# DIGITAL DIVIDE, GIRL'S EDUCATION & EXCLUSIONARY PRACTICES IN THE TIMES OF COVID-19: A STUDY OF GOVERNMENT SCHOOLS IN SOUTH DELHI

**A Dissertation Submitted to the University of Hyderabad in Partial Fulfillment of the Requirement for the Award of the Degree of**

**MASTER OF PHILOSOPHY**

**IN**

**CENTRE FOR THE STUDY OF SOCIAL EXCLUSION AND INCLUSIVE POLICY**

**BY**

**GUNJAN**

**20SIHL04**

**CENTRE FOR THE STUDY OF SOCIAL EXCLUSION AND INCLUSIVE POLICY (CSSEIP)**

**SCHOOL OF SOCIAL SCIENCES**

**UNIVERSITY OF HYDERABAD**

**HYDERABAD – 500046**

**TELANGANA (INDIA)**

**December 2022**

## DECLARATION

I, Gunjan hereby solemnly declare that this dissertation title as **"Digital Divide, Girl's Education & Exclusionary Practices in the Times of Covid- 19: A Study of Government Schools in South Delhi"** is an original outcome of my own study undertaken under the supervision of **Prof. Ajailiu Niumai** in the Centre for the Study of Social Exclusion and Inclusive Policy, (CSSEIP), School of Social Sciences, University of Hyderabad for the award of Masters of Philosophy from University of Hyderabad. To best of my knowledge no part of this dissertation has been formed for the award of any degree diploma of this university or any other university or Institute.

Place: Hyderabad

Date: 18.9.2022

**Gunjan** gunjan

**Reg. No. 20SIHL04**

**CERTIFICATE**

This is to certify that the dissertation entitled **"Digital Divide, Girl's Education & Exclusionary Practices in the Times of Covid- 19: A Study of Government Schools in South Delhi"** is the record of the original work done by Gunjan bearing the Reg. No. 20SIHL04 in partial fulfillment of the requirements for the award of Master of Philosophy in Centre for the Study of Social Exclusion and Inclusive Policy is a record of the bonafide work carried out by herself.

This dissertation has not been submitted previously in part or in full to here or any other university or institute for the award of any degree and diploma.

Prof. Ajailiu Niumai
Supervisor

Supervisor
CSSEIP
School of Social Sciences
University of Hyderabad

Prof. Ajailiu Niumai
Head,
CSSEIP

HEAD CSSEIP / SSS
University of Hyderabad
HYDERABAD-500046

Prof.Y.A. Sudhakar Reddy
Dean

अध्यक्ष / DEAN
समाज विज्ञान संकाय
School of Social Sciences
हैदराबाद विश्वविद्यालय
University of Hyderabad
हैदराबाद-500 046., भारत
Hyderabad-500 046. INDIA.

## ACKNOWLEDGEMENT

I am in a deep sense of gratitude at the end of these two years of an unknown intellectual journey, and I would like to express my sincere thanks and gratitude to those who were with me throughout the journey as co-passengers and provided every possible support whenever I needed.

First and foremost, I would like to express my deepest sense of gratitude to my supervisor Prof. Ajailiu Niumai, for her continuous efforts to guide, support, and encourage me to complete this dissertation. Her valuable suggestion and feedback were useful to improve my analytical as well as written skill. I would also like to thank Prof. Sreepati Ramudu, and Dr. J.Rani Ratna Prabha for providing me an understanding on exclusionary practices in the society through their compulsory courses. I am indebted to my Doctoral Committee Member Prof. G. Nagaraju from the Department of Sociology for his invaluable suggestions. I am also thankful to Ms. Mehzabeen Khan, and Mr. Purnachandra Rao for their timely assistance. I would also like to express my gratitude to my family and the unconditional care of my mother and sisters for always supporting me and giving me the chance to pursue my M. Phil. degree in one of the most reputed institutions in India.

I express my thanks to all my friends Prathana, Jatin, Dilpreet, Prachi, Vinay, Abhilasha, and Pearl for their insistent help during my research work for which I am grateful who helped me out in this research. Sincere thanks to all others who made me laugh, fought with me, and are special to me.
I want to thank all my participants for their valuable time. Finally, I would like to thank all the people attached to this dissertation in some way or the other. I would not have been able to complete the research without all of you.

Gunjan.

# TABLE OF CONTENT

## LIST OF TABLES

## LIST OF FIGURES

## ABBREVIATIONS

AISHE- All India Survey of Higher Education

CBI- Central Bureau of Investigation

DDA- Delhi Development Authority

DLF- Delhi Land & Finance

GER- Gross Enrolment Ratio

GSDP- Gross State Domestic Product

HCL- Hindustan Computers Limited

ICT- Computers and information technology

IoT- Internet of Things

IR- Industrial Revolution

IT- Information Technology

ITO- Income Tax Office

JNU- Jawaharlal Nehru University

LPG-Liberalized Privatized Globalized

MCD- Municipal Corporation of Delhi

NCT- National Capital Territory of Delhi

NDA- National Democratic Alliance

NSSO- National Sample Survey Office

OBC- Other Backward Class

PLFS- Periodic Labour Force Survey

SARS-Severe Acute Respiratory Syndrome

SC- Scheduled Castes

SDGs- Sustainable Development Goals

ST- Scheduled Tribes

UDISE- Unified District Information System for Education

UNESCO- United Nations Educational, Scientific and Cultural Organization.

