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IMPACT OF PANDEMIC COVID-19 ON SECONDARY AND HIGHER SECONDARY LEVEL OF EDUCATION AT BALURGHAT BLOCK IN DAKSHIN DINAJPUR DISTRICT, WEST BENGAL, INDIA- A GEOGRAPHICAL APPRAISAL

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ABSTRACT
The COVID-19 pandemic has created the largest interruption and remarkable impact on school education systems in human history. It has affected a large number of children beyond states, class, caste, gender and region. It has created many probabilities to come out of the burdensome classroom teaching model to a new era of digital model. The main purpose of the study is to investigate the impact of COVID-19 pandemic and lockdown on Secondary and Higher Secondary Level of Education at Balurghat Block. This study integrates with primary data a questionnaire-based household survey of the concerned area compelled by the author himself. Through stratified random choice 180 students have been selected (99 are male and 81 are female) among them 85 (36 from class IX and 49 from class X) pursuing secondary level and 95 (28 from class XI and 67 from class XII) pursuing higher secondary level of education in Balurghat Block. The respondents were asked to rate all the indicators on a Likert scale to resolve the degree of impact each indicator has on the respondents' brain. In this particular study, descriptive research design was employed to gain enough insight for achievement of the desired objectives.

KEYWORDS
Corona Virus, Covid-19, Impact of Pandemic on Education, Balurghat, Dakshin Dinajpur

INTRODUCTION
COVID-19 infection was reported originally from Wuhan, China in late December 2019 (Rashid & Yadav, 2020). COVID-19 has been declared on 11 March 2020, as a global pandemic (Alsoud & Harasis, 2021). In India, the first affected case of Covid-19 was detected on 30 January 2020 in the state of Kerala and the affected had a travel history from Wuhan, China (Kushwaha & Tripathi, 2021). The side effects are fever, discomfort, hack, and loss of taste or smell which resolve in a couple of days in few cases; but may progress to respiratory distress and organ

ISSN: 2347-2979

failure (Garg et al., 2020). Indian government imposed nation wise lockdown on March 25th, 2020 to combat COVID-19 (Rawal, 2021). The COVID-19 pandemic has created the largest disruption of education systems in human history, affecting nearly 1.6 billion learners in more than 200 countries. As per the directives of the government, all school, colleges and universities are closed. Whole education system is disrupted by the pandemic COVID-19 (Tarkar, 2020). The sudden closure of campuses as a social distancing measure to prevent community transmission has shifted face-to-face classes to online learning systems (Rashid & Yadav, 2020). Closures of schools, institutions and other learning spaces have impacted more than 94% of the world's student population (Pokhrel & Chhetri, 2021). Various examinations which were to be held in schools, colleges, universities and different competitive exams have either been cancelled or postponed (Sinha, 2021). While the corona virus has had a global impact on education and the education-based sector, it is widely agreed that radical changes in the education sector are needed until the corona virus is eradicated (Jadhav et al., 2020). Due to this transformation in teaching methodology, students, teachers and parents are facing many problems (Tarkar, 2020). To help reduce the spread of corona virus, students from different parts of the world, including India, started reading and learning at home through interactive applications (Jadhav et al., 2020). The Covid-19 pandemic gave momentum to the digital teaching-learning mode with a transformation from chalkboards to Google Meet, Zoom and WebEx, etc. (Maity et al., 2020) and other virtual options. Different countries are taking various strategies and steps to mitigate the adverse effects of COVID-19 in education (Emon et al., 2020). There have been a couple of remarkable innovations in the responses of educationists to the current crisis. However, relying only on online education approaches will imply reaching only students from well-off families, as many educationists are concerned (Emon et al., 2020). Though Indian government supports digital revolution of recently drafted new education policy, but there are many questions of succeeding this policy in a diverse and multilingual country because e-learning platforms cannot replicate various contexts and dialects with different lived experiences that are easily possible in physical classrooms (Sarkar & Das, 2020). The substitute for classroom teaching has been emergency online teaching, which encountered various obstacles such as limited technical knowledge and tutoring capabilities, inadequate and weak infrastructure (Noor et al., 2020), poor network connectivity and cyber security etc. (Sahoo et al., 2021), computers and internet (Tadesse & Muluye, 2020).

LITERATURE REVIEW

COVID-19 pandemic has created a phenomenal change in educational teaching-learning framework globally. School students need to deal with various sorts of ecological, electronic, and mental battles because of the COVID-19 pandemic (Garg et al., 2020). The COVID-19 pandemic has imposed constraints on learning and teaching (Patston et al., 2021). The closure of schools

ISSN: 2347-2979

has direct effect on the structure of schooling and learning process, including teaching and assessment methodologies (Sarkar & Das, 2020). Students from remote and disadvantaged areas primarily faced enormous challenges such as technological accessibility, poor internet connectivity, and harsh study environments (Alsoud & Harasis, 2021). The inequalities between private schools and government schools are sharpened by the move to online education (Jain et al., 2021). Distance learning is a solution to continue the education system, but it is difficult due to lack of the necessary Information and Communication Technology (ICT) infrastructures, computers, radio, and television to provide distance learning (Tadesse & Muluye, 2020). The pandemic has affected the students, teachers and all other school authorities due to this rapid transition from offline to online mode (Sinha, 2021). The areas are important for teacher and student satisfaction with online classes, these areas are: quality and timely interaction between student and teacher, technical support availability, structured online class modules, and modifications to accommodate conduction of practical classes (Nambiar, 2020). This pandemic changed the extremely conventional, chalk–talk education model to new ambitious web-based innovation and technology (Garg et al., 2020). The traditional method of teaching has been replaced by the online teaching (Tarkar, 2020). The students' and teachers' perspective should be an integral part of building online teaching methodology as well as learning (Nambiar, 2020). The global pandemic opened up opportunities to the country to upgrade its educational mode of delivery and transfer its attention to emerging technologies (Toquero, 2020). The traditional education system to the educational technologies model in which teaching and assessments are conducted online (Rawal, 2021). The need to have a combined approach to online learning with increase in investment on the upgrading of the technology infrastructure of educational institutions (Rawal, 2021). There is a paradigm shift in the way educators deliver quality education—through various online platforms (Pokhrel & Chhetri, 2021). Transitioning from traditional face-to-face learning to online learning can be an entirely different experience for the learners and the educators, which they must adapt to with little or no other alternatives available (Pokhrel & Chhetri, 2021). For both students and teachers, this is a new era of the education (Tarkar, 2020). In the post-pandemic situation, the use of eLearning and virtual education may become an integral part of the higher education system (Kushwaha & Tripathi, 2021; Rashid & Yadav, 2020). Only handful private institutions have adopted this online teaching method. On the other hand, government and low-income oriented private schools cannot adopt this e-learning process properly (Sarkar & Das, 2020). There some needs for more training of educators in digital technology to adapt the rapidly changing education (Kushwaha & Tripathi, 2021). To utilizing eLearning tools and platforms for effective student engagement which may have limitations of accessibility and affordability for many students (Rashid & Yadav, 2020). E-learning is the step forward to begin with, which also have significant training and adoption issues (Sahoo et al., 2021). Policy makers are facing many problems in making the policy

ISSN: 2347-2979

(Tarkar, 2020). Initiatives of Govt. of India on education during Covid-19 for Secondary education like Diksha portal, e-Pathshala, National Repository of Open Educational Resources (NROER), for Higher Education like Swayam, Swayam Prabha, e-PG Pathshala, etc. (Jena, 2020). Using online or satellite television platforms to deliver education during the pandemic, which is not enough to meet the contrasting levels (Emon et al., 2020). The applications frequently used by teachers for online teaching Google meet, Skype, Cisco Webex, Google Classroom, Zoom, google duo, YouTube, Moodle, Jitsi, Microsoft team, WhatsApp, Lark and Avaya Space (Nambiar, 2020). The disadvantages of online classes high-cost Internet packages, uncooperative learners, low attendance of learners, teachers' technology confidence, limited availability of educational resources, lack of ICT knowledge, and poor network infrastructure (Noor et al., 2020). The advantages such as ease of conducting online courses, flexibility in the work schedule, adaptability to broad learning styles, a variety of tools available at hand, ease in monitoring, and documenting teaching activities (Ionescu et al., 2020). The face- to- face learning was perceived more positively than online learning in term of social presence, interaction, satisfaction and overall quality (Nambiar, 2020). Further investments and contingency plans are needed to develop a resilient education system that supports electronic and distance learning (Alsoud & Harasis, 2021). During the COVID-19 pandemic, the conventional knowledge from the area of educational planning for formal education may not be sufficient, we tried to formulate a proposal, a model for managing emergencies and restoring educational function (MEET Model for Educational Emergencies Treatment) (Karalis, 2020). Mitigation Strategies to Stem the Rising Learning Crisis like Distance learning through low-cost technology, Empowering and supporting parents, Access to nutritious meals and vital services, reaching the most vulnerable (Upoalkpajor & Upoalkpajor, 2020). From the teacher–student–parent perspective, e-learning is an effective sustainable learning solution in current and future conditions (Ionescu et al., 2020).

