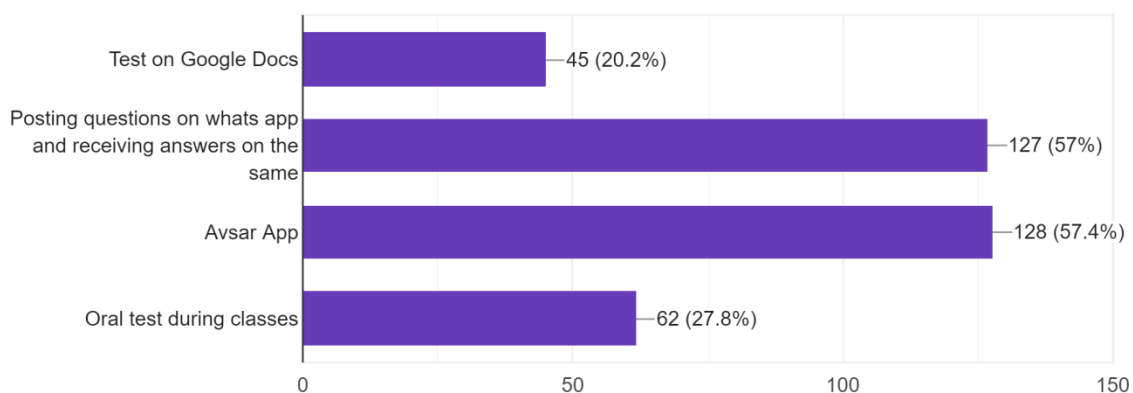

Figure 6: Evaluation methods used by teachers

Item 8: How did you solve educational problems of students during lock-down?

Observing figure 7, we can say that the majority of teachers (87%) used 'WhatsApp' for solving educational problems of students. Moreover, 28.3% and 13.9% teachers used Google meet and Zoom App respectively for solving educational problems of their students, whereas, 16.6% respondents solved educational problems of students through offline mode in schools by following Standard Operating Procedures(SOPs) for Covid-19.
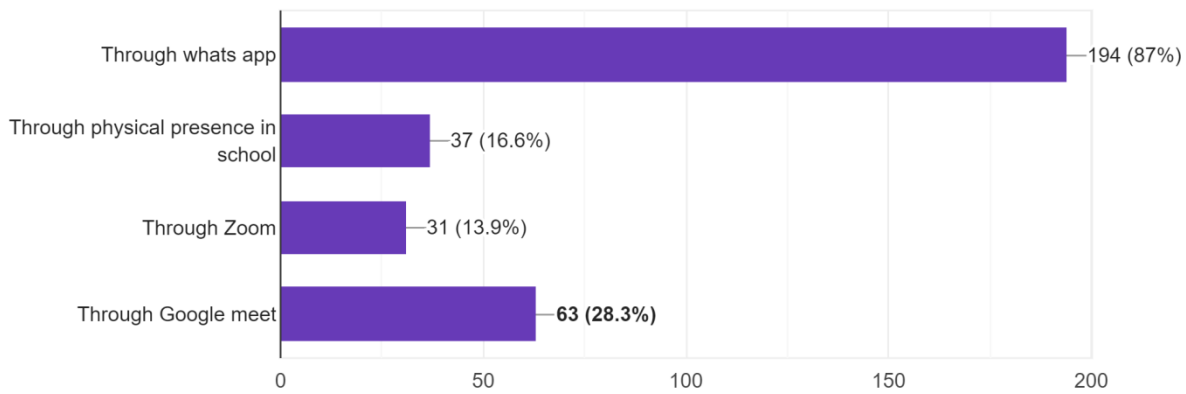
Figure 7: Methods used by teachers to solve educational problems of students

Item 9: Did you (teacher) teach any Children with Special Need (CWSN) student during lock-down? If 'Yes' please specify the method you used.

Table 4 represents that 89.24% teachers did not have any CWSN student in the class. It has been reported by 3.59% teachers that they used 'Whatsapp', 'Zoom App', and 'Vedio call' methods for fulfilling the learning needs of CWSN. Further, 'Discussion with parents', 'Thematic Method', 'Offline contact' and 'Demonstration Method' were used by 4.48% respondents for meeting the learning needs of CWSN. On the other hand, 2.69% respondents reported that they taught CWSN student but did not mention the method they used.