# Chapter-1

## 1.1 Introduction

Education is the most crucial attribute for an individual to bring about transformation in society. There is a famous saying that if you educate a man, you educate one person. However, educating a woman helps to educate the entire society. This indicates that when girls and women are educated, their society will be empowered. It is a fact that an educated individual has a much higher life chance than illiterate people since they are employable in a competitive society. Education has an important place in women's empowerment. Education helps women to achieve their potential capabilities. Generations of people can receive the benefits of investment in educating a girl child. The value of education helps realize the potential dedication to go beyond the traditional roles assigned to womanhood and get safe from several socio-economic, health-related, and other issues. School and universities assist girls in realizing their autonomy, providing a sense of freedom and independence, and protecting them from early marriages and pregnancy. Education and human development are interlinked. Development economists urge to invest more in girls' education to reach overall development goals since women and girls are the pillars of human society.

One such change in the way teaching and learning is delivered that extends beyond print media is the digitalization of education. The demand and supply of education in modern times, which is an entirely different experience, has made computers, laptops, smartphones, iPads, and social media platforms indispensable. The lack of a digital device limits a learner's opportunities, creating a ‘hollow’ gap in digital education. The idea of the digital divide is based on several characteristics, including class, caste, sex, and geography.

## 1.2 Digital revolution

With the steam engine innovation in 1760, the first industrial revolution got underway. The development of a modern industrial system from farming and a feudal society was made feasible by the introduction of the steam engine. During this period, railways served as the primary mode of transportation, and coal served as the primary energy source. In terms of capital invested, output value, and employment, textile, ‘steel railway’, and ‘coal’ were the two most important industries. The internal combustion engines creation or the use of the heat engine in 1900 marked the start of the second industrial revolution. This sparked a period of quick industrialization that relied on electricity and oil to drive mass production. The third industrial revolution in the beginning of 1960 was marked by the adoption of electronics and information technologies to automate production.

The traditional methods of manufacturing entailed joining numerous parts using screws or welding. (Xu, M., David, J. M., & Kim, S. H., 2018.) After the three industrial revolutions, the fourth industrial revolution, or 4IR is marked by the growth of rapid change in technology, industry, interconnectedness, intelligent and simulated automation. The term gained popularization after the book came with the title as "The Fourth Industrial Revolution" in 2016 written by Klaus Schwab, the founder, and chairman of the world economic forum. These changes are seen as helpful to increase efficiency in productivity through artificial intelligence, the internet of things, machine learning, and advanced robotics. The link between organizational reform, digitization, and increased efficiency in manufacturing and production systems lies at the heart of the fourth industrial revolution. India as a developing country is trying to reach its goal of advanced development. Following the 1991 implementation of the LPG (Liberalized, Privatized, and Globalized) growth model by the administration of former Prime Minister Manmohan Singh, India has seen massive growth in privatized industry expansion and through this, the entire world of opportunities became open for people. The focus areas of Digital India comprise the visions such as creating a countrywide digital infrastructure that can be adequately used by every citizen of the country, providing the governance and services on demand within the expected time period, and empowering citizens through digital means. In order to make the Digital India programme successful, several key pillars have been put in place, including broadband highways, universal access to mobile connectivity, public internet access programmes, e-governance to reform government through technology, e-Kranti an electronic delivery of services, information for all, electronics manufacturing, IT for jobs, and early harvest programmes. (Kedar, M. S. ,2015.) The goal of making India competitive in the digital world is still being pursued through the vicious circles of poverty and illiteracy, which results in causes for unemployment due to a lack of sufficient resources and skills. As a result of poverty, social, physical, and mental well-being suffered from a lack of opportunity. It is difficult to think of any other form of advancement when individuals are unable to achieve their fundamental minimal demands for food and electricity.

### 1.3 Digital world and covid-19

The worldwide pandemic (SARS Covid-19) has brought various changes and problems that must be addressed. Data access and utilization are critical for development; nevertheless, countries vary in their readiness to harness data for development. There are red flags raised on the equality of opportunity in a technical environment, capital enhancement, and positive outcomes from the usage of the internet. Digital divide during the covid-19 pandemic has severely impacted sustainable digitalization, while considering the speed of technological innovation and 5G spread in the realm

of the internet of things. As many activities relocated exclusively online during the pandemic, the digital world got more attention than ever before. Data became more significant as a valuable economic and strategic resource even for survival as a trend accelerated by COVID-19. Experiences of countrywide lockdown restricted the easy flow of mobility under the social distancing norm to reduce the transmission of the illness. As a result of the pandemic, the methodology to deliver education entirely became online. Schools and educational institutions had no choice but to set up their platforms in an online-enabled environment to continue the teaching and learning process. Students and teachers were left with no other option but to use online platforms such as Zoom, Google Meet, and Whatsapp to continue the pace of education delivery and pickup. These major alternatives have taken over the traditional physical classrooms more than ever before. The campaign for Digital India, as proposed by the NDA government in 2015, was immensely affected by the increased digital divide where India was not only fighting with the deadly virus but years of uprooted socioeconomic reality fabricated under the pandemic. The significance of the debate between the India and Bharat reserves an important space while addressing digitally equipped developed India and underdeveloped rural areas, slums, and refugee camps of urban cities to convey the picture of Bharat. Information and communication networks are critical in realizing citizens' civil, political, and social rights. Citizens need access to the internet in order to have access to information that allows them to engage equally in society. The COVID-19 pandemic has exposed many citizens' digital vulnerability as well as their connectivity, use, and exploitation and the catastrophic repercussions of that vulnerability.

