

Paradigm Shift in Learning and Teaching: Problems Faced by the Students to Attend Online Classes during Covid-19 Pandemic

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Abstract

Covid-19 is the global crisis with the wide spreading and creating chaos on the health of people, economy and also tremendous impact on education due to the sudden closure of universities, colleges, and schools. It is an unexpected pandemic to the world. India is the second highest infected country. The education system is adversely affected by this pandemic and disrupted the routine in India. During this pandemic, the universities and the colleges shifted their mode of delivery to the online education system to save the academic year of the students. It is a new system for Indian students, particularly for rural and tribal students. The aim of the present study is to understand the problems faced by the students to attend the online classes. It covered three State students via Andhra Pradesh, Assam and Mizoram pursuing their graduate and postgraduate courses. It is found that 79.8 percent of the respondents faced problems attending online classes. The major problem reported 40.7 percent is accessibility and internet speed. 56.5 percent reported that there is very little student-teacher interaction in online classes. Further, 43.1 percent of respondents Stated that their teachers used the power-point presentation method and 38.1 percent of respondents reported that their teachers used the lecture method. It is suggested that the universities and colleges should be provided with the technical skills to attend online learning classes on different devices like mobiles, laptops, and tablets. Governments should take initiative with telephone network companies to bring new schemes to provide free internet data and free smartphones to the students based on their course of study.

Keywords: Covid-19, online education, learning and teaching

Introduction

The present study focuses on the problems faced by the students who attend the online classes and also presents the teaching performance of the teachers through online mode. It also studied the government's support in the promotion of online mode teaching in India. Before this pandemic, students' participation through online education was very less. But, during this pandemic, to save the academic year of

the students, the universities and the colleges started an online education. It is a new paradigm for students and teachers. The students have to attend the online classes regularly from their homes. While attending the classes, the students have faced many challenges. Based on the above circumstances the present study is conducted to understand the problems faced by the students to attend the online classes during the Covid-19 pandemic in India.

Covid-19 is the global crisis with wide-spreading of this disease that is not only creating chaos on the health of people, economy, but also has a tremendous impact on education due to the sudden closure of educational institutions, universities, colleges, and schools. It is an unexpected pandemic to the world. India is the second highly infected country worst affected by this pandemic. The first patient of Covid-19 was identified in Wuhan city, China in late 2019. Then, it was spread to many countries in the world. India identified the first Covid-19 positive patient in Kerala on January 31, 2020. The first patient in India is a 20 years old female student who returned to Kerala from Wuhan city, China (Bindu, 2020). In continuation to that few incidents, such as Tablighi Jamaat meet in New Delhi, Dharavi slum in Mumbai, Koyambedu Market in Tamil Nadu became hotspots to spread this virus in India in the first wave of Covid-19. Very sharply, the government of India introduced different remedial measures of phases of the lockdown system to reduce the severity of Covid-19 in India. It succeeded and the administrators of the government of India earned a good name and fame from the Indians. After a year, in March 2021, the second wave of Covid-19 was started faster than the first wave.

Covid-19 is a disease that is caused by the 'novel coronavirus' and the common symptoms are fever, dry cough, difficulty in breathing, body pains, nasal congestion, runny nose, sore throat or diarrhoea. The symptoms may be changed from patient to patient and we may not find all the symptoms in one patient (Sucharita, 2020). The impact of Covid-19 is very high on various development and service sectors in India. Among them, the education sector is one which faced many struggles during the first wave and second wave.

