

# Perception Study to Evaluate University Geography Students' Understanding of the Pandemic and Post-Pandemic Condition, West Bengal

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## ABSTRACT

This study explores the differences in the learning styles of students in the geography department and other relevant fields of study during the pandemic and post-pandemic periods, as well as the challenges they faced. There have also been discussions and studies about issues that are largely related to their educational and academic parameters and secondarily to their physical and psychological health, economic status, and technological advancement parameters. Online polls were conducted among the academics and students in the fields of physical and human geography, as well as other related fields of study. The primary tool that aided in the surveying process was Google Forms. For a thorough comprehension of the topics and subtopics, original data has been represented statistically and graphically. The concepts addressed have also been presented in a general way using diagrams. To explore the aforementioned problems, only students and scholars of human and physical geography and other fields of study have used a deductive method. The analysis reveals a relationship between the issues that researchers and students encountered and how they felt about the type of instruction that aided in their professional and personal development. The research demonstrates that although the pandemic era rendered people technologically adept, physiologically immune, and immunologically sound, it also created an economic imbalance. During and after the pandemic, the targeted population had an overall advancement with several negative effects in the areas of education, health, the economy, and technology. The study highlights the critical state students face due to psychological and physiological issues. To address these, students should focus on meditation, exercise, maintaining their health, maintaining relationships, and developing empathy. They should also utilize financial aid and academic resources to support their careers and professions. Personal finance skills are essential for maintaining awareness and making wise financial decisions during crises. Government and private organizations offer various programs to help students and professionals advance their knowledge in their fields.

**Keywords.** COVID-19, Perception, Students, Pandemic, Post-Pandemic.

## INTRODUCTION

The COVID-19 pandemic, caused by the new coronavirus SARS-CoV-2, appeared in Wuhan, China, in December 2019 (Gamonal-Limcaoco et al., 2022). The virus, which was initially diagnosed as a cluster of

pneumonia cases of unknown origin, immediately gained global attention due to its unusual spread. SARS-CoV-2 is a coronavirus that belongs to the same family as SARS and MERS (Petrosillo et al., 2020). It is distinguished by its high transmission rate and capacity to cause severe respiratory sickness.

When an infected individual coughs, sneezes, or talks, the virus is mostly transmitted through respiratory droplets. It has an incubation period of 2 to 14 days, during which people can be asymptomatic carriers, unintentionally spreading the virus. The virus's affinity for the ACE2 receptor (Beyerstedt et al., 2021), which is abundant in the human respiratory system, helps it enter host cells.

The COVID-19 pandemic advanced quickly, prompting the World Health Organisation (WHO) to declare it a Public Health Emergency of International Concern on January 30, 2020 (World Health Organization (WHO), 2020), and a pandemic on March 11, 2020. The virus spread across borders, harming millions of individuals and taxing healthcare systems around the world.

To combat the virus's spread, governments (*Corona Guideline*, n.d.) devised a variety of measures, including lockdowns, travel restrictions, and social distancing protocols. While these actions were critical for public health (Abbasi et al., 2020), they also had significant socioeconomic consequences, resulting in job losses, economic downturns, and disruptions (Baber, 2020) in education (Laili & Nashir, 2021) and daily life.

Scientists worked feverishly to understand the virus's behaviour, develop diagnostic tools, and design therapies as the pandemic progressed. The unprecedented global collaboration led in the quick creation and deployment of numerous COVID-19 vaccines, providing optimism for future vaccine development.

An assessment of the perception of various aspects of the University students (Yunita & Maisarah, 2020; Anwar & Wahid, 2021; Sarkar et al., 2021) of West Bengal specifically targeted to the Department of Geography, during the pandemic and post-pandemic conditions has been conducted.

The advent of the outbreak at a global scale on various parameters in society has increased many problems which are been addressed. The time during and after Covid-19 Pandemic was crucial. The novel coronavirus disease has shocked society from macro to micro levels.

It ranged from global to national to regional strata of aspects. Covid-19 is an acute respiratory communicable disease that spread vigorously among the human population, if not prevented by any mitigation practices. World Health Organization (WHO), World Economic Forum (WEF), Anxiety and Depression Association of America (ADAA), American Psychological Association (APA), and Government guidelines were designed to follow mandatory rules like social distancing, washing hands frequently and using sanitisers, wearing masks, avoiding crowded places, etc.