### 1.4 Gender digital divide and education

By adding a new recommended methodology of online teaching and learning processes, the digital gap has been made even worse. There is a significant danger of being digitally deprived channeled through the already-existing socioeconomic realities of underprivileged communities during the covid pandemic. Adopting e-learning as an alternative during pandemics has resulted in a widened digital gender parity regarding electronic device accessibility and internet usage. Girl children, particularly those belonging to low socioeconomic status who stay in remote rural communities and urban slums, are the most affected by the pandemic. Securing educational rights and freedom became another milestone to be achieved by these girls. They are unable to participate in new teaching and learning procedures due to the reality of not being able to make ends meet. The inability to be a participant is directly linked to the exclusion and marginalization as a result of their identification as belonging to a specific class, family, and region. Only a few people have the opportunity to attend school. How can they be expected to participate in online delivery of

education when their health and survival are threatened? Having an internet connection, a suitable device and the capability to afford the cost of maintenance depends on a special kind of social and cultural capital. People who lacked such privileges during the pandemic remained as passive bodies.

The online model placed an additional burden on the student to be well-prepared, to have a well-functioning device, and internet access that enables adequate audiovisual reception and transmission. The majority of the households of low income and lower strata are overcrowded, where making social separation is not possible. Girls in such households are expected to help with domestic chores that increase their household-related load of burden. Social and societal stereotypes related to the use of mobile phones or devices by a girl have other obstructions to access to digital devices. If a girl spends most of her time on the phone or internet, then additional limits are placed on the use of technology under the existing presumptions of misuse. This stereotypical side creates a visible obstacle on their path to reaping the benefits of online learning with other barriers to owning a device. In such conditions, the digital divide is not only a digital divide but also a gender-current pandemic scenario. Gender digital divide for the position of women and girls reflects their status as being on the verge of a pedestal to participate in the world of the Internet of Things. After the classification of the three worlds based on their rate of development, the fourth world of exclusion is populated by women and children in the information economy. A decent study environment with digital equipment, sufficient digital skills, informed parents, and a well-prepared delivery by the school are essential factors for distant online education to succeed, and these settings are likely to be socially stratified.

Because they are not attending schools or institutions, their homes have been transformed into spaces with no serene environment or privacy due to the constant presence of all members. In such circumstances, the performativity of gender has placed another burden on girls and women. The pandemic has reflected once again that domestic space and the digital world may not be egalitarian for everyone.

Gender performativity and unpaid care duties got increased during the time of the pandemic. The effects of disaster leave girls and women on the edge of meeting the ends for their empowerment due to the expectations attached to womanhood. Any disaster or pandemic adversely affects girls, women, and children the most. A growing digital gap exacerbated existing inequities during covid. Despite the phenomenon of information overload, information might be scarce in certain situations. The digital gap is not confined to merely having purchasing power and physical access. However, it goes beyond and affects the long-term effects of professional career opportunities and cognitive behavior along with emotional wellbeing. The skills-related factor is a crucial source of digital divisions describing the stage going further from economic affordability.

Due to the infrastructural realities of schools and the lack of skills and digital literacy, the readiness for distance online learning during the pandemic got difficult. The effect of unequal access to knowledge has social, cultural, and psychological causes. The inadequate infrastructure restricts the practicalities of online learning, such as the loss of interactivity and lack of access to study materials among other things. Due to the persistent digital gap within communities, not all teachers/students can adopt the online teaching and learning methodology. Not all of them were well prepared for the abrupt shift from physical classroom experience to online delivery of education.

According to Verma and Campbell (2020), many institutions lack skilled teachers who can work remotely using online platforms, therefore they struggle to accept the transformation. A teacher or a student becoming a technocrat in a short period is an injustice; therefore they face challenges that affect the integration of the course with the online method while conducting online sessions. The instructor and the student are the two pillars that support the educational system. Thus, difficulties must be addressed from both sides. When applying the new system, the boundary line between private and government-funded institutions and universities must be considered. As the latter has a significant impact on our country's gross enrollment ratio (GER). Being a digitally prepared and adaptive human is determined by various important factors, such as family background, living environment, income, class, caste, gender, and geography.

### 1.5 Statement of the Problem

Digital India's beginning, particularly in the sphere of education, is a key concern for the holistic development of rural India and urban slums of metropolitan cities so that children from all walks of life can benefit and develop their abilities. Indeed, a strong vision for individual autonomy, agency, and independence, particularly in expanding female leadership potential in the family, community, and nation is required.

Undoubtedly, it is a commendable endeavor that falls under the Digital India dream. However, the hopes of rural and urban girls have broken due to inaccessibility and lack of adaption to technological gadgets. These women are outnumbered among those who can claim to be digitally proficient. So far, the available literature on the digital divide is concerned with the side of 'access.' Since the unprecedented aftermath of covid has made the deep-rooted socioeconomic cleavages visible again, it is necessary to revisit the rise in the digital divide during Covid-19 and its impacts on education.