Table 4: Method used to teach CWSN students

Methods	Frequency	Percentage
No CWSN student in class	199	89.24
CWSN student in class but not mentioned teaching method	6	2.69
On 'Phone', 'WhatsApp' 'Zoom App', and 'Vedio Call'	8	3.59
'Discussion with parents', 'Thematic Method', 'Offline Contact' 'Demonstration method' etc.	10	4.48

Item 10: Response of students towards online teaching-learning during lock-down.

Figure 8 shows that 65.9% teachers received 'Good or Average' response from students during online classes. On the other hand, 31.4% participants reported that they attained poor response of students who were not supportive during online teaching learning. On contrary, only 2.7% teachers obtained 'Excellent' response from the students who were very supportive online teaching-learning. Thus it is clear that most of the students were supportive in online teaching learning process during pandemic.
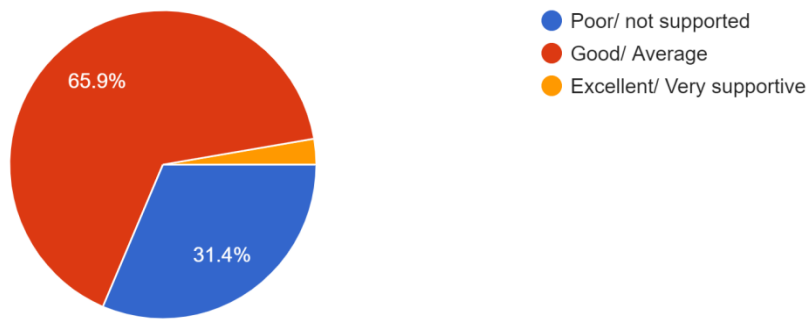
Figure 8: Response of Students towards online teaching-learning

Item 11: Problems you (teacher) faced during online teaching.

Figure 9 makes it clear that lack of devices on the part of students (69.5%) and issues related to network connectivity (63.7%) were major problems faced by respondents during online teaching. Lack of technical skills for taking online class through app was also a considerable issue as encountered by 25.1% teachers. Moreover, 14.8% teachers were overburdened with workload due to unorganized time table and schedule during lockdown. It was also stated by 102 (45.7%) respondents that they felt lack of interest and motivation in students for online classes. Further, 7.6% teachers were not comfortable in taking online classes due to techno phobia which caused stress and anxiety among them.
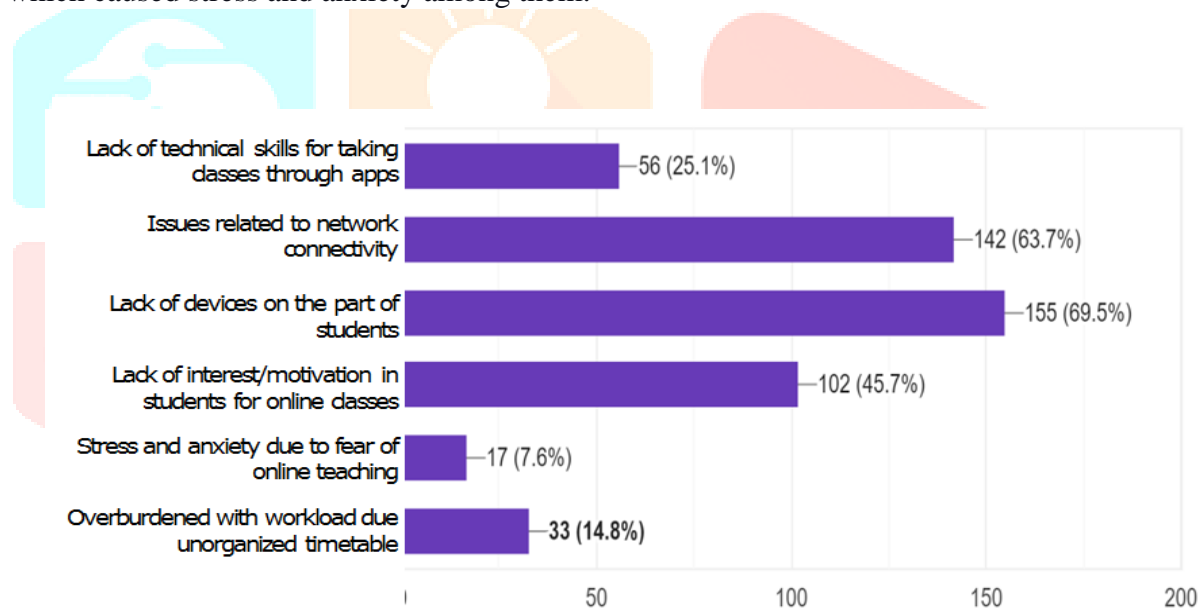

Figure 9: Problems faced by teachers during online teaching

Item 12: What do you think about online-teaching?

