

COPING UP COVID-19 AND SUSTAINABLE ACADEMIC ENVIRONMENT IN NEW-NORMAL PERIOD IN URBAN AREA OF WEST BENGAL, INDIA

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An exceptional situation in history of education come about as schools, colleges and universities were shut down, classes and examinations of school was suspended and postponed for COVID - 19. Both teachers and students compelled to accustom with online teaching and learning methods though facing difficulties in early stage. As schools reopen, teachers have to provide formal and informal support to students to ensure a smooth continuation of their education in safe and healthy environment in new normal post-COVID-19 period.

Introduction

The Pandemic COVID -19 has spread over whole world and compelled the human society to maintain social distancing. On February 11, 2020, the World Health Organisation (WHO) proposed an official name of the virus as COVID-19, an acronym for Corona virus disease 2019. It was first identified in Wuhan, China on December 31, 2019. First death by COVID-19 was the 61-year-old man in Wuhan, China on January 11, 2020. WHO declared COVID-19 as a pandemic on March 11, 2020 (WHO 2020). The first case of the COVID-19 Pandemic in India was reported to an affected, travelled from Wuhan, China on 30 January 2020 in the state of Kerala¹. The first death due to novel *coronavirus* was reported in India on March 12, 2020. It has impacted more than 4.5 million peoples worldwide². According to the UNESCO report, it had affected more than 90% of total world's student population during mid-April 2020. Outbreak, of COVID-19 has affected more than 120 corers of students and youths across the world and more than 32 corers of students in India³. After observing the corona virus pandemic situation, the WHO advised to maintain social distancing as the first prevention step. So, every country started the action

of lockdown to separate the contaminated people. An exceptional situation in the history of education come about as schools, colleges and universities were shut down, classes and examinations of school was suspended and postponed. Thus, the lockdown shattered the schedules of every student.

Initially, West Bengal government, India also had closed the schools temporarily to mitigate the impact of COVID -19. Later school was resumed for a few grades but had to shut down again as the number of infection rates increased. Though schools are closed, students are continuing their lessons through various mode like virtual classrooms, television programs, radio programs etc. For welfare of the students, technology facilitate the school education without affecting them by the life-threatening virus and can stay safe at home. The students and teachers interact virtually through online classrooms, webinars, digital exams etc. But it is not available to many students all over the West Bengal, India mainly in rural area. The aim of this study was to investigate perceptions and experiences of the school students during COVID-19 pandemic and explore any potential impacts on their wellbeing. The findings of the study will help authorities in policymaking to upgrade the infrastructure, improve school environment and assist every student to provide education during and after pandemic.

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Materials and Methods

A qualitative and quantitative study with focus groups was conducted with secondary and higher secondary students at two academic institutions located in urban area of North 24 Parganas district near Kolkata, West Bengal, India. Academic institutions are of boys and girls school respectively. The focus groups of students with the age range of the students between 15–18 years. Interviews were conducted strategically with individual, small focus groups and larger groups for qualitative data collection during February to April and November to December 2021 when students were arriving back to the school after stay-at home restrictions. For practical reasons semi-structured interviews were also conducted with groups of students to encourage open conversation for sensitive issues. Data were analysed thematically to realise students' behaviour, psychology and experiences. Practical, personal, academic and psychological challenges faced by them during Covid-19 Pandemic situation also investigated thematically. Students' attendance data was recorded for quantitative study. Percentage of attendance was calculated particularly in selected months which are common during Covid-19 Pandemic situation. ANOVA statistical analysis were conducted in Microsoft Excel 2013 to investigate variation of students' attendance of different class in respect of pre Covid-19 Pandemic situation and Covid-19 Pandemic situation. Variation of Students' attendance in respect of gender also investigated. Probability less than 0.05 ($P < 0.05$) was considered as statistically significant.