Geography as a discipline is a holistic subject that determines space and its relation between objects in the world. Determining the spatial attributes requires scientific, mathematical, and empirical analysis. It can only be done by the learners and scholars (Perera & Abeysekera, 2022) through direct and indirect observation. However, in the case of primary data collection during surveys, it is a necessity to be physically present in the selected study area. This restricted geographers to study and observe practically during the lockdown periods.

It is identified that a research gap is present in studying the insufficiency of knowledge of students about the topics related to fieldwork, laboratory practicals, and the application of various surveying instruments.

The selected study area location is focused on the Indian state, of West Bengal. The targeted group for the assessment of perception is the University Students from the Department of Geography.

It specifically studies and addresses the issues (Derar Serhan, 2020) faced by the students belonging to under-graduation, and post-graduation, from the Department of Geography belonging to a number of universities in West Bengal. It studies the economic, educational, technological, and health parameters among the targeted group.

## METHODOLOGY

During the post-pandemic period, a survey was undertaken with a small number of students pursuing undergrad and postgrad courses. In total, 66 students participated in the survey by answering open and closed ended questions on a prepared questionnaire. 57 students are from the Department of Geography, while the others are from Sociology, English, Japanese, Physics, Political Science, Tourism, Animation, Electrical Engineering, and B.Ed. The intended audience for the perception assessment is university students whose topics require fieldwork and laboratory classes. The primary source of data is the subjective responses of the targeted demographic to an online survey given via Google Forms. The Google Form link was delivered to the intended group via the WhatsApp app. It took two weeks to receive all of the responses. It was planned to be completed between December 2022 and January 2023. Pie charts, stacked bar diagrams, and basic bar diagrams are used to graphically and statistically depict the obtained primary data. For determining percentage values, absolute figures were used. The computation was approximated in order to assess the participants' opinions on financial, educational, medical, and technical issues. To handle the data analysis, the admin's Google Form responses section was utilised.

## RESULTS AND DISCUSSION

### Economy

The pandemic of the Coronavirus (COVID-19) is first and foremost a public health disaster, but it is also, and increasingly, an economic threat (Legese Feyisa, 2020). During the lockdown period, the global and national economy was continuously disrupted, resulting in adverse effects to agricultural, manufacturing and service sectors (Mondal et al., 2021).

According to the survey, Fig.5 shows the majority of respondents (65.67%) have economic stability, while 34.33% struggle with financial management. 62.29% applied for scholarships or loans, but 37.71% are self-sufficient. 55.35% did not labour for extra money, while 28.57% were self-sufficient during the pandemic. With 31%-36%-33%, the distribution of responses on financial conditions is slightly even. Because of the pandemic's need, the majority of respondents purchased digital resources. Many students and their families were overwhelmed by the sudden high demand for necessities. Financial stability was jeopardised, and the decision-making process for purchasing any high-end goods or services, particularly internet services, became more critical. In reality, 65.67% of respondents come from affluent families, indicating that they are well-off during the pivotal time.

### Education

A student's primary responsibility is to concentrate on their educational pursuits, which were severely impacted by the pandemic. The shift in modalities of learning harmed their mental health (AlAteeq et al., 2020; Cori et al., 2020) while also comforting many owing to taking online examinations. Students believe that the flexibility and ease of online classes (Surani & Hamidah, 2020) make it an appealing alternative, however access to broadband concerns in remote locations make it difficult for students to participate in online learning courses (Agung & Surtikanti, 2020; Khan et al., 2020; Muthuprasad et al., 2021).

As illustrated in Fig.6, the survey demonstrates a strong preference for a hybrid learning mode, with 50% choosing online and 43% favouring offline techniques. Approximately 26.92% of respondents have had

favourable experiences with online tests, while the remaining 26.92% have had neutral experiences. In Fig.7, only 46.15% dismiss the online method(Laksana, 2021), citing a lack of practical and laboratory classes as a key concern. The findings also show that respondents have mixed feelings about the impacts of grades and their utility throughout the Post-Covid Phase, with the majority expressing both positive and neutral feelings. In Fig.8, 75% of students regard the lockdown conditions as a threat to their educational status, while 25% have a positive attitude towards the challenges (Khan et al., 2021; Maison et al., 2021)and see the situation as an opportunity.