STUDY AREA

The Study areas were randomly distributed across the whole Balurghat block. Balurghat is a community development block that forms an administrative division in Balurghat subdivision and district headquarter of Dakshin Dinajpur district in the Indian state of West Bengal has been selected for the present study. Balurghat is located at 25°13′N 88°46′E. Balurghat block is physiographically a part of the Barind Tract. This block is bounded by Kumarganj CD Block and Birampur Upazila in Dinajpur District in Bangladesh, on the north Hili CD Block and Joypurhat Sadar Upazila in Joypurhat District in Bangladesh, on the east Dhamoirhat Upazila in Naogaon District in Bangladesh on the south and Tapan CD Block on the west. The area is generally flat and slightly undulating. It has an average elevation of 25 metres (82 feet) above mean sea level. Balurghat have alluvial soil. The main river

ISSN: 2347-2979

Atreyee comes from Bangladesh, flows through Kumarganj and Balurghat CD Blocks and goes back to Bangladesh flowing from north to south, overflow during the monsoons and cause floods. Balurghat CD Block has an area of 369.39 km^2. It has 1 panchayat samity, 11 gram panchayats, 174 gram sansads (village councils), 309 mouzas and 294 inhabited villages. As per 2011 Census Balurghat CD Block had a total population of 250,764 of which 234,139 were rural and 16,625 were urban. Balurghat block has a population density of 679 inhabitants per km^2. The Average Sex Ratio of Balurghat Block is 940. There were 129,254 (52%) males and 121,590 (48%) females. Population below 6 years was 24,485. Scheduled Castes numbered 73,716 (29.40%) and Scheduled Tribes numbered 66,225 (26.41%). The total literacy rate of Balurghat Block is 73.88%**.** Average literacy rate of Balurghat Block in 2011 were 73.88% in which, male and female literacy were 80.18% and 67.15% respectively. Census towns in Balurghat CD Block were Par Patiram, Dakra and Chak Bhrigu. Decadal growth of population in Balurghat CD Block for the period 2001-2011 was 8.82%. As per the 2011 census, the total number of literates in Balurghat CD Block was 167,353 (73.96% of the population over 6 years) out of which males numbered 93,736 (80.25% of the male population over 6 years) and females numbered 73,617 (67.24% of the female population over 6 years). The gender disparity (the difference between female and male literacy rates) was 13.01%. In Balurghat CD Block in 2011, amongst the class of total workers, cultivators numbered 29,864 and formed 26.29%, agricultural labourers numbered 43,309 and formed 38.20%, household industry workers numbered 6,010 and formed 5.29% and other workers numbered 34,337 and formed 30.22%.Total workers numbered 113,610 and formed 45.64% of the total population, and non-workers numbered 135,291 and formed 54.36% of the population. In 2013-14, Balurghat CD Block had 195 primary schools with 10,790 students, 1 middle school with 75 students, 14 high schools with 23,315 students and 17 higher secondary schools with 18,101 students. In Balurghat CD Block, amongst the 294 inhabited villages, 66 villages do not have a school, 35 villages have more than 1 primary school, 35 villages have at least 1 primary and 1 middle school and 31 villages have at least 1 middle and 1 secondary school.

RESEARCH METHODOLOGY

The ongoing pandemic has twisted the teaching and learning framework worldwide. Including financial and social impacts, there are various constraints in adopting the new education framework by students and policymakers of the academic institutions (Garg et al., 2020).

Research Design

The research design plays an important role and helps the researcher to answer distinct research questions and acts as a focus for the full research. The researchers used descriptive research survey design in accentuating this research work. The choice of this research design was treated

ISSN: 2347-2979

relevant because of its appliances of identifying attributes of a group of individuals from a broad population. The design was applicable for the study as the study desired the impact of COVID19 on education at Balurghat block. The researcher has possessed data in quantitatively and also interprets that. The entire study is entirely based on primary data drawing on the impact of COVID-19 pandemic on education system. The primary data was possessed through stratified random sampling using a schedule questionnaire and was possessed by maintaining social distancing. The respondents are advised to give their feeling for each statement in terms of the Likert scale. Data were collected by surveying 180 school students. Total response from 180 students was tabulated and analyzed from a different viewpoint during this study. A few charts have been prepared with respect to the data to interpret and explore the results. Non parametric test, such as chi-square test have been taken into consideration for this study.

Population of the Study

The population of the study comprised of all Secondary and Higher Secondary students at Balurghat Block in the Dakshin Dinajpur district of West Bengal.

Sample of the Study

To achieve the objectives, stratified random sampling was applied. The stratification was done based on those students studying in classes IX, X, XI and XII. Through stratified random selection 180 students have been selected (99 are male and 81 are female) among them 85 (36 from class IX and 49 from class X) pursuing secondary level and 95 (28 from class XI and 67 from class XII) pursuing higher secondary level of education in Balurghat Block. The data were obtained only from those respondents who indicated they are currently Secondary and Higher secondary students.

Sampling Technique

The technique of stratified random sampling was engaged for selecting the sample. The researcher at the beginning chose a variety Secondary and Higher Secondary schools in the Balurghat block of Dakshin Dinajpur district. Then, in order to get authentic, absolute, and open-minded data, the researcher select 180 students using stratified random sampling from Secondary and Higher Secondary schools.

Data Collection

This study inspects the pandemic's effect on 180 students pursuing education in secondary and higher secondary levels at Balurghat block through an offline survey using questionnaire schedule comprised of structured and semi-structured questions.

ISSN: 2347-2979

Instrument for Data Collection

The major research instrument used is the questionnaire schedule. The questionnaire schedule comprised of structured and semi-structured questions and designed to obtain ample and pertinent information from the respondents. The primary data composed information extracted from the questionnaire schedule in which the respondents were at the beginning asked to rank their feeling in the order of their importance. Following this, the respondents were asked to rate all the indicators on a Likert scale to determine the degree of impact each indicator has on the respondents' minds (Sinha, 2021).

AIM

The impact of the current COVID-19 outbreak on the education system of Balurghat block in the Dakshin Dinajpur district and its possible solution is the aim of the present study.

OBJECTIVES

The overall objective of this study is to analyze the Impact of COVID-19 outbreak and lockdown on Secondary and Higher Secondary Level of Education at Balurghat block. The researcher has set the following objectives for the study:

i. To know how the education system is facing the Impact of COVID-19, and highlighting the role played by teachers and students through online education.

ii. To know how the positive impact helpful to student and school teachers in the scenario of the online learning.

iii. To enlist some negative impacts of COVID-19 on students for their smooth education and to put some effective suggestions for continuing education during the pandemic situation.

iv. To know due to Covid-19 pandemic the online learning is now integral part of education system or not.

Research Questions

- How does this covid-19 pandemic affect your study?
- Do you able to study properly in systematic way in present covid-19 pandemic situation as previous?
- Do you think covid-19 is going to change the education system?
- Do you think that you have lost the ability to study in this situation?
- Do you think online is one of the most important methods in your education?

ISSN: 2347-2979

Research Hypotheses

For the fruitful accomplishment of the study, based on the review of literature the researcher formulated the following research hypotheses:

H0: There exist no significant impacts of COVID-19 on education.

H1: There exist significant impacts of COVID-19 on education.

H02: There exist no significant positive impacts of COVID-19 on education.