Results and Discussion

The COVID-19 pandemic affected the education sector all over the world, near to temporarily shut down of all activities. The mind-set of students towards education changed altogether in post COVID. Therefore, the study conducted with the intention to know the perception of the students towards school education after the outbreak of COVID-19 in West Bengal, India. The study

investigates whether the educational profile and attendance of students have any variation on perception towards school educational environment. Data and information presented in current study are collected from two academic institutions located in urban area of North 24 Parganas district near Kolkata, West Bengal, India. Students are mostly coming from middle or poor class, many of them are even from below poverty line. So, the investigation outcome manifest insights of psychological, academical, even social impact of COVID-19 pandemic on particular population of society. This study also demonstrates students' perspective to school environment and education in new- normal period. The primary intension of this work to discuss the impact of COVID -19 pandemic on school environment. Due to the COVID - 19 Pandemic, Schools in Bengal were shut down unprecedentedly in mid-March 2020 and reopened in February 2021 for secondary and higher secondary students i.e. of classes IX to XII. But had to be shut again in mid April 2021 due to the assembly elections

Table 1. Average percentage of attendance of students of classes IX, X and XI of selected schools from 2018 to 2021.

Month	Year	Percentage of attendance of class IX		Percentage of attendance of class X		Percentage of attendance of class XI	
		School-A	School-B	School-A	School-B	School-A	School-B
February	2018	58.13	70.98	55.32	76.79	51.31	70.18
	2019	51.20	62.45	51.92	69.9	48.65	55.57
	2020	61.92	63.64	60.10	64.68	49.64	52.70
	2021	32.01	26.05	31.33	31.9	25.00	35.43
March	2018	50.86	68.28	48.20	72.15	61.24	60.05
	2019	54.03	66.90	50.87	65.74	61.29	64.26
	2020	59.52	67.82	52.13	66.12	68.71	69.82
	2021	22.14	24.87	16.67	29.29	14.75	30.29
April	2018	59.02	66.92	67.31	85.58	56.48	61.81
	2019	60.27	70.41	60.57	68.16	62.67	66.06
	2020	00	00	00	00	00	00
	2021	14.28	15.98	12.93	11.79	5.10	19.78
November	2018	64.18	71.25	67.31	82.28	60.03	62.45
	2019	64.67	71.82	58.92	68.02	56.21	57.14
	2020	00	00	00	00	00	00
	2021	48.58	55.02	33.23	44.17	37.56	51.03
December	2018	95.59	98.06	90.13	98.02	51.08	65.19
	2019	92.59	97.62	80.22	95.29	53.63	64.51
	2020	00	00	00	00	00	00
	2021	20.08	43.13	60.39	79.05	22.58	34.64

and the second wave of COVID-19. Schools for students of classes IX to XII resumed in November, 2021, with maintaining social distance, using hand sanitizers, soap and water, wearing mask, but were shut down again on January 3, 2022 due to the third surge. Finally, Educational institutions in West Bengal resumed from February 3, 2022 as COVID -19 cases have dropped over the past few weeks. Prior to the reopening of schools, the West Bengal government issued Standard Operating Procedures (SOPs).

Table 1 represents the average percentage of attendance of students of classes IX, X and XI of selected schools from 2018 to 2021. Comparing the percentage of the attendance of students before and during pandemic, it is clear that many parents avoid sending students to the school irrespective of boys and girls ($P < 0.05$) (Table 2). Further, the significance of the model parameters has been checked by comparing P values with a 0.05 significance level. Fig 1, Fig 2 and Fig 3 represents average percentage of students' attendance of classes IX, X and XI of selected schools from 2018 to 2021 respectively. The result suggested that the pandemic have much impact on attendance of students for Class IX, attendance of students for the month February, April and December are statistically significant i.e $P < 0.05$. Attendance of students for the month March and November not significant ($P > 0.05$) due to the government policy of alternate day attendance. Moreover, Vaccination started from March 2021 for the age group 18 to 45 in the school. Similar result is observed in case of class XI attendance of students.