To identify the winners and those who have been outnumbered, a thorough investigation is needed. The purpose of this study is to learn more about the proposed online teaching and learning methods and how female children who belong and live in underprivileged socio-economic realities are outnumbered and have become victims of new forms of exclusion during the pandemic situation. How their aspirations and dreams have been dashed, and how they have been denied access to educational opportunities. Due to the pandemic's intensity and scope of effects on society and people's daily lives, these girl children, in particular, will be impacted. There is a strong requirement for well-examined research into this new form of social psychology of exclusion in education due to being digitally deprived.

### 1.6 The rationale for selecting girls for the study

The selection of female students will aid in comprehending the intersectionality of concepts in this study. Exploring the growing digital divide through the perspective of gender and its impact on schooling is crucial to understand what does it mean to belong to a specific social group? A girl dropping out of school is linked to a range of issues. Gender performativity plays a critical role in whether they are encouraged or remain in a situation where they desperately seek someone to sympathize with and to give wings to their ambitions and aspirations. Because, in every disaster, girls and women confront double victimization and they are impacted twice: in terms of their social standing and in terms of their biological peculiarities. An overlapped conception of their womanhood and suffering can be better understood by looking at the experiences of girls from lower socioeconomic groups.

### 1.7 Research questions

- Was every student, particularly girls from urban slums, able to participate for online classes?
- Is there any connection between drop out reasons and the availability of internet connection and digital devices?
- How have girl students belonging to lower socio-economic background who already struggle on daily basis to make their ends meet experienced new difficulty for securing their educational rights and their future prospects?

### 1.8 Hypothesis

- Under the proposed methodology of online teaching and learning process, which has been acknowledged as a replacement for a traditional style of education during pandemic like Covid-19, the persistent digital divide has been widened.

- Due to inaccessibility and lack of adaptability for electronic devices, girl children belonging to slums are excluded from the methodology of online teaching and learning process. This form of exclusion has direct effects on their position to secure their educational rights.

- During the epidemic, due to the constant presence of household members in the house, girl children were overburdened by their gender performativity which resulted in the incursion of their privacy and an appropriate calm atmosphere for their online learning opportunities.

### 1.9 Objectives of the study

- To examine the exclusionary practices and new forms of exclusion emerged during the times of Covid 19.
- Impacts on the education sector during the Covid 19 epidemic.
- To examine digital divide from gender lens in context of school girl children from the urban slums of South Delhi.
- To examine various concerns such as absenteeism, learning motivation among students, study related stress, and lack of participation for online classes.

### 1.10 Structure of chapterization

This dissertation is divided into five chapters. It is important to arrange all the chapters of any dissertation or thesis so an overview of the document can be provided. The introductory chapter is the first chapter of this dissertation. This chapter provides an overview of the title of the dissertation. Concepts such as digital revolution, digital world, and covid, and the impact of gender digital divide on education have been explained. The chapter further explains the statement of the problem, the rationale for selecting girl children, research questions, hypothesis, and objectives of the study.

The second chapter focuses on key literature on the themes of social exclusion, digital divide through a gender lens, gender performativity, and equality of opportunity, followed by the theoretical framework. Theory of sociology of education, postmodern feminist theory, theory of social exclusion, deprivation, discrimination, and the relationship of social exclusion with equality of opportunity, theory of gender performativity, feminist ethics of care, and gender digital divide have been used to connect the concepts with data analysis.

The third chapter provides an overview of the methodology and profile of the study area. The methodology consists research design, sampling universe, sampling method and strategy, sample size, tool for data collection, and explanation of some operational definitions. The profile of the

study area examines Delhi's climate, soil classification, flora and fauna, political and administrative history, demography of Delhi with special reference to economic growth and industrial expansion, education, and slums of the south Delhi region in the city.

The fourth chapter of this dissertation analyzes the data and scrutinizes it under a theoretical framework. The chapter examines two side responses coming from participated girl students and teachers. Students' family size, their parents' occupation, and earnings, availability of digital devices, familiarity with devices, and views regarding online classes are some of the themes on which the data has been collected from participated students. The participated teachers gave their opinions in response to inquiries on the strength of the classroom, participation of students in online classes and offline classes, and students' performance in both online and traditional classroom settings etc.

The fifth chapter ends with a discussion on the data collection and use of theories by the conclusion consisting of significant recommendations. The limitation of the study has been given along with the recommendations.

# Chapter - 2

## 2.1 Literature Review

A literature review is an essential part to do before conducting any research. It is essential to answer the relevance and significance of literature review as to why it is vital for any research. The diobussion on literature review is a crucial component of every research. It helps a researcher to examine what previous research on a particular issue or topic has been done. The most significant purpose of a literature review is to establish a baseline of what is already known about a subject before going deeper into it and how much more needs to be explored to find the gaps and add new nuances. This process helps a researcher to find out the pathway as to which direction he or she should be going to get the answers that they are seeking.

The review process typically includes searching for any previously published or presented materials that might be relevant to a proposed new study once a hypothesis has been established. Experts in a given field are found through the literature study to understand each side through their work. It can be used to figure out which researcher has the most publications in a specific field, which helps to discover more about the subject's expert.