H2: There exist significant positive impacts of COVID-19 on education.

H03: There exist no significant negative impacts of COVID-19 on education.

H3: There exist significant negative impacts of COVID-19 on education.

H04. There exists no significant relationship between COVID-19 pandemic and the online learning is an integral part of education system.

H4. There exists significant relationship between COVID-19 pandemic and the online learning is an integral part of education system.

Purpose of the Study

All systems have strengths and weaknesses. Maximizing strengths and minimizing weaknesses in order not to miss the opportunity to move forward should be the goal (Rawal, 2021). The COVID-19 pandemic has created a phenomenal change in educational teaching-learning framework globally. During the COVID-19 pandemic, educational institutions were forced to shut down, causing massive disruption of the education system. The main purpose of the study is to analyze the impact of COVID-19 outbreak and lockdown on Secondary and Higher Secondary Level of Education at Balurghat block.

Rationale of the Study

According to a survey of relevant literature, several researchers have undertaken various studies on the impact of COVID-19 on Education sector in pandemic situations (Das & Sarkar, 2022). However, just a few research on the impact of COVID-19 on Secondary and Higher Secondary Level of Education in pandemics have been carried out in India, and these studies only used a limited number of samples using online survey. With these considerations in mind, the researcher was fascinated and chose to investigate the impact of covid-19 on Secondary and Higher Secondary Level of Education at Balurghat block in Dakshin Dinajpur district of West Bengal using offline survey.

Statement of the Problem

The flare-up of the Covid-19 infection ailment has expanded strain and nervousness around the world (Sahoo et al., 2021) and Indian are not an exception. The Covid-19 Pandemic has broken the world's educational system across states, class, caste, gender and region. The outbreak of the

ISSN: 2347-2979

corona virus disease has increased tension and anxiety among the Indian students. Schools need to immediately inform their emergency readiness strategies by developing contingency strategies that not only address school-based prevention and safety actions for epidemics, but also recognize ways to carry on supporting and educating teachers and students if schools remain closed. In light of this, the researcher designed this study to examine the impact of COVID-19 on Secondary and Higher Secondary Level of Education. This research examines how the COVID-19 pandemic impacted the Secondary and Higher Secondary Level of Education at Balurghat block in Dakshin Dinajpur District of West Bengal. In order to mirror this, the researchers gave the current studied title "Impact of Pandemic Covid-19 on Secondary and Higher Secondary Level of Education at Balurghat Block in Dakshin Dinajpur District, West Bengal- A Geographical Appraisal"

Research Gap

Various studies have been organized to identify the numerous factors that have an impact on the education sector in pandemic situation all over the world. However, no study has made an effort to look at the impact of COVID-19 on Secondary and Higher Secondary Level of Education at Balurghat block in Dakshin Dinajpur District of West Bengal under a pandemic scenario. As a result, there is a research gap in this area. In order to determine the variables that have an impact on Secondary and Higher Secondary level of education, the researcher used the Schedule Questionnaire to identify the various impacts. As a consequence, this study's goals, samples, and methods will not be the same to previous studies.

RESULTS AND DISCUSSION

In order to control the dissemination of the corona virus, Indian governments started the closure of schools and colleges across the country. It was somewhere announced in the second week of March as a temporary measure to avoid the large assemble. Initially, for a month closure of schools was announced by the government but gradually the time of closure was extended and it is uncertain when they will reopen. In order to stop the outbreak of COVID-19, no immediate solution is found out. In India, the closure of school and university will not only have a short-term impact on the continuity of learning of young learners but it will have a large effect on the economic growth of the country as well as having large effect on the society (Tarkar, 2020). The social aspect of school, college and university life has been drastically affected by the Covid-19 pandemic. The pandemic has changed the way students learn, forcing them to adjust and adapt to studying in isolation and learning online. School attendance is one of the best public tools available to raise a child's skills, awareness and ability. However, this long period of school closure will have significant consequences on skill acquisition and growth of school children (Agbele & Oyelade, 2020). The present study investigates the COVID-19 impact on 180 students

Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

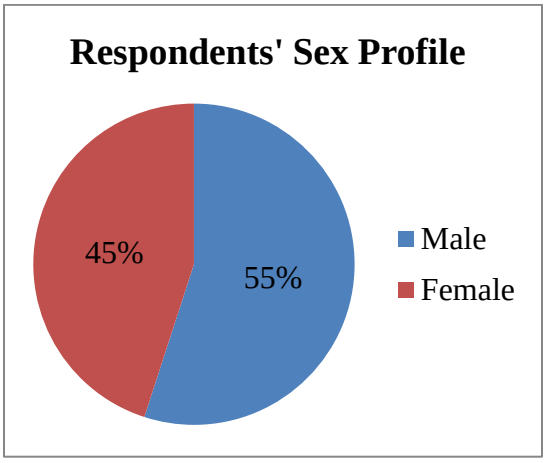
pursuing secondary and higher secondary levels at Balurghat block. The data collected from the respondents were analyzed in tabular form with simple percentage for easy understanding.

Table 1 Respondents' Sex and Qualification Profile

Total	Sex		Qualification			
180	Male	Female	Secondary		Higher Secondary	
			IX	X	XI	XII
Total No.	99	81	36	49	28	67
% Value	55	45	20	27.22	15.55	37.22

Source: Authors' analysis.

From the Table 1 it shows that through stratified random selection 180 students have been selected 55% of the respondents were male while 45% of the respondents were female. It is also shows that 47.22 % (20% from class IX and 27.22% from class X) pursuing secondary level and 52.78% (15.55% from class XI and 37.22% from class XII) pursuing higher secondary level of education at Balurghat block.



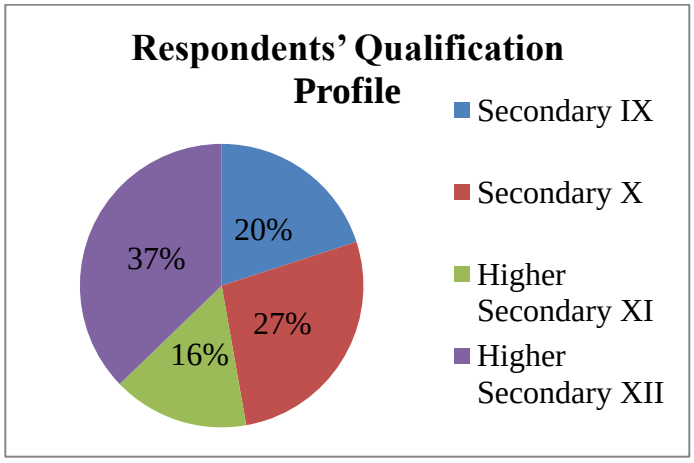


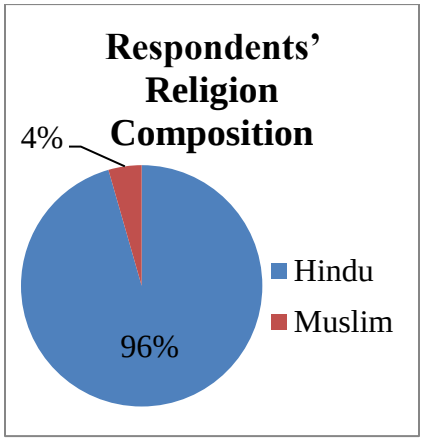
Table 2 Respondents' Religion Composition, Caste Structure and Age Group Profile

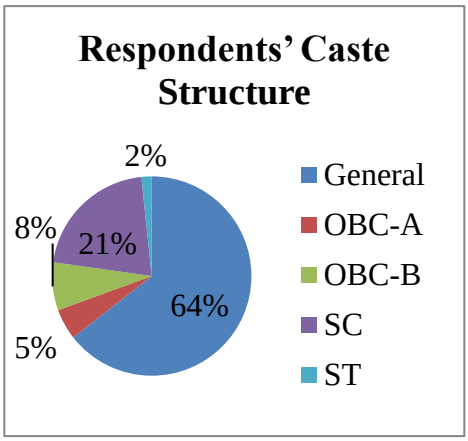
Total	Religion Composition		Caste Structure					Age Group	
180	Hindu	Muslim	General	OBC-A	OBC-B	SC	ST	15-17 Years	17-19 Years
Total No.	172	8	116	9	14	38	3	106	74
% Value	95.55	4.45	64.44	5	7.77	21.11	1.67	58.89	41.11

Source: Authors' analysis.

Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

The Table 2 shown that 172 respondents which represents 95.55% of the respondents are Hindu and 8 respondents which represents 4.45% are Muslim by religion. 116 respondents which represents 64.44% of the respondents are general students, 9 respondents which represents 5% of the respondents are OBC-A students, 14 respondents which represents 7.77% of the respondents are OBC-B students, 38 respondents which represents 21.11% of the respondents are SC students while 3 respondents which represent 1.67% of the respondents are ST students by their caste structure. With regard to the age of the respondents, 58.89% were between 15 to 17 years, 41.11% were between 17 and 19 years.





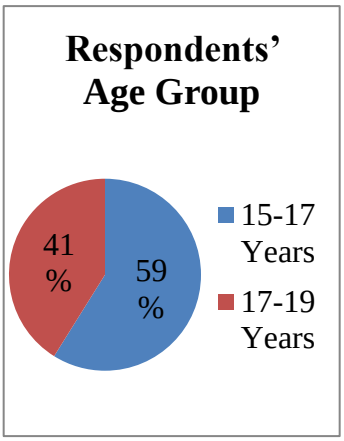


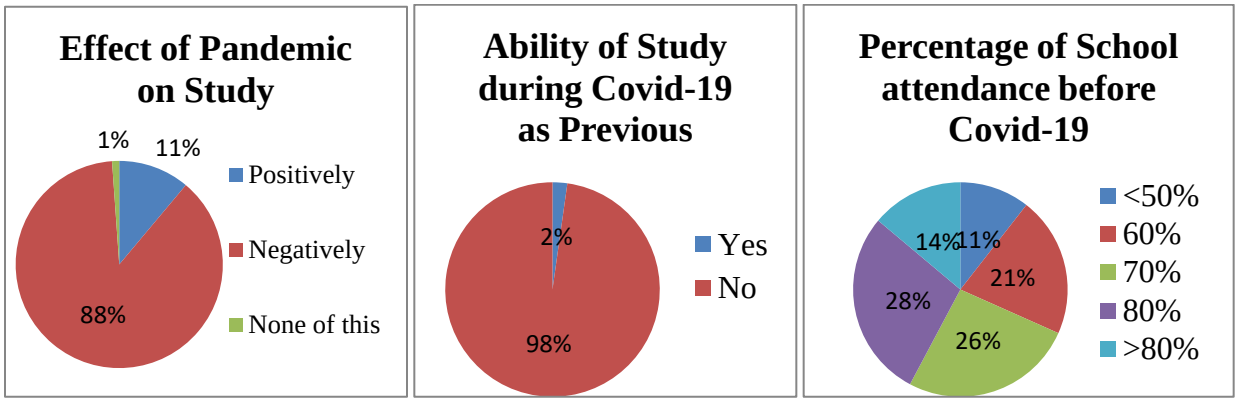
Table 3 Effect of Pandemic on Study, Ability of Study during Covid-19 as Previous, Percentage of School attendance before Covid-19

How does this covid-19 pandemic effect your study			Do you able to study properly in systematic way in present covid-19 pandemic situation as previous?		What percentage of school attendance did you have before covid-19 pandemic situation				
Positively	Negatively	None of this	Y	N	<50%	60%	70%	80%	>80%
20	158	2	4	176	19	38	47	51	25
11.11%	87.78%	1.11 %	2.22 %	97.78 %	10.56 %	21.11 %	26.11 %	28.33 %	13.89 %

Source: Authors' analysis.

Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

It could be observed from Table 3 that the respondents were asked how does this pandemic effect their study, to which 11.11% answered positively, 87.78% answered negatively, 2% answered none of this. Only 2.22% respondents answered they are able to study properly in systematic way in present covid-19 pandemic situation as previous but majority of the respondents about 97.78% are not able to study properly in systematic way in present covid-19 pandemic situation as previous. Before covid-19 pandemic situation 10.56% respondents answered their attendance in school <50%, 21.11% respondents answered their attendance in school 60%, 26.11% respondents answered their attendance in school 70%, 28.33% respondents answered their attendance in school 80%, 13.89% respondents answered their attendance in school >80% respectively.



Test of hypotheses

Table 3.1 There exist any significant impacts of COVID-19 on education

Responses	Samples (O)	Expected (E)	Residuals (O-E)	(O-E)^2/E
Positively	20	60	-40	26.67
Negatively	158	60	98	160.07
None of These	2	60	-58	56.07
Total	180		0	242.80
Df 2	Asymp. Sig. .000		Chi-Square value 242.80	

Source: Authors' analysis.

Decision rule: The researcher therefore rejects the null hypothesis, "there exist no significant impacts of COVID-19 on education" as the calculated value of 242.80 is greater than the critical value of 5.991. Therefore, the alternate hypothesis is accepted that there exist significant impacts of COVID-19 on education**.**

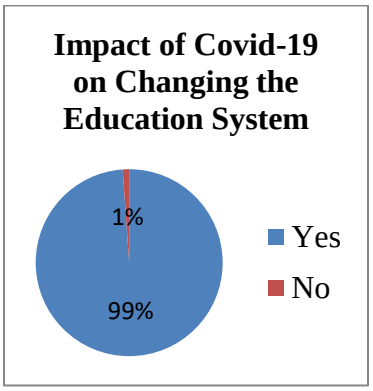
Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

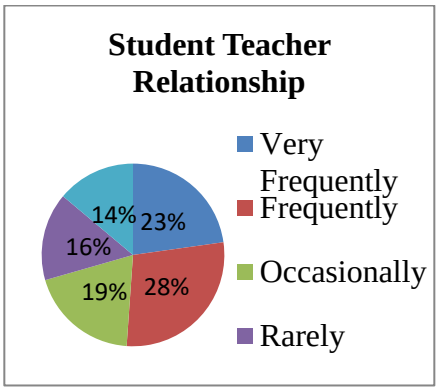
Table 4 Impact of Covid-19 on Changing the Education System, Student Teacher Relationship, Student Perception about Covid-19 is a Destructive Killer Disease

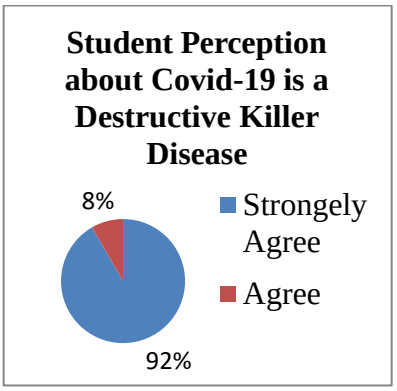
Do you think covid-19 is going to change the education system?		How do you perceive the relationship with your school teacher during this period of COVID -19 pandemic					Do you think that covid-19 is a destructive killer disease?				
Y	N	Very Frequently	Frequently	occasionally	rarely	never	Strongely agree	Agree	Undecided	Strongly disagree	Disagree
178	2	41	51	35	28	25	165	15	0	0	0
98.89%	1.11%	22.78%	28.33%	19.44%	15.56%	13.89%	91.67%	8.33%			

Source: Authors' analysis.

From Table 4 shows that the 98.89% respondents says that Covid-19 pandemic change the education system and only 1.11% says that Covid-19 pandemic does not change the education system. The respondents were asked about the relationship with their school teacher during this period of COVID -19 pandemic 22.78% of the students reported very frequently, 28.33% of the students reported frequently, 19.44% of the students reported occasionally, 15.56% of the students reported rarely and 13.89% of the students reported never. When the respondents were asked do you think that covid-19 is a destructive killer disease 91.67% respondents strongly agree only 8.33% respondents reported agree but no one of them reported undecided, strongly disagree and disagree.