Review of Literature

Adnan and Anwar (2020) found that online learning cannot produce desired results in underdeveloped countries, where most of the students are unable to access the internet due to technical as well as financial issues. There is no face-face interaction between the students and the teachers' leads to a lack of socialisation. Shetty Sandeep et al. (2020) found that 52 percent of the students used mobile, 36 percent used laptops to attend online classes. And 57 percent of the students predominantly favoured online classes for doubt clarification. The majority 89 percent of the students preferred online teaching for their learning. Rayhanul (2020) found that 68.9 percent of respondents are using mobile data to attend online classes. The study observed that the majority of the students participated from cities and towns. The majority of them Stated that they do not have any technical issues with attending online classes because they live in urban areas. But the respondents who attended from rural areas faced technical issues like, poor network, internet balance is not enough. Abaid (2020) found that 88 percent of students had no proper internet facility and they faced lots of network issues. And 65 percent of students were not satisfied with online learning, 85 percent of students complained about eyesight issues by attending online classes on devices, and 50 percent of students were unable to manage the university affairs. Mahyoob (2020) revealed that most English language learners are not satisfied with continuing online learning, as they could not fulfil the expected progress in language learning performance. Overall, in the review of literature, it is understood that online teaching is new to developing countries like India. The majority of the students are from low-income families, most of the students do not have laptops or

personal computers. They attended online classes through mobile phones. The students from rural areas faced many more problems than urban ones. This is a new paradigm for the students and teachers of developing countries, but not new for the developed countries because they practiced online teaching for many years. A few studies have been conducted on this topic in foreign countries, developed countries and the forward States of India.

Scope of the Study

India is a developing country. Before this pandemic, students' participation in the online education system was very less. During this pandemic, to save the academic year of the students, the universities and the colleges started an online education system. It is a new paradigm for teachers and students. The students have to attend the online classes regularly from their homes. While attending the classes, the students have faced many challenges. It is a new system for the students in general, rural and tribal in particular. Poor internet connectivity, internet speed is very slow, power-cuts or lack of electricity, household responsibilities, peer pressure and cultural barriers are the major problems for the students. Based on the above circumstances the present study is conducted to understand the problems faced by the students to attend online classes during the Covid-19 pandemic in India.

Objectives of the study

1. To study the socio-economic, educational and demographic profile of the students.
2. To know the problems and difficulties faced by the students to attend the online classes during the COVID -19 pandemic.

3. To study the perceptions of the students on the teaching performance of their teachers in online mode.
4. To study the government schemes and support the students in the promotion of online mode teaching.

Research Methodology

This study is conducted in three different States of India viz. Andhra Pradesh, Assam and Mizoram. Andhra Pradesh is from the South, Assam is from the East and Mizoram is from the Northeast States of India. It is a quantitative study in nature. A descriptive research design was formulated for the present study to describe, compare and analyse the perceptions of the students on their problems faced to attend the online classes. This study has adopted the purposive sampling method and selected the students and the colleges purposively in the States of Andhra Pradesh, Assam and Mizoram. The sample of the present study is 263 students pursuing their graduation and post-graduation. The data were collected from science, engineering, arts and commerce streams pursuing their graduation and post-graduation. Both male and female students participated in this study. The data were collected through a structured questionnaire shared by Google forms. The questionnaire was prepared in English language with 22 variables on socio-economic profile, problems faced by students and teaching methods adopted by their teachers. This study was conducted in May 2021. And the collected data were analysed through MS-Excel 2010 and SPSS 17th version.

Results and Discussions

The below table presents the State-wise classification of the respondents

Table-1: Distribution of the respondents by their State

State	Frequency	Percentage
Andhra Pradesh	81	30.8
Assam	128	48.7
Mizoram	54	20.5
Total	263	100.0

The data in the above table 1 revealed that 48.7 percent of the respondents are from Assam State, 30.8 percent of respondents from Andhra Pradesh State and the remaining 20.5 percent of the respondents are from Mizoram State. The respondents in the present

study are graduation and post-graduation students. The students of Assam State actively participated in online data collection and provided the information. The following table presents the information about the gender of the respondents.

Table-2: Distribution of the respondents by their gender

Gender	Frequency	Percentage
Male	87	33.1
Female	176	66.9
Total	263	100.0

The data in the above table 2 revealed that the majority of the respondents 66.9 percent are female, followed by 33.1 percent of the respondents are male. This study is in line with the study of Keerthi (2018), who reported that the

numbers of female students are high in the government institutions. The following table presents the information about the educational qualifications of the respondents

Table-3: Distribution of the respondents by their education

Education	Frequency	Percentage
Graduation	122	46.4
Post-Graduation	141	53.6
Total	263	100.0

The data in the above table 3 revealed that the majority of the respondents are 53.6 percent who are pursuing post-graduation and the remaining

46.4 percent of the respondents are pursuing their graduation. The following table presents the information about the stream of the study.