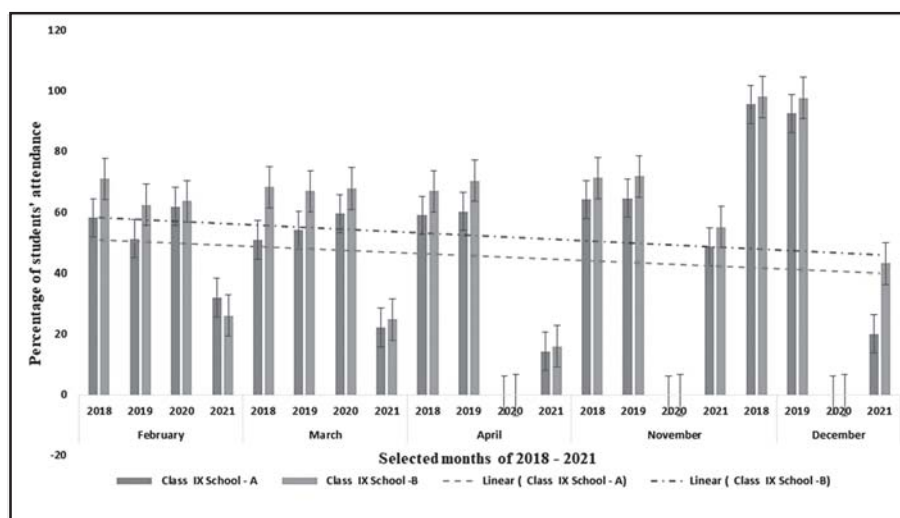


Fig. 1. Average percentage of students' attendance of classes IX of selected schools from 2018 to 2021.

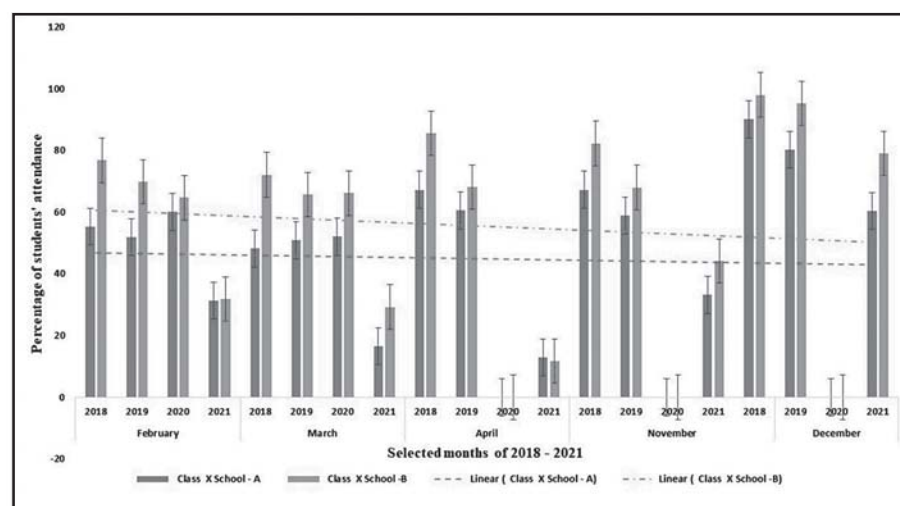


Fig. 2. Average percentage of students' attendance of classes X of selected schools from 2018 to 2021.