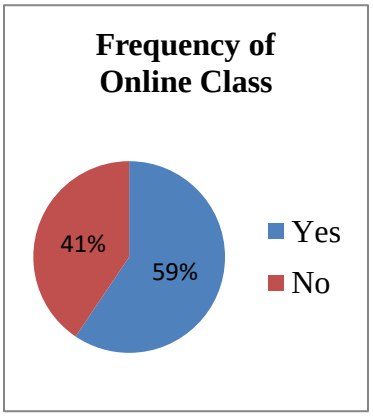
Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

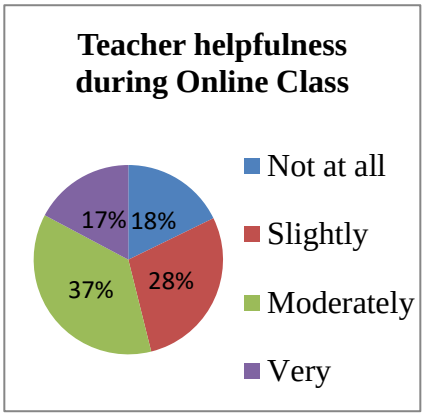
Table 5 Frequency of Online Class, Teacher helpfulness during Online Class, Use of Electronic Gadgets during Online Class

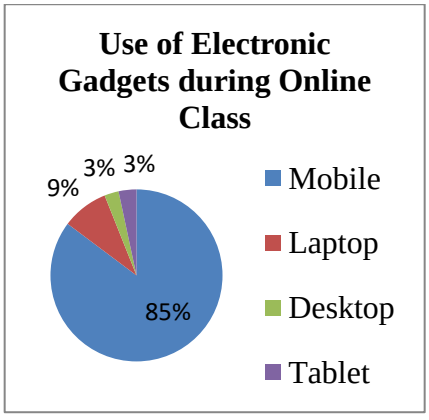
Does your school conduct online classes?		How helpful are teacher while studying online?				What electronic gadget or device do you use for your study?			
Y	N	Not at all helpful	Slightly helpful	Moderately helpful	Very helpful	Mobile	Laptop	Desktop	Tablet
107	73	32	51	66	31	127	13	4	5
59.44 %	40.56 %	17.78 %	28.33 %	36.67%	17.22 %	70.56 %	7.22%	2.22%	2.78 %

Source: Authors' analysis.

The Table 5 shown that during Covid-19 pandemic related school closure 59.44% respondents say that their school conducts online classes for the betterment of the students in this pandemic situation and 40.56% reported that their school does not conduct online classes. When the respondents were asked about how helpful their teacher while online class conducted their teacher 17.78% of the students reported not at all helpful, 28.33% of the students reported slightly helpful, 36.67% of the students reported moderately helpful, 17.22% of the students reported very helpful. During online class students uses variety of electronic gadgets or devices like 70.56% respondents uses mobile phone, 7.22% respondents uses laptop, 2.22% respondents uses desktop, 2.78% respondents reported they uses tablet and 17.22% respondents does not join online class due to lack of electronic gadgets.







ISSN: 2347-2979

Table 6 Time Spend for Online Class, Regularity of Online Class, Satisfaction Level in Online Class, Status of Mock test and Exam in Online Mode

How much time do you spend each day on an average on online classes?				Does your school take online classes regularly?		How much do you get satisfied with your study via online mode in present situation?				Does your teacher take exam or mock test in online mode?	
<1h	1-2h	2-3h	>3h	Y	N	<40 %	40-70%	70-100%	dis-satisfied	Y	N
41	65	39	4	43	137	17	75	31	26	57	123
22.78 %	36.11 %	21.67 %	2.22 %	23.89 %	76.11 %	9.44 %	41.67 %	17.22 %	14.44 %	31.67 %	68.33 %

Source: Authors' analysis.

As can be seen from Table 6 that how much time students spend each day on an average for online class, 22.78% students reported they spend <1 hour, 36.11% students reported they spend 1-2 hour, 21.67% students reported they spend 2-3 hour while only 2.22% students reported they spend >3 hour and rest of the respondents 17.22% does not take part in the online class. Regarding the regularity of online classes during closure of school in the pandemic Covid-19 situation 23.89% respondents reported 'yes' and majority of the respondents 76.11% reported 'no'. When the respondents were asked how much you satisfied with your study via online mode in present pandemic situation 9.44% of the students reported <40% satisfied, 41.67% of the students reported 40-70% satisfied, 17.22% of the students reported 70-100% satisfied and 14.44% of the students reported dissatisfied. However, when the survey participants were asked does your teacher take exam or mock test in online mode some students about 31.67% say 'yes' and majority of the students 68.33% say 'no'.

Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

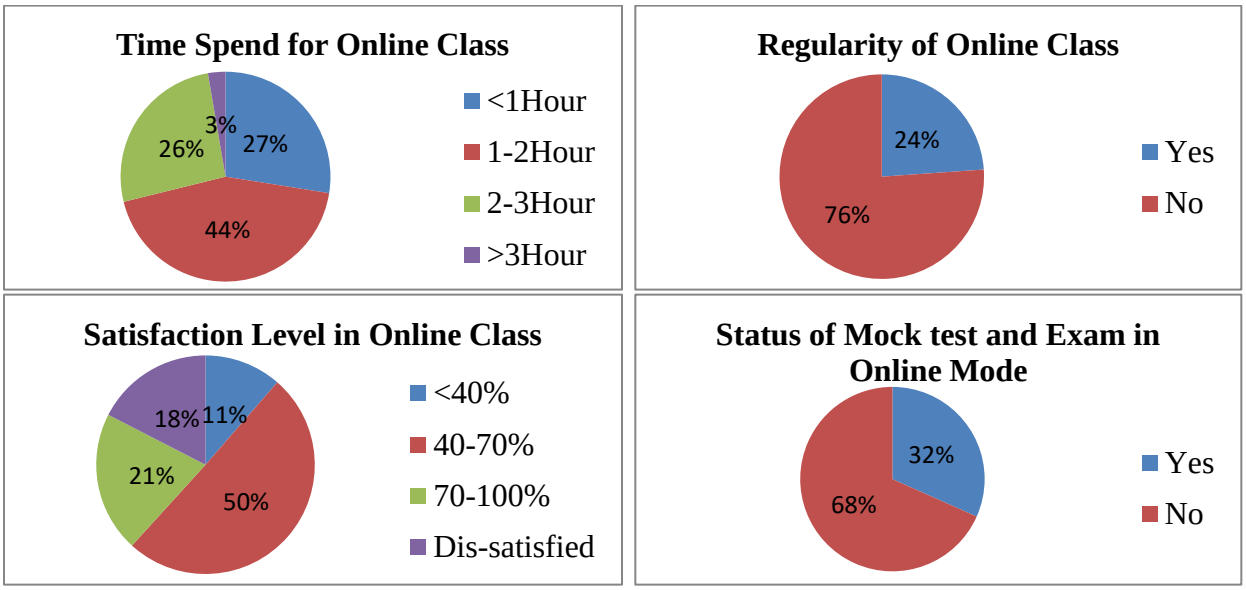


Table7 Understanding issues related to Practical Class, Need of Practical Class and Chance of Using Laboratory

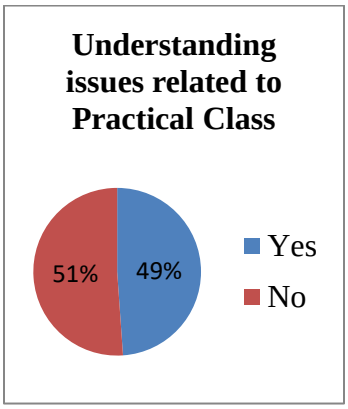
Do you understand the practical topic related issues of your syllabus?		Do you think that you need to practical classes while studying online?				Did you get a chance for using laboratory in higher secondary level?				
Y	N	Very Important	Important	Moderately important	Unimportant	Very Frequently	Frequently	Occasionally	Rarely	Never
88	92	47	35	36	62	9	40	20	26	85
48.89%	51.11%	26.11%	19.44%	20%	34.44%	5%	22.22%	11.11%	14.44%	47.22%

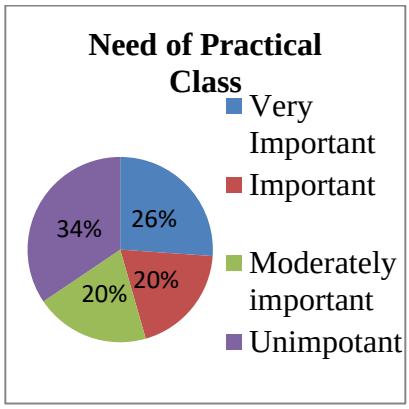
Source: Authors' analysis.