Table-4: Distribution of the respondents by their stream of Study

Stream of Study	Frequency	Percentage
Arts and Commerce	217	82.5
Science and Technology	39	14.8
Engineering	7	2.7
Total	263	100.0

The data in the above table 4 revealed that the majority of the respondents 82.5 percent are from the arts and commerce stream, while 14.8 percent of respondents are from the science and technology stream and 2.7 percent of respondents are from the engineering stream. It is observed that in the review of literature, a few studies conducted on this topic, with more doctor students and engineering students. But in this study the majority of students are

from arts and commerce background. Basically, the students from the arts and commerce have less technical skills and face many problems attending online classes. Based on this background, the researchers purposely selected more students from the arts and commerce stream. It may be a reason that the student representation from the arts and commerce is high in this study. The following table presents the information about the parent's income.

Table-5: Distribution of the respondents by their parents' income

Parents' Income	Frequency	Percentage
Above Poverty Line	84	31.9
Below Poverty Line	179	68.1
Total	263	100.0

The data in the above table 5 revealed that the majority of the respondents are 68.1 percent from 'below poverty line' families and the remaining 31.9 percent of the respondents are from 'above poverty line' families. In India, the people who have less than Rs.180, 000/-

income will be called 'below poverty line' families. And the people who have more than Rs.180, 000/- income will be called 'above poverty line' families (Khattar, 2021). The following table presents the information about the living area of respondents.

Table-6: Distribution of the respondents by their living area

Area of living	Frequency	Percentage
Urban	96	36.5
Rural	142	54.0
Tribal	25	9.5
Total	263	100.0

The data in the above table 6 revealed that the majority of the respondents are 54.0 percent living in the rural area, followed by 36.5 percent of the respondents are living in urban areas. Only 9.5 percent of the respondents

are living in the tribal area. This study is in line with the national average of the population in India. The following table presents the information about the device used by the respondents to attend the online classes.

Table-7: Distribution of the respondents by the device used to attend the online classes

Device used	Frequency	Percentage
Laptop	13	4.9
Smartphone	249	94.7
Tablet	1	0.4
Total	263	100.0

The data in the above table 7 revealed that the majority of the respondents 94.7 percent used smartphone devices and only 4.9 percent of the respondents used laptop devices to attend online classes during the Covid-19 pandemic. The study is in line with the study of Ally who Stated that 79 percent of the students in his study used smartphone devices to attend the online classes

(Ally and Wark, 2019). The study is also in line with the study of Rahman (2021) who reported that 81.82 percent of the respondents in his study used smartphones, 7.58 percent used computers to attend the online classes. The following table presents the information about the learning platform of the respondents.

Table-8: Distribution of the respondents by the learning online platform

Learning online platform	Frequency	Percentage
Google Meet	126	47.9
Zoom	126	47.9
Microsoft Teams	11	4.2
Total	263	100.0

The data in the above table 8 revealed that 47.9 percent of the respondents used Google Meet and equally 47.9 percent of the respondents used the Zoom meeting link and only 4.2 percent of the respondents used Microsoft Themes to attend the online classes. The study is in contrast with the study of Thakker et al. (2021) who reported that Microsoft Teams is the best platform followed by Google Meet, Zoom. This study in contrast with the study of Naik who reported that 81.7 percent of the respondents attended online classes

through the Zoom meeting link and only 12 percent of the respondents used Google meet (Nail et al., 2021). It may be a reason that these institutions adopted and bought time in Google Meet and Zoom. Learning is an important aspect of every human being's life. Every day we learn new things. The respondents in the present study learned the techniques to participate in online classes by different types. The following table presents the learning type of the respondents to attend the online classes.