The next step is to select critical questions about a topic that must be thoroughly explored to build new questions and introduce new approaches to the reader. A literature review helps to identify tactics used in the past study on the same or related issues. This process determines which approaches might be most helpful for expanding a topic and pursuing new research perspectives to assist a researcher to create a solid knowledge base in the field.

A thorough literature evaluation is necessary to help a researcher to decide which specialists to consult or refer to quickly answer any inquiries about the topic and research. The purpose of a literature review is to assist a researcher in determining which studies have been mentioned by different scholars over time and how many times they have been cited. Formulating an acceptable search strategy and selecting search terms is the crucial stage that helps to discover resources relevant to the study topic.

During pandemic times, addressing the widened global digital divide and gender digital divide has become a pressing need as cases of underage marriage, gender discrimination; domestic violence, gender precarity, unprotected sex, and unwanted pregnancy have increased. These issues have extended the cleavages of social exclusion and disqualification. It has become difficult for students to secure their educational rights and future opportunities, especially for girl children under the

widened digital divide. This study focuses on specific issues related to the education sector caused by rising school dropout rates as well as the social and psychological experiences of students throughout the epidemic. Delayed delivery of lessons and maintaining student accountability are especially problematic for teachers in virtual classrooms when sections are frequently mixed. Time constraints are another obstacle to a constructive student-teacher relationship in the virtual online classroom; this makes virtual classrooms obsolete.

According to Gurumurthy and Chami's (2018) report, the Digital India campaign does not reflect the reality of excluding women from the digital narrative because there is a lack of gender reality checks for digital accessibility and adaptability in the campaign. These instances create a barrier to women's participation because their numbers are not counted and do not even exist while celebrating the notion of technological advancement. These women are similar to Amartya Sen's missing women hypothesis regarding gender mortality, but their numbers are missing in the context of digitally equipped individuals. The latest study was done on women and ICT, a case study of North India for their access and perception by (Sumanjit Singh, Surender Singh, and Anil Kumar 2018); a report by (Mukherjee and Satija 2020) highlights the socio and cultural aspects of women's participation, but it lacks to explain the school dropout rates and child marriage.

Asian Development Bank, in its recent virtual development symposium held in October 2020 during covid, urged regional cooperation to combat the digital divide and provide high-quality and affordable internet connection and accessibility. Due to the gender digital divide, there is a new form of social-psychological discrimination and exclusion. This can be understood by combining actual examples with social exclusion theories. This chapter examines the relevant literature on social exclusion and the gender digital divide. Several studies have been reviewed in this chapter to better understand the issue at the front and the effects associated with it.

Social exclusion is a sociological concept associated with a multidimensional process. As Hilary Silver in 2007 explains, with the help of Durkheim's tradition and Weber's notion of limiting access to resources, the socialization of a society is based on normative and moral norms, which are foundational principles for any society's functioning. The lack of bond characterizes people as being excluded from resources and society. Digital disability is a type of impairment that is not physical, but it prevents people from receiving benefits from the technological world due to their lack of digital literacy. Girls and women under the gender digital divide face double discrimination; these females are also barred from partaking in cutting-edge technological advancement. The notion is multidimensional because it encompasses knowledge of how one side affects another in terms of exclusion, leading to rejection of agency and autonomy, which manifests as discrimination, disqualification, deprivation, and humiliation.

As Dominic Abrams explained in 2005, this is the social psychology of exclusion, which impacts an individual's personality and identity as well as the emotional equilibrium. These characteristics fall under the category of exclusionary language. According to Amartya Sen, any type of exclusion results in capability deprivation. Sen's renowned concepts of 'Freedom as Development' and 'Capability Approach' highlights capability deprivation due to chronic poverty, impacting an individual's freedom and development. This effectively eliminates a person from society, the labor market, and all kinds of employment opportunities which continue to deepen inequality. These inequalities further exclude people from attaining productive well-being and continuously keep them excluded. This leads to a low rate of development. Undoubtedly, digitalization is essential, it opens up access to global reach and inclusive development, however not having access to the internet and lack of digital literacy itself is an example of exclusion and marginalization. Internet accessibility is similar to having a luxury when sustenance of bare livelihood is difficult.

The concept of the 'Performativity of gender work' explained by Judith Butler in 2009 is important to understand the present experiences faced by girls and women in the household during the pandemic times and continuing the norm of social distancing. These norms perpetuate power relations through constant production and reproduction in which the female body exists for others as a submissive body in the face of the pandemic. As noted by Bina Agarwal in 2021, the work-from-home scenario has further burdened women and seized their economic freedom. This economic inequality leads to gender inequality, where gendered-based negotiating power is shared within the family. This is a striking illustration of impoverished girls and women confronting difficult situations during the disaster.

### 2.1.1 Jan A.G.M. Van Dijk (2006)

In their paper on "Digital divide research, achievements, and shortcomings", the authors have explained the notion of the digital divide as the gap between those with and those without access to computers and the internet. It has been a significant problem for scholars regarding new media development since 1990. They have classified the definition of access into four categories: motivational, physical, skills, and usage. The shortcoming and achievements of the research on digital divide over five years period (2000-2005) has been explored by author. They raised some critical questions as equality of what? What type of inequality is the term digital divide referring to? To answer these questions, they have argued that the term inequality in the digital divide research so far has been explained by the help of sociological terms in the context of possessions (Marx), position and profession (Weber), and relationship and power. Even after explaining the term and concept of inequality, so far the research on the digital divide lacks the foundational theoretical

base, historical perspectives, interdisciplinary research, and longitudinal data with a qualitative approach.