## Health

The WHO China Country Office was notified around the end of 2019 of pneumonia cases with an unclear aetiology discovered in Wuhan City, Hubei Province, China. On January 7, Chinese authorities found a new strain of coronavirus termed SARS-CoV-2 after attempting to trace the outbreak's cause. China released the unique virus's genomic sequence on January 12, 2020. Since the outbreak's start, what is now known as the Novel Coronavirus (COVID-19) has spread to the rest of the world, making this respiratory disease a pandemic(Gamonal - Limcaoco et al., 2022).The health circumstances jeopardised pupils' general health, and the negative effects on mental health persist in the Post-Covid phase.

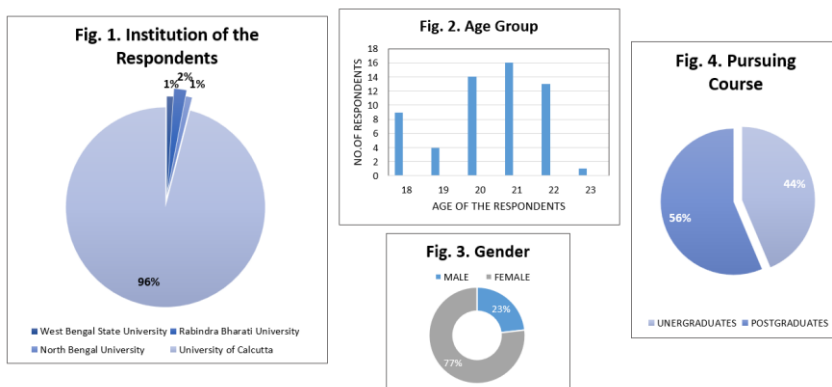
As shown in Fig.9, the majority of respondents in India were afflicted by Covid-19 during the Second wave, with an exponential increase in cases in April 2021. Despite fluctuating psychological health(Aslan et al., 2020; Kohls et al., 2021) and mental stability(Hasan & Bao, 2020) as a result of extreme external situations, 58% of respondents demonstrated positive mental stability and effectively managed their negative emotions (Fig. 11 & 12), indicating that the crisis has had a significant impact on mental health and resilience.

## Technology

Technological breakthroughs(Hannele Marjatta Niemi & Päivi Kousa, 2020), backed up by a robust research foundation, aided in containing the pandemic's harm(Goel et al., 2021). The chosen group responded well to and adapted effectively to fast-growing technology(Syauqi et al., 2020; Bączek et al., 2021), not only for academic objectives, but also for learning new skills and investing more time in their interests through online media platforms(Nugroho et al., 2020; Biswas et al., 2021; Manash Pratim Goswami, 2021), flourishing in difficult circumstances.

The pandemic has significantly impacted technological advancements, with 57% of the targeted age group in Fig.14. showing rapid technical adaptation(Kumar et al., 2021) to new technologies. During the pre-Covid pandemic, they were already skilled and adapted quickly to new technologies. Digital resources(D. A. Akuratiya& D. N. R. Meddage, 2020) like e-books, e-libraries, e-journals, and online classes(Khan et al., 2020; Laksana, 2021) have been used to continue academics and learn new skills, demonstrating the rapid technological advancements during this period.