Table-9: Respondents by their learning type to attend the online classes

Learning type	Frequency	Percentage
Self-learning	170	64.6
Trial and error	18	6.8
Guidance from staff	28	10.6
Guidance from students	47	17.9
Total	263	100.0

The data in the above table 9 revealed that the majority of the respondents 64.6 percent have learned techniques by self to participate in the online classes, followed by 17.9 percent of the respondents got guidance from fellow

students, and the remaining 10.6 percent learned techniques by attending the training programmes organised by their respective universities and get guidance from the technical staff. It is observed that 6.8 percent of the respondents

had learned the techniques by trial and error approach to attending the online classes. It is observed that many universities conducted training for teachers, but not conducted capacity

building programmes for students. The data about students' education and learning technique was cross-tabulated and presented in the below table.

Table-10: Respondents by their education and type of learning techniques to attend the online classes

Education	Learning type				Total
	Self-learning	Trial and error	Guidance from staff	Guidance from students	
Graduation	89 (52.4) (72.9%)	8 (44.4) (6.6%)	12 (42.9) (9.9%)	13 (27.7) (10.6%)	122 (46.4%) (100%)
Post-Graduation	81 (47.6) (57.4%)	10 (55.6) (7.1%)	16 (57.1%) (11.3%)	34 (72.3) (24.2%)	141(53.6%) (100%)
Total	170 (100%) (64.7%)	18 (100%) (6.8%)	28 (100%) (10.6%)	47 (100%) (17.9%)	263 (100%) (100%)
Pearson Chi-Square: 9.229(a)			df. 3	Significance: 0.05	

Analysis of the data on education and type of learning techniques are cross-tabulated and the result shows that there is an association between two variables as it is evident that the more post-graduation respondents have done trial and error method to learn the

techniques to attend the online classes and it is proved with the significance at 0.05. The following table presents the information about the problems faced by the students who attend the online classes.

Table -11: Respondents whether they faced problems to attend the online class

Problems faced	Frequency	Percentage
Yes	210	79.8
No	53	20.2
Total	263	100.0

The data in the above table 11 revealed that the majority of the respondents 79.8 percent faced problems, while 20.2 percent of respondents did not face any problems attending the online classes. It may be a reason that online learning is a new concept for students, particularly for rural and tribal students. The study

is in line with the study of Gaur et al. (2020) which reported that 61 percent of the respondents perceived barriers while participating in online classes. The below cross table presents the information on an area of living and problems faced by the students.

Table -12: Respondent's area of living and problems faced to attend the online classes

Area	Problems faced		Total
	Yes	No	
Urban	69 (32.9%) (71.9%)	27 (50.9%) (28.1%)	96 (36.5%) (100%)
Rural	118 (56.2%) (83.1%)	24 (45.3%) (16.9%)	142 (54%) (100%)
Tribal	23 (10.9) (92%)	2 (3.78%) (8%)	25 (9.5%) (100%)
Total	210 (100%) (79.8%)	53 (100%) (20.2%)	263 (100%) (100%)
Pearson Chi-Square: 7.019(a)		df.2	Significance: 0.05

Analysis of the data on the area of living and problems faced by the students to attend online classes are cross-tabulated and the result shows that there is an association between two variables, as it is evident that more tribal and rural respondents have faced problems than urban students to attend the online classes and it is proved with the significance at 0.05. This finding

is in line with the finding of Islam who reported that the respondents who attended from rural areas are faced technical issues like, poor network, internet balance is not enough (Islam et al., 2020). The following table presents the information about the type of problems faced by the students to attend the online classes.

Table-13: Respondents by type of problems faced to attend the online classes

Type of Problems faced	Frequency	Percentage
Internet speed and accessibility	107	40.7
Insufficient and limited internet balance	53	20.2
Disturbance from family and more household work	79	30.1
Frequent power cuts	13	4.9
No smartphone	11	4.2
Total	263	100.0

The data in the above table 13 revealed that 40.7 percent of the respondents Stated that internet speed and accessibility in their locality is a problem, while 30.1 percent Stated that

disturbance from the family members and more household work on them at their houses, and 20.2 percent Stated that the internet balance is limited and not sufficient to attend all the classes.