Most of the research is quantitative in its approach. In this regard, it is crucial to raise the question of what is new about the disparity between access and use of ICT versus other scarce material and immaterial resources in society? In the age of the information and network society, do new sorts of inequality exist? What are these sorts, if they exist? How attitudes toward computer and internet use are formed, and how inequalities of motivational, physical, skills, and usage access are perpetuated. The fourth major flaw in digital divide research so far is that it is very stagnant in terms of reasoning and empirical evidence. There is a lack of flexibility in the approach. The term digital divide carries so many meanings with it. There are different kinds of digital divides that shape the different kinds of meaning of access.

According to diffusion theory's trickle-down principle, current technology such as personal computers and internet connections will soon be available to everyone because they are getting cheaper and easier to use. Such arguments appear dynamic, but it is essentially static in the context of usage which is different from the context of availability. One forgets that technology is constantly changing; therefore, the people who have acquired the fast change do not stop obtaining the newer technology and required skills associated with the diffusion in technological advancement. A final issue in digital divide research is that it does not pay enough attention to the repercussions of the observed digital divide. Definition and analysis of the concepts are not enough to explain important questions which are related to the later effect of the digital divide and gap such as what is the difference between a computer and an Internet connection? What does it mean to have Internet access? What exactly are computer literacy, digital skills, and other comparable terms? What is the definition of internet usage? There is a shift in focus from physical access to skills and utilization. Regarding physical access, the gap appears to be reduced in most industrialized countries; nevertheless, the gap maintains or expands in terms of digital skills and application use on a different level within the industrialized country’s own territory and also international territory, regional territory, etc. The second type of effect makes the industrialized process slower for underdeveloping and non-developed countries. The Digital India campaign and India's digital divide are examples to assess the achievements and shortcomings of the diffusion of technology.

### 2.1.2 Silver (2007)

The process of social exclusion as a social label of disaffiliation and disqualification encompasses humiliation and social isolation. Any kind of denial whether it is related to access to information, resources, recognition, identity, or capabilities, produces the impression of discrimination, rejection, eviction, expulsion, or ineligibility results in a decline in the sense of unity. The exclusion is a multidimensional notion that involves a structural process of social isolation that is strongly linked to the economic side of chronic poverty and thus leads to other social and cultural repercussions, with any factor taking the place of the other. The phrase is constantly evolving to encompass those who have spent most of their lives in poverty and disadvantage. There seems to be every day based exclusion for holding different views, choices, and belonging to the particular community, certainly when these groups of 'self' and 'others' start to create their existential position. The division based on 'self' and 'others' can be dangerous when the feeling of hatred starts to accumulate towards the other in order to protect the self.

### 2.1.3 Gurumurthy (2011)

There is a need for women's voice in the ICT for their participation to ensure global governance and global justice. The rhetoric of ICT does not include women for their access to digital equipments. Females of south asia suffer under digital divide for prolonged reasons associated with their background realities. The issue of gender digital divide has a huge scope to address an enormous paternalism and silence on internet policies through a gender lens. Since south asian countries are so diverse in their characteristics, the gender lens must be taken into account to consider the diffusion of technology based on the rate of infrastctural, social, and economic development of the region. The architect of the internet in women's context is a voice without agency and participation without politics. Our everyday techniques of resistance and emancipation require a new politics of agency and community consciousness of the dominant tendencies of the information society.

### 2.1.4 Anthony and Padmanabhan (2014)

The importance of Rawls's two principles is explained in "In the Theory of Justice," as one protects equal liberty, and the other ensures equal opportunities for all, regardless of status. Here the second premise is critical in explaining social disparities and advocating institutional help for the socially disadvantage population. Rawls emphasizes the formal notion of 'justice' over the substantive notion of 'fairness' in order to achieve equity. If any socio-political system could accomplish fairness in institutionalizing justice, it would help to achieve 'reflective equilibrium', which is the ultimate state for any just society. Access to web-based learning expands chances for the educated,

but its lack of accessibility implies ‘injustice’ for the less fortunate. Equity issues that may occur under the spread of information technology could be addressed by using the Rawlsian ‘reflective equilibrium principle.’ It is critical to reinterpret Rawls to explore social justice and unfairness concerns in the setting of indian social systems. ICT and education should not be considered separately. Positive discrimination should be directed toward benefiting the underprivileged segments of society in the form of ICT-based education to foster a culture that is familiar with ICT and an efficient user and consumer of ICT-based processes, including education. The Indian government's initiative to provide universal education is founded on the concept of formal justice as a guiding principle. To ensure universal access to ICT and educational opportunities is one of the things required to better the lives of the weakest parts of society. However, for true empowerment of the impoverished, the realization of good, and a society with more equitable educational possibilities, ICT-enabled education must be included. Justice and empowerment must be consistently balanced to achieve reflective harmony. When access to ICT-enabled education and Universal Primary Education become inseparable, the right to education will attain a reflective equilibrium.