In Table 7 it is observed that when asked about do you understand the practical topic related issues of your syllabus 88 of the surveyed students (48.89%) answered 'yes' and 92 of the surveyed students (51.11%) answered 'no'. The study had a question regarding the need of practical classes while studying online the results showed that 26.11% respondents reported very important, 19.44% respondents reported important, 20% respondents reported moderately important and 34.44% respondents reported unimportant. In terms of the getting chance for using

Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

laboratory in higher secondary level, results showed that 5% students used very frequently, 22.22% students used frequently, 11.11% students used occasionally, 14.44% students used rarely and majority of the students about 47.22% never used laboratory.





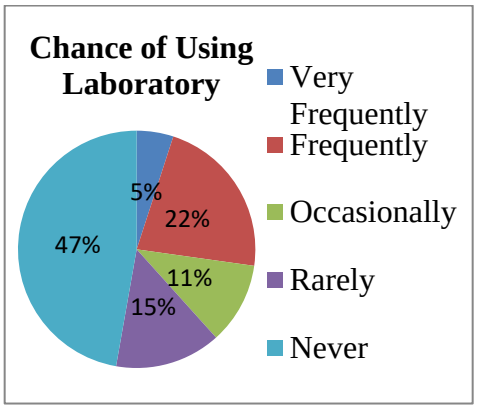


Table 8 Used Platforms for Learning, Barriers of Using E-learning tools, Family Financial Condition for Affording Internet Connection and Availability of Internet Connection at Home

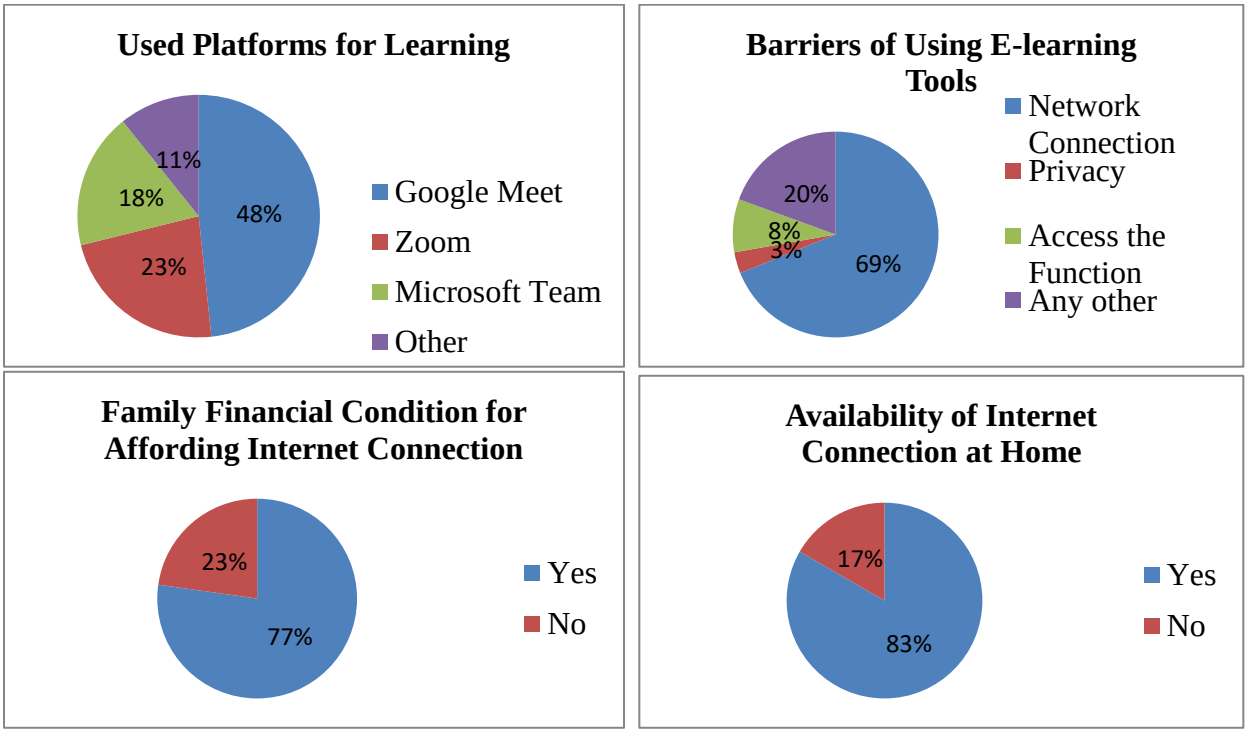
What type of e-learning platforms used by you when performing study in online mode?				While using e-learning tools what are the barriers you find?				Do you or your family have the financial condition to afford internet connection facility		Do you have internet connection facility at your home?	
Google Meet	Zoom	Micro-soft Team	Other	Network connection	Privacy	Access the function	Any other	Y	N	Y	N
72	34	27	16	124	6	15	35	139	41	150	30
40%	18.89 %	15 %	8.89 %	68.89%	3.33 %	8.33 %	19.44 %	77.22 %	22.78 %	83.33 %	16.67 %

Source: Authors' analysis.

The study had a question regarding the platforms used for online learning during the pandemic. The results showed that the two most common applications used by the students were Google Meet (40%) and Zoom (18.89%), followed by Microsoft Team (15%), and other applications (8.89%) like Cisco Webex, Whatsapp, YouTube etc.. When asked while using e-learning tools

Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

what are the barriers you find 68.89% of students responded that facing network connection problem, 3.33% of students responded that facing privacy problem, 8.33% of students responded that facing access the function and 19.44% of students responded that they facing any other problems. During the lockdown, students were suffering from several challenges, mainly the feel of anxieties, not having a device to attend the online classes, not having a separate room to study at home, and Internet connectivity issues. It is expected that students living in rural and remote areas might suffer from poor Internet connectivity. However, having issues in the ability to have a device and a separate room for studying may indicate the poor economic conditions the students have. However, when the survey participants were asked that your family have the financial condition to afford internet connection facility, 72.22% of students responded with 'yes' and 22.78% of students responded with 'No'. In terms of the internet connection facility at home 83.33% of the surveyed students responded with 'yes' and 16.67% of students responded with 'No'.



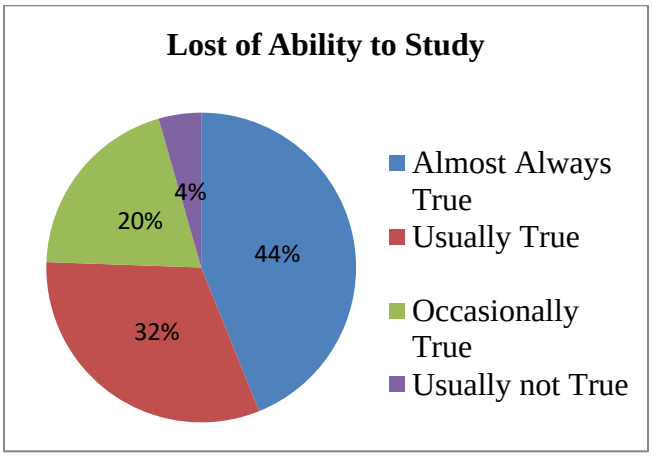
Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

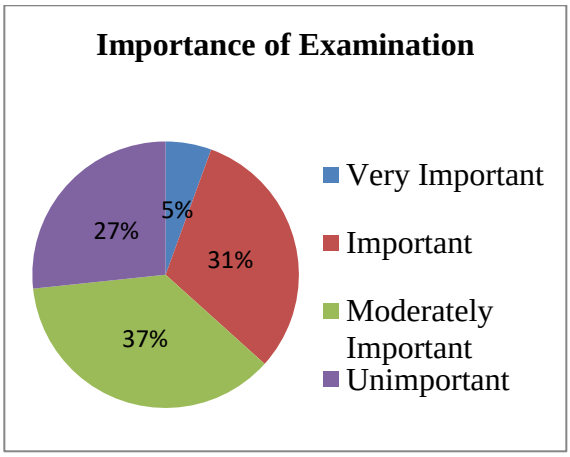
Table 9 Lost of Ability to Study, Importance of Examination

Do you think that you have lost the ability to study in this situation?				Do you think it's important to take your examination in this pandemic?			
Almost always true	Usually true	occasionally true	Usually not true	Very important	Important	Moderately important	Unimportant
79	57	36	8	10	56	66	48
43.89%	31.67%	20%	4.44%	5.50%	31.11%	36.66%	26.66%

Source: Authors' analysis.