Some of them are also reported that there is a frequent power-cut in their locality, and some students not having a smartphone to attend the classes. It is observed that the tribal and rural students attended daily wage work, MGNREGS work during the period of online classes to earn money for their family livelihood. The study is in line with the study of Muthuprasad et al. (2021)

who reported that 53.58 percent of respondents faced problems in internet speed and accessibility. Mahyoob (2020) also reported that 48 percent of the respondents in his study faced problems with the low speed of the internet. Strategies of the students to overcome the problems are discussed in the following table.

Table-14: Respondents by their strategies to overcome the problems to attend the online classes

Strategies	Frequency	Percentage
Travelled to network place	69	32.9
Spent more money for internet	56	26.7
Buy a smartphone	23	10.9
Not attended the class	28	13.3
Attended class at last minutes	11	5.3
Buy a power bank	23	10.9
Total	210	100.0

The data in the above table 14 revealed that 32.9 percent of the respondents travelled to the places where internet networks are available, followed by 26.7 percent reported that they buy more internet data and spend more money on the internet and 10.9 percent of the respondents buy a smartphone and power bank. It is observed that 13.3 percent of the respondents have not attended the classes, and 4.2 percent of

the respondents attended the classes at the last minute. This study is in line with the study of Sethy (2020) who reported that the students walked for 5 km for the online study in one of the tribal-dominated Khajuripada blocks under Kandamala District of Odisha. The following table presents the information about the support of caregivers to attend the online classes.

Table-15: Respondents by their caregivers support to attend online classes

Caregivers support	Frequency	Percentage
Yes	150	57.0
No	113	43.0
Total	263	100.0

The data in the above table 15 revealed that the majority of the respondents 57.0 percent got support from their caregivers to attend the online classes while 43.0 percent of the respondents

did not get support from their caregivers. The following table presents the information about the cultural barriers faced by the students to attend the online classes.

Table-16: Distribution of the respondents' whether they faced any cultural barriers

Cultural barriers	Frequency	Percentage
Yes	65	24.7
No	198	75.3
Total	263	100.0

The data in the above table 16 revealed that the majority of the respondents 75.3 percent have not faced any cultural barriers to attending the online classes, while 24.7 percent of the respondents faced cultural barriers, i.e. puja in the class time, local festivals, at the time of reproductive cycle etc. The study

is in line with the study of Baticulon (2021) who reported that the students of the Philippines faced socioeconomic and cultural barriers to access the technological resources. The following cross-table presents the information on parents' income and cultural barriers.

Table-17: Respondents by their parent's income and cultural barriers faced to attend the online classes

Parents Income	Cultural barriers		
	Yes	No	Total
Above Poverty Line	13(20%) (15.5%)	71(35.9%) (84.5%)	84(31.9%) (100%)
Below Poverty Line	52(80%) (29.1%)	127(64.1%) (70.9%)	179(68.1%) (100%)
Total	65(100%) (24.7%)	198(100%) (75.3%)	263(100%) (100%)
Pearson Chi-Square: 5.661(b)		df.1	Not Significance: 0.05

Analysis of the data on parent's income and cultural barriers faced by the students to attend online classes are cross-tabulated and the result shows that there is an association between two variables as it is evident that the students in below poverty line families

have faced more cultural barriers to attending the online classes and it is proved with the not significance at 0.05. The following table presents the support and encouragement of the government to the students to encourage online classes.

Table-18: Respondents by receiving government support to attend the online classes

Government support	Frequency	Percentage
Yes	40	15.2
No	223	84.8
Total	263	100.0

The data in the above table 18 revealed that the majority of the respondents 84.8 percent reported that they have not received any support from the government to attend the online classes, while 15.2 percent of the respondents reported that they received support from the government to attend the online classes. They Stated that they received laptops and mobile phones from the government and politicians. The Government of Andhra Pradesh

introduced a scheme titled 'ammavodi', which provides Rs.15000/- every year to the mothers of students up to class 12. From the year 2021, the government is ready to provide the laptop or mobile phone under this scheme to the interested students. This initiative helps the students to attend the online classes easily. The following table presents the information about the favourite online teaching methods of the students.