### 2.1.5 Gonzales (2015)

In a case study paper to explore the digital divide in U.S., 72 participants from a large and mid metropolitan city in the U.S. were included. By contextualizing the digital divide from the point of view of the initial access to maintenance of the device, all the participants were observed. The author has made an argument that a large number of the online populations in the U.S. do not represent the ability to keep access consistently. Low-income consumers will face more malfunctions, disconnections, and other additional issues associated with access restrictions. According to the strategic paradigm, those with wealth and other resources will have better digital access than the poor and disenfranchised. Using old, inexpensive, obsolete gear and not being able to maintain consistency, low-income residents are frequently left without a digital device. The lack of reliable and stable cycles of technology influences the negative attitude toward the adoption of the technology. People feel restricted to adopt new technology and later on, they bear the consequences of the fast-growing pace of technology. Being online depends on the sociological factors associated with different reasons of socioeconomic realities. On the other hand, being disconnected depends on the cost of maintenance.

### 2.1.6 Huisman and Smits (2015)

The reason for school dropout children in developing countries can be understood with the help of a 'situation-specific approach'. Factors such as socioeconomic background, ownership of resources, parental education, parent occupation, and wealth play a significant key role for the structure of the household. There are other contextual factors of educational resources such as the availability of schools and teachers and the level of development of the region. The study reveals that children with more resources, a good household structure where it is easier for them to benefit from education, and a culture where education is valued more relative to others are more likely to stay in school for a more extended period than those who lack such privileges. The situational-specific approach reflects the role of the circumstance. Children from affluent homes have better opportunities to keep up with their schooling since their parents' and grandparents' high-paying occupations provide them with better opportunities for career-related goals through the family's social capital. Parents, who have more resources, are better able to keep their children in school in comparison to those parents who are not there in a position to provide such social and capital comfort to their children.

### 2.1.7 Potnis (2015)

A study conducted on 245 slum dwellers of India, slums located around Dombivli and Shirwal urban and rural areas of Maharashtra, the western state of India explains that women have access to mobile phones exclusively through their husbands. Such women who do not hold their own personal mobile phone cannot use their husband's mobile phone with their own free will or choice. This type of access to a device does not provide women with the same level of self-confidence that comes with the ownership of a phone. Economic opportunities are scarce for women in these areas, such as not having a reliable source of income; even if it is there, it is not enough for bare minimum survival. They get paid less for the same type of labor performed by their male counterparts. Non-economic inequality affects women in several ways, according to the respondent. Women's goals and feelings were stifled compared to their male counterparts due to repressive gender norms based on unjust religious beliefs and practices. Young girls have no choice but to marry, and they are pushed to marry before they may become financially independent. The married women are not allowed to work outside of their homes from the side of husbands and in-laws. Even working women are burdened by non-earning family members such as children and elders in the home. Their husbands are either unemployed or squander their salaries on gambling and drinking. Women are denied from securing high-income jobs due to a lack of education, knowledge, and skills. As a result, their living conditions are awful, including deplorable health conditions and lack of access to

health services. There is an economic barrier relating to income, saving, and the cost of owning and maintaining a mobile phone. Their income is far less than their expenses.

### 2.1.8 Enarson et al. (2017)

The 'social vulnerability' approach is important to explain the risks of disasters that affect everyone differently in accordance with the socially distributed divisions that exist. This is because the social systems are not gender-neutral. For this feminist theorists argue, 'Whose social system is this?' When catastrophe, academics claim that disasters alter the social system. Until 1990, no major attention was paid to the purposeful examination of gender in order to study the effects of the disaster. This method effectively determines how gender stereotypes influence disaster response and emergency operations in the event of a disaster. The intersectionality of gender and developmental theorists emphasizes insufficient maternal and child health care and a lack of education for girls as key factors in gender disaster vulnerability. Disaster leaves poor women more affected by the fear of rebuilding their homes, economic loss and belongings, anxiety over health, and general safety. These women have the difficult task of reviving after a disaster because they have already suffered before. Domestic labor expands due to the disaster, putting a greater responsibility on working-class women's production and reproduction. There is a need to look inside the household as to what is there inside the household to better understand the circumstances.

### 2.1.9 Deursen and Dijk (2018)

There are two types of divides when it comes to having a digital device and having access to that device by required skills and internet connection along with suitable devices. With the penetration of the internet, the physical use of the internet has taken a large side as the second stage of the digital divide. Having internet access increases the chances of opportunities, whereas the lack of same increases the adverse effects and consequences. Their focus is on explaining the device-related opportunities and maintaining the hardware, device diversity, and maintenance expense. There are categorical disparities associated with having physical and material access to the internet and the social and technological context in which it is used. Inequalities in participation in society distinguish these groups. People with low income are more likely to own second-hand devices and experience malfunctioning hardware and software. They experience frequent periods of disconnection due to many reasons even after having an internet connection. Women are at a disadvantaged stage because they lack technical skills and are more technophobic due to internet fear, which manifests itself as an avoidant attitude toward internet usage.