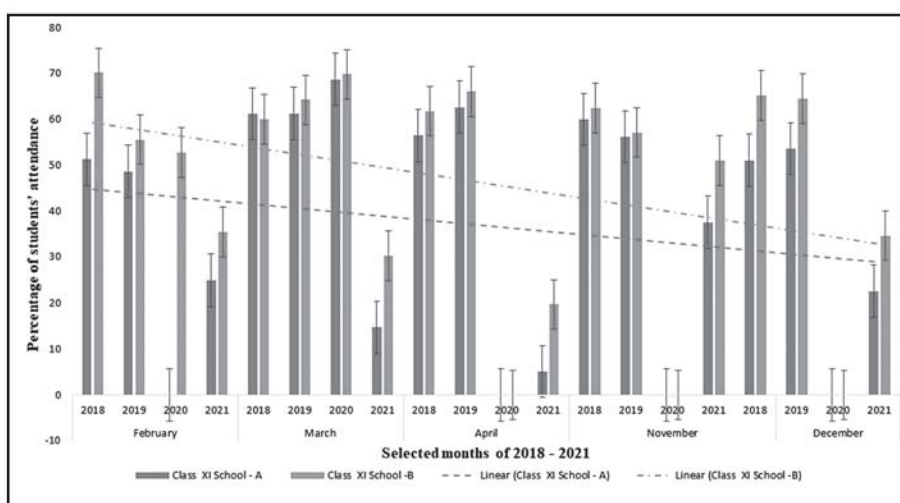


Fig. 3. Average percentage of students' attendance of classes XI of selected schools from 2018 to 2021.

Table 2. ANOVA results for class IX, X and XI of selected schools.

Class	Month	Variation	Sum of Squares (SS)	Degrees of Freedom (df)	Means of Squares (MS)	F	P-value	F crit
IX	February	Interaction	9360.811	3	3120.27	4.479481	0.004467	2.644903
		Within	156031.6	224	696.5696			
	March	Interaction	11078.29	3	3692.762	6.40482	0.000347	2.643511
		Within	133761.9	232	576.5599			
	April	Interaction	11078.29	3	3692.762	6.40482	0.000347	2.643511
		Within	133761.9	232	576.5599			
	November	Interaction	4917.31	3	1639.103	1.994102	0.11561	2.643511
		Within	190698.3	232	821.9756			
X	February	Interaction	5328.989	3	1776.33	3.213	0.023652	2.642213
		Within	132685.7	240	552.8571			
	February	Interaction	2676.9	3	892.2999	1.371206	0.252392	2.644903
		Within	145766	224	650.7411			
	March	Interaction	948.2181	3	316.0727	0.460758	0.709953	2.642213
		Within	164636.1	240	685.9838			
	April	Interaction	5.558246	3	1.852749	0.002381	0.999839	2.643511
		Within	180549.7	232	778.2316			
XI	November	Interaction	359.4002	3	119.8001	0.125098	0.945195	2.643511
		Within	222173.9	232	957.6459			
	December	Interaction	527.008	3	175.6693	0.330041	0.803638	2.642213
		Within	127743.8	240	532.2657			
	February	Interaction	2676.9	3	892.2999	1.371206	0.252392	2.644903
		Within	145766	224	650.7411			
	March	Interaction	6311.451	3	2103.817	3.70291	0.012382	2.642213
		Within	136356.6	240	568.1524			
	April	Interaction	1092.413	3	364.1378	1.64875	0.178905	2.643511
		Within	51238.81	232	220.8569			
	November	Interaction	2034.42	3	678.1399	1.279862	0.281991	2.643511
		Within	122926.1	232	529.8537			
	December	Interaction	2242.788	3	747.596	2.124972	0.097688	2.642213
		Within	84435.5	240	351.8146			

Different result is observed in the students' attendance of class X. Result shows the insignificant variation i.e, $P > 0.05$ in the students' attendance during 2018 to 2021 (Table 2). Students of class X are worried about their Madhyamik Examination. Due to delay or cancellation of exams, confusion arises to many students. Students also find it hard to ask questions and get the necessary help they need from teacher in virtual classroom. In the meantime, West Bengal Board of Secondary Education (WBBSE) sent instruction to all Government sponsored school to conduct

Test examination of class X in offline mode maintaining all COVID Protocol. President of WBBSE, declared that Board Examination will be conducted in offline mode as per schedule from March 7, maintaining COVID Protocol. As a result, students of class X attend the offline classes sincerely and regularly. Parents and students are also influenced by the teachers and class room had slowly started to return to rhythm.