Table-19: Distribution of the respondents by their interesting teaching method

Teaching method you like	Frequency	Percentage
Offline	210	79.8
Online	49	18.6
Both	4	1.5
Total	263	100.0

The data in the above table 19 revealed that the majority of the respondents 79.8 percent interested in offline classroom teaching methods, whereas 18.6 percent of respondents Stated that they are interested in online teaching methods because it saves time and helps to learn new technologies. Only 1.5 percent of the respondents Stated that they are interested in both methods. This study is in contrast with the study of Mutuprasad (2020) who reported that 57.75 percent of respondents in his study reported that online teaching is flexible and comfortable. It may be a

reason that the study was conducted in urban areas. This study is in line with the study of Chakraborty who reported that 65.9 percent of the respondents in his study felt that offline classes are better for learning than online classes (Chakraborty et al., 2020). And Naik et al. (2021) also reported in his study that 86.3 percent of the respondents are interested in offline teaching methods. Overall, classroom teaching is a better method for learning and teaching. The following table presents the information about how many teachers taught the classes online regularly.

Table-20: Distribution of the respondents by how many teachers taught in their class

How many teachers taught	Frequency	Percentage
No teacher	3	1.2
20 percent teachers	58	22.1
40 percent teachers	55	20.9
60 percent teachers	45	17.1
80 percent teachers	48	18.2
100 percent teachers	54	20.5
Total	263	100.0

The data in the above table 20 revealed that 22.1 percent of the respondents Stated that only 20 percent of the teachers taught online classes, while 20.9 percent of the respondents Stated that only 40 percent reached the online classes, and 20.5 percent respondents Stated that 100 percent of the teachers

taught online classes. It is observed that only a few percent of the teachers have taught online classes regularly. The remaining teachers have not done their duties properly. The following table presents information about the satisfaction of the respondents in online classes.

Table-21: Respondents by their satisfaction on the teaching of teachers

Satisfaction on online classes	Frequency	Percentage
Not satisfied	87	33.5
Average	81	31.1
Good	68	26.2
Very good	21	8.0
Not applicable	3	1.2
Total	260	100.0

The data in the above table 21 revealed that 33.5 percent of the respondents are not satisfied with online teaching, while 31.1 percent Stated that their satisfaction with online teaching is average. And 26.2 percent of the respondents reported that their satisfaction with online teaching is good and only 8.0 per cent of the respondents

Stated that online teaching is excellent. The study is in contrast with the study of Naik et al. (2021) who reported that 70 percent of the respondents in his study are not completely satisfied with the online teaching method. The following table presents the information about the teacher-student interaction in online classes.

Table-22: Respondents by their opinion of teacher-student interaction

Teacher student interaction	Frequency	Percentage
No interaction	57	21.9
Very less interaction	147	56.5
More interaction	53	20.4
Not applicable	3	1.2
Total	260	100.0

The data in the above table 22 revealed that the majority of the respondents 56.5 percent Stated that there is very little teacher-student interaction in online teaching, while 21.9 percent of the respondents Stated that there is no interaction, and 20.4 percent of the respondents Stated that there is more student-teacher interaction in online

teaching. This study is in line with the study of Gaur et al. (2020), who reported that 40.4 percent of the respondents in his study strongly agreed that online classes have lacked student-teacher interaction. The following table presents the information about the student-student interaction in online classes.

Table-23: Respondents by their opinion on student-student interaction

Student-student interaction	Frequency	Percentage
No interaction	86	33.1
Very less interaction	121	46.5
More interaction	53	20.4
Total	260	100.0

The data in the above table 23 revealed that the majority of the respondents 46.5 percent Stated that there is a small student-student interaction in online classes, while 33.1 percent of the respondents reported that there is no student-student interaction in online classes. And 20.4 percent of the respondents Stated that there is more student-student interaction in online

teaching. The study is in line with the study of Ali Sher (2009) who reported that there is a Student-instructor interaction and student-student interactions were found to be significant contributors of student learning and satisfaction. The data in the below table presents information about the teaching techniques used by the faculty members in online teaching.