Looking at Table 9, it can be seen that when asked about do you think that you have lost the ability to study in this pandemic situation 79 of the surveyed students (43.89%) answered almost always true, 57 of the surveyed students (31.67%) answered usually true, 36 of the surveyed students (20%) answered occasionally true and 8 of the surveyed students (4.44%) answered usually not true. When asked about the importance to take examination in this pandemic situation, majority 5.50% of the sample reported very important. 31.11% reported important, 36.66% reported moderately important and 26.66% reported unimportant.





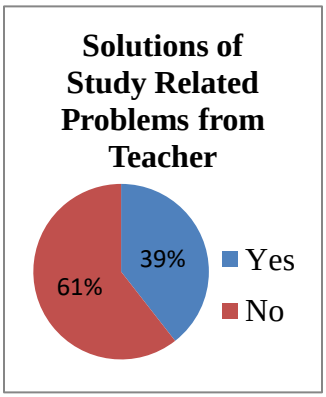
Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

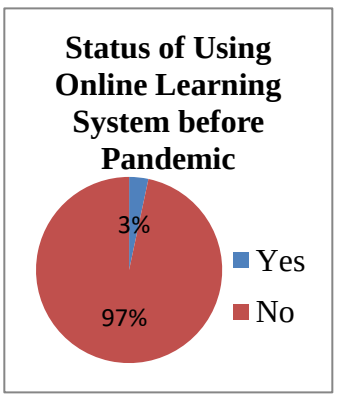
Table 10 Solutions of Study Related problems from Teacher, Status of Using Online Learning System before Pandemic and Status of Self Improvement

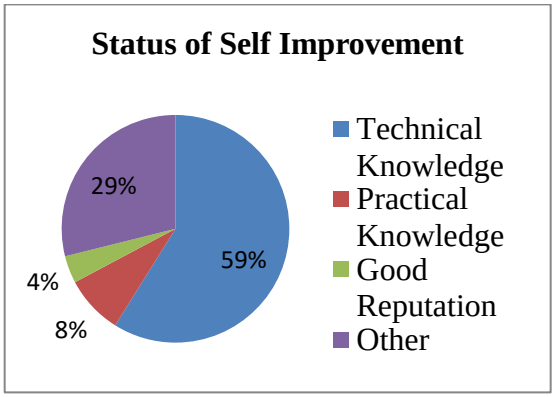
Do you get all solutions of your study related problem from your teachers satisfactorily in present pandemic situation		Are you using online learning system before this pandemic situation?		What improvement do you find in yourself during this pandemic situation			
Y	N	Y	N	Technical Knowledge	Practical Knowledge	Good reputation	other
71	109	6	174	106	15	7	52
39.44%	60.56%	3.33%	96.67%	58.89%	8.33%	3.89%	28.89%

Source: Authors' analysis.

From Table 10 it is clearly observed that when the survey participants were asked do you get all solutions of your study related problem from your teachers satisfactorily in present pandemic situation about 39.44% say 'yes' and 60.56% say 'no'. However, when the respondents were asked are you using online learning system before this pandemic situation only 6 students (3.33%) have attended online classes before the COVID-19 pandemic, this shows that the majority of the students (96.67%) have no experience of online classes since they have never attended online classes before the pandemic. Regarding the survey question what improvement do you find in yourself during this pandemic situation 58.89% respondents reported technical knowledge, 8.33% reported practical knowledge, 3.89% reported good reputation and 28.89% answered other improvement. Some of them reported that online classes were difficult to understand and follow especially when it came to practical subjects, lack of concept clarity, no structured format or time scheduled followed.







ISSN: 2347-2979

Table 11 Lockdown affects on Mental Health, Enjoyment level in Online Class and Importance of Online method in Education.

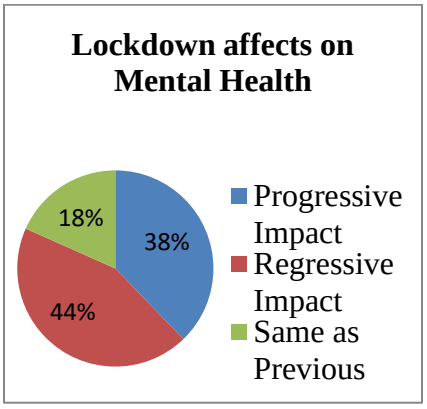
How does this present lockdown situation affect your mental health			Do you enjoy online classes?				Do you think online is one of the important methods in your education	
progressive impact	Regressive impact	same as previous	yes, absolutely	yes, but i would like a change a few thing	no, there are few challenges	not at all	Y	N
68	79	33	39	66	25	19	116	64
37.78%	43.89%	18.33%	21.66%	36.67 %	13.89%	10.56 %	64.44 %	35.56 %

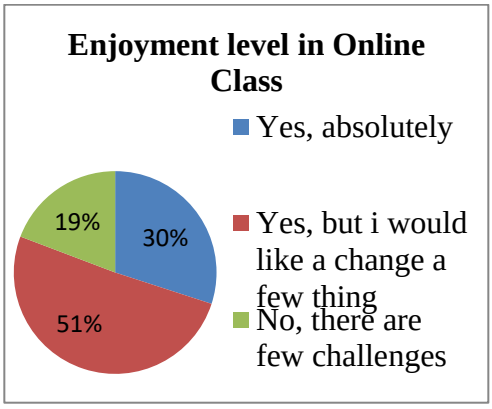
Source: Authors' analysis.

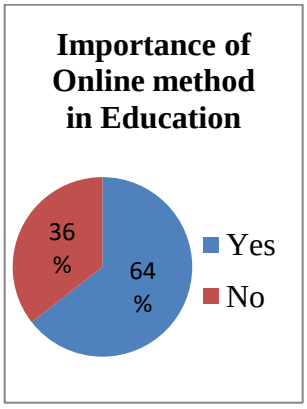
Looking at table 11 it can be seen that when the survey participants were asked does this present lockdown situation affect your mental health about 37.78% respondents reported progressive impact in our mental health, 43.89% respondents reported regressive impact in our mental health, 18.33% respondents reported same as previous that means present lockdown does not impacted their mental health. The study had a question regarding do you enjoy online classes. The results showed that 21.66% respondents reported yes absolutely, 36.67% respondents reported yes, but I would like a change a few thing, 13.89% respondents reported 'no' there are few challenges and 10.56% respondents reported not at all. Things such as technical issues, lack of infrastructure, disturbance in the flow of classes, problems in clarifying doubts, lack of interest and motivations to attend the classes were some prominent factors reducing the effectiveness of online classes. The problems generally faced by them during classes online basically technical issues like poor network connectivity, power cuts, broadband issue, poor audio and video quality, problems with the app, getting disconnected in between the classes and finding it hard to log in again as the main issues. When asked respondents do you think online is one of the important methods in your education the following information was retrieved 64.44% respondents answers 'yes, and 35.56% respondents answered 'no'. Today's generation is technologically well experienced some of the sample expressed that somewhere they perceived their lack of computer experience made it troublesome for them to use the online channel. Some of them expressed it is laborious to concentrate during online classes, interruption at home were

Sampreshan
UGC CARE GROUP 1
https://sampreshan.info/
ISSN: 2347-2979
Vol. 16, Issue No. 3, September 2023

more, no precise learning environment makes it harder for the students to focus during the class. They also expressed that being at home makes online classes burdening for them as they are unable to manage both house work and school work simultaneously. Some of them even expressed that having lack of collateral home environment and family issues makes it harder for them to fully commit themselves during online classes. According to them too many subjects are scheduled on the same day which makes it burdensome for them to stay alert and active. They feel information overload and exhausted. When it came to the positive facet of online classes majority found it to be time saving, as it could be done from the luxury of the home which save time to travel and commute, don't have to hurry to reach school. Other positive things expressed were: speedy completion of syllabus, recording of classes helped in citing to it later. The recorded classes could be watched again and again before the concept is clear. Classes can be attended in any place, every-time thus, giving flexibility. Minor disturbance from classmates, fewer anxiety in asking doubts and queries were also added among the others.