## FIGURES



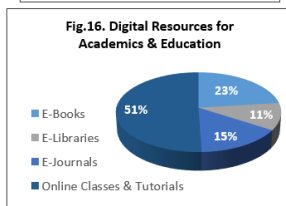
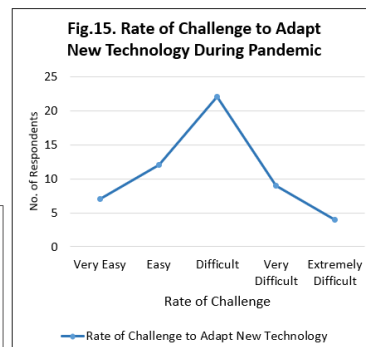
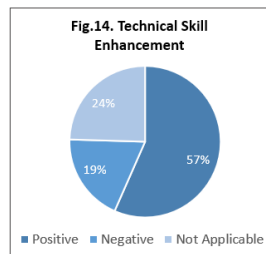
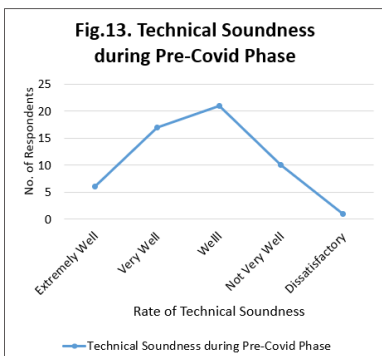
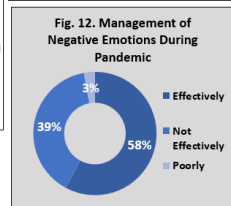
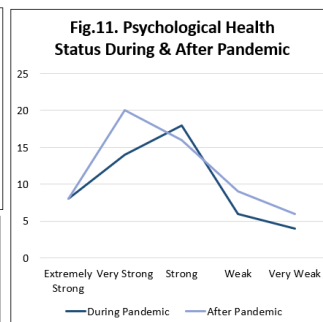
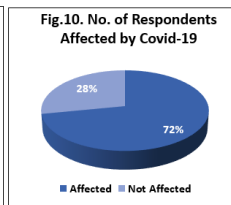
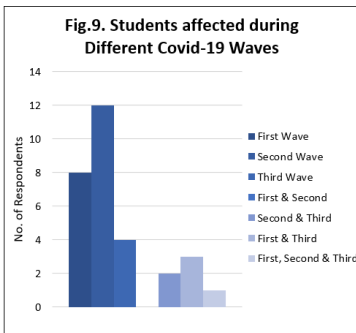
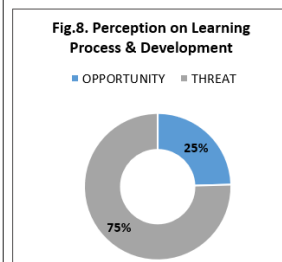
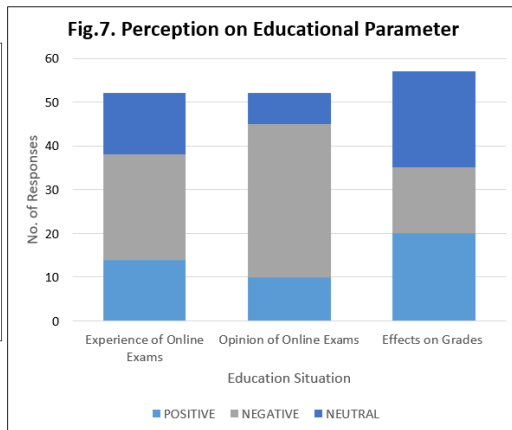
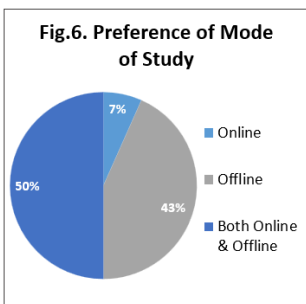
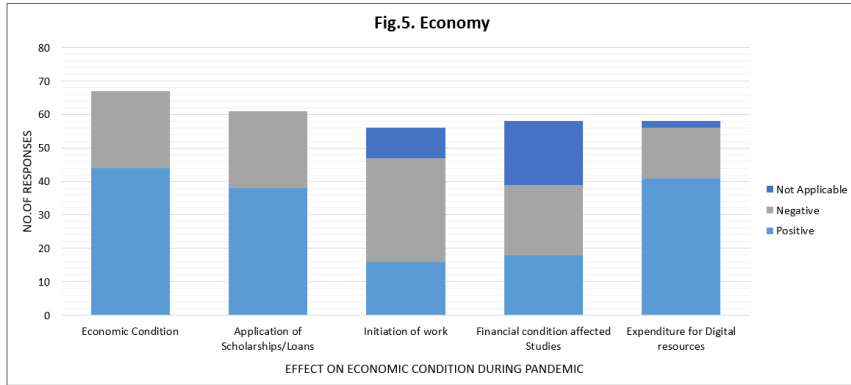