Researches about students' perception towards teacher revealed that teachers' behaviour have positive

impact on learning and teachers can inspire or motivate the students for better learning⁴. In virtual mode the tutor and the tutee cooperatively learn using Zoom or Google meet programs at scheduled time through the synchronous form⁵. The investigation also manifest that both teachers and students compelled to accustom with online teaching and learning methods though facing difficulties in early stage. Classroom teaching is better than online class teaching as it provides more opportunity to direct interaction⁶. Learning may be achieved through mobile devices like phone in online mode without involvement between the teacher and the student. They are put in various places and times to learn various concepts of the subject in asynchronous form⁷. While the present circumstance is untypical, which is strenuous to forecast the consequence on the learner's capability and achievement, because of lack of pertinent information⁸. The investigation also manifest that both teachers and students compelled to accustom with online teaching and learning methods though facing difficulties in early stage⁹. Teachers accustomed in blackboard, chalk, books and classroom teaching are naive to this digital teaching. They also facing difficulties in understanding the technicalities of software and adopting the new methods and the concept of teaching. The students are having negative perception about online class as online classes are not as effective as face-face teaching, which is similar with the findings¹⁰. Teaching and learning through online stimulate learning behaviour of the students. It made students undergo new phase of learning and they also believed that learning became self-centred. Even though online classes have a positive impact on students learning, lots of students face difficulties to obtain the gadgets required for online classes. They also suffer a lot due to poor internet connections to attend the online classes. During Online session's students felt emotional detachment with teachers. The academic stress builds up among high school level students in post-pandemic period also indicated¹¹. It completely changed perception of students on academic life and educational environment. The Andhra Pradesh government signed a pact with Byju's for children to provide quality educational content for easier understanding and achieving better result¹². A Digital Education Initiative was taken by Chandigarh Govt. through Project Phoenix which covers the students from class one to eight and accessible via both Mobile App and Web Portal. Use of DIKSHA Portal, E-Pathshala, Kishore Manch etc. also help in learning process upto class twelve¹³. The Department of School Education, Government of West Bengal launched Online classroom education for all classes through School Education Department. Activity Tasks were

available in Bengali, English, Hindi, Urdu and Santahali. Banglar Shiksha Online include A Guideline Tab, questions and answers tab that lists down the most frequently asked questions with subsequent answers. A huge number of learning videos covering topics of first and second summative evaluation of all subjects for all classes had been uploaded. West Bengal's School Education department tied up with TV Channel ABP Ananda and Zee 24 Ghanta to hold live lectures for the students of Class X to XII on ABP Ananda and Class V to VIII on Zee 24 Ghanta to compensate the classes missed¹⁴.

Schools are also places where students get to socialize with their peers and take part in extracurricular activities like sports and arts. However, due to the closure of educational institutions, such gathering and fun activities have all disappeared. Not having physical social interactions, it affected the mental well-being of students. Many of them reported about the isolated and lonely feeling since they cannot meet their classmates and friends. Many students in West Bengal, India attend school regularly for food. The great midday meal scheme provides food and nutrition to many children who unable to bring their food from the home. Many students remained out of the habit of education for long, as they could not go to the schools to learn. The number of dropouts increased as many are getting engaged into work on child labours. Many students are doing jobs to support their families and a number of girls married off without completing their studies during the lockdown. The education of many female children affected due to the social and financial constraints. Not only the number of dropouts increased, new admission is also affected during COVID -19 pandemic situation. Family of many students returned to their native land after losing job during pandemic and not come back to this urban area. It is emerged out from the investigation that more communication required with students related to course and examination alterations. Most of students experienced loneliness, stress, anxiety, depression and feelings of detachment from school life. This study provides a qualitative exploration of the psychological, social and academic challenges faced by students during COVID-19 pandemic. As schools reopen, teachers have to provide formal and informal support, counselling services in an age-appropriate manner to students to ensure a smooth continuation of their education in a safe and healthy environment. Teachers may train and support students to provide peer mentoring to overcome the longer-term impact of mental ill-health caused by the pandemic. This proactive counselling and personalised approaches is crucial for positive student experiences and retention of students in school education system. This additional

support should be extended to students with increased staff support and recruitment to alleviate excessive workloads. In the new normal post-COVID-19 period, an amendment within the school education curriculum of study is crucial to achieve better academic environment.

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