Test of hypotheses

Table 11.1 There exists any significant relationship between COVID-19 pandemic and the online learning is an integral part of education system.

Responses	Samples (O)	Expected (E)	Residuals (O-E)	(O-E)^2/E
Yes	116	90	26	7.51
No	64	90	-26	7.51
Total	180		0	15.02
Df 1	Asymp. Sig. .000		Chi-Square value 15.02	

Source: Authors' analysis.

Decision rule: The researcher therefore rejects the null hypothesis, "There exists no significant relationship between COVID-19 pandemic and the online learning is an integral part of education system" as the calculated value of 15.02 is greater than the critical value of 3.841. Therefore, the alternate hypothesis is accepted that there exists significant relationship between COVID-19 pandemic and the online learning is an integral part of education system**.**

SUGGESTIONS

1. Initiatives need to be adapted to educators as well as students must be trained on how to handle and use online educational devices. Educators must spend quality time to prepare and make their lessons creative, interactive, relevant, student-centered and group-based (Agbele & Oyelade, 2020).
2. Establishment of quality assurance mechanisms and quality benchmark for online learning programmes must be developed and offered by secondary and higher secondary board of education in West Bengal, India keeping in view of rapid growth of the online learning platforms (Jena, 2020; Kushwaha & Tripathi, 2021).
3. If any Pandemic like Covid-19 continues in future, planning to continue education through distance or virtual mode, new approaches for academic assessment should be adopted by educational institutions (Kushwaha & Tripathi, 2021).
4. Government should see the need to build good schools and equip them with modern digital facilities that can aid online education by providing digital devices as well as internet connections (Agbele & Oyelade, 2020).
5. At current times, access to technology and internet is an urgent requirement. So, the digital capabilities and the required infrastructure must reach to the remotest and poorest communities to facilitate the students to continue their education during the pandemics. There is a need to deploy public funds to fix the internet gap and ensure that students continue to learn digitally. The state governments/private organizations should come up with ideas to address this issue of digital education (Jena, 2020).
6. Government should ensure inclusion of online teaching such as integrated digital learning platforms, videos lessons, broadcasting through radio and TV etc. to supplement the normal classroom teaching even when there is no pandemics or disaster (Agbele & Oyelade, 2020).
7. Initiatives should be implemented for schools, colleges and universities to prepare a blueprint for upgrading technology usage in the teaching-learning process. Initiatives should also be adopted to avoid the missing of classes, by making the lectures available on YouTube and Facebook (Maity et al., 2020).
8. Immediate measures are required to lessen the effects of the pandemic on job offers, internship programs, and research projects (Jena, 2020; Kushwaha & Tripathi, 2021).

FUTURE RESEARCH

This research has unveiled interesting multiple intuitions about the different COVID-19 related impacts on education system all over the Indian institutions.

- By integrating larger samples from other areas and regions of the state, a similar research may be conducted.

- A further study can be carried out on why and how exactly awareness about COVID-19 encourages more intention to use e-learning systems.
- A further study can be carried out on the impact of Virtual learning or Blended learning on the students mind.
- A comparative study of the impact of Covid-19 on the urban and rural students in different part of the state and beyond the state may be done.
- A further study can be carried out on how educational institutions should become better prepared for future events, if they may occur, such as one we are witnessing in the current pandemic situation (Nikou & Maslov, 2021).

LIMITATIONS

The majority of the partners of scholarly organizations never utilized ICT-based schooling, the current COVID-19 pandemic that uncovered the absence of inspiration, preparing, and commitment of understudies and educators as well (Garg et al., 2020). One of the drawbacks of the current research is the sample size used that can be expanded to achieve more generalizable findings. The conceptual model was developed for the purpose of this research, and therefore, the structural results and findings should be interpreted carefully. The size of the dataset and the sampling design might be other sources of possible errors. This study took place at Balurghat block in Dakshin Dinajpur district of West Bengal, and might not apply to another place due to different COVID-19 situation, regulations and imposed restriction during the COVID-19 pandemic situation by the local authority.

FINDINGS

Specifically, school students need to deal with various sorts of ecological, electronic, and mental battles because of the COVID-19 pandemic (Garg et al., 2020). The results showed that the COVID-19 related factors not only directly impact respondents' intention but also such impacts are mediated through use of e-learning systems. However, the results showed that the covid-19 pandemic negatively affect the respondents study. The results also showed that the covid-19 is change the education system. E-learning could be a front line innovation for schooling yet during the COVID-19 pandemic, individuals felt requirements of the ideal apparatuses for the educating learning activities. This finding will help design and implement policies to tackle an adverse situation in the future for incessant functioning of the education system by employing basic facilities provided by the governing authorities (Garg et al., 2020).

ISSN: 2347-2979

CONCLUSIONS

School is a place where children can have fun and raise social awareness and social skills. The main motive of going school or being in school is that it enhances the ability of the child. Spending a relatively short period of time in school increases skills and ability. On the other side missing the school or not attending the school will have negative effect on the skill growth. The closure of the schools has affected the structure of learning and schooling. Firstly, it affected the teaching and assessment methodologies (Tarkar, 2020). The COVID-19 pandemic has badly impacted on India in an enormous way, especially on the overall health systems, education and economic activities (Sarkar & Das, 2020). All public and private schools have to shut the doors of their schools following the government directive. While some private schools in urban areas are engaging their students through online teaching, a large number of students who are less privileged or are in rural areas were left out (Agbele & Oyelade, 2020). Teaching is taking place from offline to online. The COVID-19 pandemic has influenced educational frameworks around the world. The ongoing pandemic changed the extremely conventional, chalk–talk education model to new ambitious web-based innovation and technology. The Ministry of Human Resource Development (MHRD) has made a couple of strategies, including on the web entries and education channels through Direct to Home TV, Radios for understudies to continue learning (Garg et al., 2020). The same resulted in loss of classes for the majority of the students, while rest is relying e-learning. Due to the reduction in family income, people have no interest in investing in mobile devices or internet connectivity for attending online classes. Furthermore, this increases the drop-out rate for schoolchildren as their parents need them to contribute to the household income (Maity et al., 2020). School closure brings difficulties for students, teachers, and parents. So, distance learning is a solution to continue the education system (Tadesse & Muluye, 2020). As 5G technology becomes more prevalent in countries like China, USA and Japan, learning and teaching anywhere, anytime, teaching and learning is moving towards the adoption of certain types of digital learning concepts, New methods of learning will replace traditional individual classroom learning, from live broadcasts to “educational influencers” and experiences of virtual reality (Jadhav et al., 2020). The virtual classroom platforms like videoconferencing (Google Hangouts Meet, Zoom, Slack, Cisco, WebEx) and customizable cloud-based learning management platforms such as Elias, Moodle, BigBlueButton and Skype are increasingly being used (Pokhrel & Chhetri, 2021). E-learning could be a front line innovation for schooling yet during the COVID-19 pandemic, individuals felt requirements of the ideal apparatuses for the educating learning activities **(Garg et al., 2020).** This pandemic shows the partnership between technology and education is going to stay forever. One more thing is that education Institutes can divide the courses into conventional teaching and online teaching, it will help in inculcating the technology into the classrooms **(Rawal, 2021).**

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DECLARATION OF CONFLICTING INTERESTS
The author of the paper "Impact of Pandemic Covid-19 on Secondary and Higher Secondary Level of Education at Balurghat Block in Dakshin Dinajpur District, West Bengal, India- A Geographical Appraisal" declare that no potential conflicts of interest regarding the research, authorship and publication of this paper.

DEDICATION
This research paper is dedicated to my parent, who have been my source of inspiration and have raised me to be a person today.

DATA AVAILABILITY STATEMENT
The data sets used and/or analyzed during the current study are available from the author on reasonable request.

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