Fig 1. Pie Chart showing Respondants belonging to the different institutions of West Bengal, Fig 2. Bar Diagram showing Age group of the respondents, Fig 3. Donut Pie Chart showing Gender distribution of the intended group of students, Fig 4. Pie Chart showing Pursuing courses by the students- Undergrad and Postgrad, Fig 5. Stacked Bar diagram showing Financial Stability and status during Covid Pandemic of each respondents, Fig 6. Pie Chart showing the preferences of students on overall studying-teaching methods and modes, Fig 7. Stacked Bar Diagram showing the Experiences, Opinions and Effects of Covid-19 Pandemic on Education, Fig 8. Donut Pie Chart showing the students' perception of the lockdown period as Opportunity/Threat, Fig 9. Histogram showing the distribution of students affected during the different waves of Covid-19 in India, Fig 10. 3D Pie Chart showing the no. of respondents getting infected by Covid-19, Fig 11. Line Graph showing comparison of Psychological Health Status of students during and Post-Covid Phase, Fig 12. Donut Pie Chart showing the way of managing negative emotions during the crucial time by the students, Fig 13. Line Graph showing the Technical Soundness during Pre-Covid Phase, Fig 14. Pie Chart showing the adaptability and skill of students for Technical Enhancement, Fig 15. Line Graph showing the rate of challenge to adapt new technology during pandemic, Fig 16. 3D Pie Chart showing Applications by students of Different Digital resources for academics and research during the lockdown periods.

## CONCLUSION

From the major findings and results, it can be said that the targeted group of respondents have surprisingly, shown moderate stability in the aspect of personal finance and advancement in technological soundness throughout the outbreak.

However, the major complications related to the parameters of physical & psychological health and education are very high among them.

To address this issue, institutions and policy makers could work on the provision of laboratory and practical classes in the Department of Geography which students are lacking from their previous courses during the pandemic.

Serious impacts due to the Pandemic are seen in the psychology of the students which should be brought to the concerns of the higher authorities of the institutions.

Under the aspect of physiological health, the maximum number of students are triple vaccinated. Still, they show signs of constant fatigue, highly vulnerable to cough, cold and sore throat. This resulting to create a negative impact on their psychology and academic performances.

## RECOMMENDATIONS

The study highlights the critical state in which students find themselves due to psychological and physiological issues, which may be addressed with consistent meditation and exercise regimens. putting one's own health first by drinking enough water based on one's BMI (body mass index)(WHO, 2010) and adhering to a healthy sleep schedule. consuming a healthy diet that include carbs, lipids, proteins, and fibre at every meal. Since humans are social animals, they must maintain relationships in order to survive. To improve cognitive function, people should make an effort to socially interact with their loved ones and develop empathy for others. employing financial aid and academic resources to support one's career and profession while concentrating on skill-building programmes and activities offered by the government and different organisations. One can acquire the knowledge to deal with challenges by using strategies(Susila et al., 2020) in this way, staying aware and adaptable to the difficulties that lie ahead.

Students must also learn the skill to manage and grow personal finance(Jason Fernando, 2024) irrespective of any stream because this may facilitate her/him/them to maintain a proper awareness of their expenditure and would facilitate to take wise financial decisions during crisis.

Government and private organisation aided programmes are abundantly available namely Kaushal Augmentation and Restructuring Mission of AICTE (KARMA)(*General Schemes*, n.d.), Strengthening, Upscaling & Nurturing Local Innovations for Livelihood (SUNIL) Programme, Technology interventions for Addressing Societal Needs (TIASN), Community Resilience Resource Centre (CRRC), and Science & Society Setu for Atma Nirbhar Bharat (S34ANB) (Science for Equity Empowerment and Development (SEED) Division, 2024). These would undoubtedly make it easier for students and other professionals to advance their knowledge in the fields in which they are interested.

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