Table-24: Teaching techniques used by the faculty members during the online classes

Teaching techniques	Frequency	Percentage
Lecture	99	38.1
PPT	112	43.1
Assignments	29	11.2
Brainstorming	5	1.8
Story telling	12	4.6
No teaching, only attendance	3	1.2
Total	260	100.0

The data in the above table 24 revealed that the majority of the respondents 43.1 percent Stated that their teachers used the power-point presentation to teach in online classes, while 38.1 percent of the respondents Stated that their teachers used the lecture method in online mode teaching. And 11.2 percent of respondents Stated that their teachers were given the assignments, 4.6 percent of respondents Stated that their teachers used the storytelling method and 1.8 percent of respondents Stated that their teachers used the brainstorming method. It is observed

that 1.1 percent of the respondents Stated that their teachers have not taught anything, they have just taken an attendance in the online mode teaching. The study is in contract with the study of Rahman (2021) who reported that 57.5 percent of the teachers in his study used the power-point presentation method.

Suggestions and Recommendations

1. Universities and colleges should provide training to students, particularly rural and tribal students on technical skills to attend online

- learning classes on different devices like mobiles, laptops and tablets.
2. Governments should talk with telephone network companies to bring new schemes to provide internet data at low price and also provide the free smartphones to the students based on their course of study. It may reduce the financial burden to the students and their parents to attend the online classes during the Covid-19 pandemic.
 3. Government should reduce (at least 20 per cent) the syllabus of the subjects, because it is very difficult to cover and read all the topics of the subjects in online mode
 4. After completion of the online classes, the colleges and universities should upload the recorded videos of the class teachers in the websites of the colleges or universities. These are helpful to the students to re-watch the class to clarify their doubts.
 5. Teacher is an important person in online teaching and learning. The teachers should be provided with well-organized teaching and study materials for examinations. Classes should be more interactive and flexible. Group discussions and group projects may be assigned to the students with the creation of a separate classroom.
 6. Teachers should be provided psychological, motivational support to the students. Providing career counselling is also an important activity for the students.
 7. Universities and colleges should be provided with continuous capacity building programmes for teachers to update their knowledge on online techniques and online teaching skills.
 8. Power-point presentation is one of the best methods for online teaching because the students have a chance to read the content during the session. All teachers should use power-point presentations in their online classes.
 9. The teachers, universities and colleges should organize guidance and career counselling programmes online to improve the attendance of the students in regular classes.
 10. The universities and the colleges should develop a separate teaching room with computers and the internet in every department; it will be helpful to the teachers who do not have a laptop and smartphone. It will be helpful to the teachers who do not have technical skills to operate the online classes.
 11. The teachers should avoid the teaching method of 'giving notes and explanation' in online teaching because we don't know whether the students are writing or not.
 12. The students should be asked questions to clarify their doubts in online classes. It observed that some students are attending the classes at the last minute. These students should change their mind-set, and have to participate in online classes actively.
 13. The students should adopt the learning habit and increase the regular reading habits on their subjects. It helps to increase the interest to attend the online classes.

Limitations and Scope of further research

Adequate care has been taken to make this study more comprehensive. However, it was not free from some limitations. The data collected only from 263 students pursuing their graduation

and post-graduation in three Indian States only. Due to the Covid-19 pandemic, the researcher prepared a questionnaire in English language and shared via Google forms. The students who have knowledge in the English language and have a smart phone with internet are actively participating in this study. The results are more suitable to them. The data collected in May 2021 and the findings of the study relevant to that period. The findings cannot be generalized and they are applicable to the present study only.

There are 29 States in India, the present study conducted in three States only, further it can be conducted at a broader level in all the States of India. There is a scope to conduct a study on problems faced by the teachers to teach in online classes, and the teacher-student behaviour in the online classes and their perceptions not studied in the present study. Further, a study also can conduct knowledge of the students-teachers on the features available in online education.

Conclusion

Covid-19 is an unexpected pandemic to the world. The first wave and second wave have created a lot of difficulties in many sectors. Among them, higher education is one. The higher education sector adopted the online education system in teaching and learning and saved the academic years of the students. This study presented the problems faced by the students to attend the online classes and the teaching performance of the teachers in online mode. The government should provide support to the students of 'below poverty line' to participate in online classes. The universities and the colleges should monitor the performance of the teachers in online teaching. Overall, the online education system in India succeeded in increasing the participation of the students.

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