Table 5 indicates that 25.6% respondents perceived that online teaching increased working hours whereas 40.8% teachers felt overburdened due to online mode of teaching. Despite this, 39% respondents agreed upon the fact that online mode of teaching has improved their technical knowledge and skills. Moreover, 37.7% respondents found online teaching as novel and creative mode of teaching. Furthermore, 29.6% respondents considered online teaching as a good option for continuing teaching-learning process in pandemic situation. Additionally, 19.7% teachers asserted that online teaching is very helpful in completing the syllabus and removing doubts of students (15.2%). In addition, 7.6% respondents found online teaching as a comfortable mode of teaching and 20.2% teachers responded that they would like to use blended mode of teaching in

normal situation. Thus from the analysis, it can be concluded that respondents have positive perception towards online teaching.

Table 5: Opinion of Teachers' about online teaching

Teachers' Opinion	Frequency	Percentage
Online teaching is good option for students	66	29.6
Online teaching improves technical knowledge	87	39
Online teaching is very helpful in completing the syllabus	44	19.7
Online teaching is helpful in clearing doubts of students	34	15.2
Online teaching is comfortable	17	7.6
Online teaching increases the burden	91	40.8
Online Teaching increases working hours	57	25.6
I will use online teaching methods in regular class along with off line	45	20.2
I found something new and creative through online teaching	84	37.7

7.0 Results and Discussion

The study revealed that maximum number of teachers frequently interacted and shared teaching learning material through Whatsapp. The similar findings were reported by Bordoloi, Das and Das (2021) and Dubey and Singh (2020). Majority of teachers took regular classes through online mode and received 'Good or Average' response from students who were supportive during online teaching-learning. This finding is in consonance with Dubey and Singh (2020). It was also found that a few teachers had Children with Special Need (CWSN) in their classes and they adopted 'Phone', 'WhatsApp', 'Zoom App', 'Vedio Call', 'Discussion with parents', 'Thematic Method', 'Offline Contact' and 'Demonstration method' for facilitating the learning needs of CWSN. It was also found that lack of devices on the part of students, issues related to network connectivity, lack of technical skills were major problems faced by teachers during online teaching. The finding is in line with the results of Kamal and Illiyan (2021), Priyadarshini (2021), and Mohalik and Sahoo (2020). Some of the teachers felt overburdened due to heavy workload and increased working hours whereas a few of them were not comfortable in online teaching due to fear of technology use which created feeling of stress and anxiety as also reported by Rahayu and Wirza (2020). It was examined that majority of respondents had encouraging response towards online teaching as they found it as a creative and novel mode of teaching for transacting the curriculum and resolving the doubts of students and considered it as a good option for fulfilling the educational needs of the students. Some teachers showed their interest to use online teaching along with offline teaching in normal situation as online mode has helped them to improve their technical knowledge. This shows a positive perception of teachers towards online teaching. This finding is supported by Ali (2020), Mishra et.al. (2020), and Rahayu and Wirza (2020).

8.0 Conclusion

It may be concluded that Corona virus attack has forced many sectors to shift their working to online mode including education sector. In India especially in Haryana, technology was not very much utilized for education in Government schools before pandemic. Therefore, the need was felt to know the perception of school teachers towards online teaching so that their virtual teaching skills can be enhanced. From the findings, it can be concluded that Ghar Se Padhao' campaigne was successful as majority of teachers used Whatsapp and Phone for sharing educational content and instructions. 'Avasar App' launched by Government of Haryana and Whatsapp were frequently used apps for assessing the learning outcomes. Majority of teachers received 'Good or Average' response from students during online classes as they were very supportive during the process. Although many problems were faced by teachers during online teaching yet they considered it as a good option

for meeting the learning needs of students. Many teachers found online teaching novel and creative which enhanced their technical skills. The digitization of education system will also help in providing pathways for better facilities and readiness in shaping the teaching-learning process for any future crisis-like situations. In this way, by integrating technology in education vision of National Education Policy, 2020 can also be achieved effectively.

ACKNOWLEDGMENT

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