### 2.1.10 Ramnik et al (2018)

The relationship between poverty and socioeconomic realities confirms restrictions on girls' mobility. The value of education placed by parents plays a vital role for the students who are school-goers and those who drop out of school. A low level of educational aspirations makes other priorities important such as correct gender performance, well-being by securing the future by getting married, and protection of sexual purity influenced by gender ideology of virginity loss. These things are predominated by the performance of domestic duties and the performativity of the gender. As a result, due to the lower social capital for education and health, the decision-making power is reduced about the awareness of sexual diseases. The dropout process goes in a vicious cycle under the circles of individual, family, and social structure that influence the child's mind for taking active participation to receive the education. Someone does not want to drop out the school consciously, but it is the environment and social structure that affect the child's educational outcome. The high number of school dropouts among the SC/ST population has been attributed to the low literacy rate. Girls whose mothers have lived in the Devdasi tradition are more vulnerable to receive educational possibilities. The capability approach, social norm theory, and gender theory help to understand the various aspects thoroughly, such as cognitive development and the ability to process and adapt the information. There are solid expectations and influence over an individual's behavior as what others do and what others expect them to do, and what will happen if one does not respect the prescribed norms. Even after modernity, the ideals of morality and purity are crucial factors for virginity protection before marriage which have remained unchanged. Trajectories of dropout girls who are there on the edges belong to deprived families. The actual cause of underperformance in school-related activities for girls is the purity norm, which leaves little room for a girl to develop and strengthen her agency and further limits her educational possibilities.

### 2.1.11 Gurumurthy (2018)

Accessing the internet is a critical component of participation in the public realm which ensures equal access to information. The knowledge horizon gets enhanced through the equal participation of the access to information. To ensure communicative citizenship in digital time is essential with the speed of technological diffusion. Questions like what does a lack of opportunity mean for a user, and how does it affect knowledge creation, legitimacy, and control in the public sphere have long lasting effects. A large section of the population is impoverished, uneducated, and lives in rural and isolated places, with women making up the majority. Because of the interaction between unavailability and low demand, the access trap occurs when most people are not online. Due to the socio-economic vulnerabilities and not being an equal participant to exploit the opportunities

provided by the digital world affects the basic citizenship of people. Their right to equal participation and access to information got altered.

### 2.1.12 Reddy et al. (2020)

Massive online education without addressing the persistent huge access gap and disparities there in digital infrastructure would not only exclude the vast majority of students from learning opportunities and their educational rights, but will also increase the socioeconomic disparities that existed already in the educational opportunities. Students under an online education trend remain with either online education or no education at all. The state and educational administration have rationalized online education as the benign patriarch under the pandemic as Hobson's choice of choosing from what is accessible or choosing nothing at all. They have claimed that 80% of households in urban India do not have access to a computer with an internet connection. Only 42% of urban households have access to the internet through any mode of digital device. The number of rural households is only 15%. Their paper raised an important frightening question 'can massive online education be inclusive when 75% and 91% of the currently enrolled students do not have access to the internet and computer with the internet, respectively. Based on the data collected from NSSO, a part of survey data on social consumption of education (75th round, held in 2017–18), they have argued that currently enrolled students did not have access to digital infrastructure, computers, or tablets with internet access in India in the year of 2017-1. As a result, digital infrastructure among students is the exception rather than the rule. How can online education be inclusive and enabling in circumstances where most registered students lack access to digital infrastructure? This is a form of exclusion from learning chances for socioeconomically disadvantaged pupils, which will impact their near future outcomes.

### 2.1.13 Tewathia at el. (2020)

The 'Mathew effect' reflects the unequal access to ICT usage. This inequality will increase socioeconomic disparities in India. Marxist and Weberian perspectives are utilized to explain asset ownership, which necessitates the acquisition of specialized digital skills that impact the labor market and transfer class advantage. This asset ownership creates an exclusive lifestyle that excludes others; as a result, the lower strata are more marginalized because they lack ICT assets and have never used them. ICT access serves as a social status indicator. In the context of ICT use and ownership, the information economy generates new types of longer-term competitive advantage. Urban India is highly informative, reflecting the social status of dominant and resource-owning castes with high technology work setting and high paid secured jobs. This helps them to gain more

administrative authority and digital skills. Individuals with higher social status are more likely to have greater access to ICT assets associated with prestige and status.

### 2.1.14 Jena (2020)

The author in his paper on the "Impact of Covid-19 on Education in India," has explored both sides of the negative and positive impacts of covid on education concerning online education delivery. According to the author, covid -19 created an urge to move toward blended learning. Students started to get adapted to soft copy learning material. The different online platform mechanisms, the rise in online meetings, and the improved use of electronic media for sharing information enhanced the use of digital literacy. The phase of the pandemic increased the demand for open and distance learning. On the other hand, the educational activity got hampered. Exams at various levels have been postponed, and classes have been suspended. The various boards have already postponed annual examinations and entrance tests. The admissions procedure has been postponed. Pupils lost most of their time during the lockdown, which should have been invested in the learning process. The situation got deteriorated to think about resuming school work after such a long gap. COVID-19 caused the majority of the recruitment to be postponed. Companies delaying student onboarding may also have an impact on student placement. Because of the epidemic, the unemployment rate is projected to rise. Because of the current circumstances, there is no recruitment in the government sector in India, and young graduates are afraid of losing their job offers in the private sector. As people struggle, their education steadily declines as unemployment rises rather than education. Teachers and students were both underprepared. Due to the school shutdown, the midday food scheme was also paused. The inaccessibility of digital equipment has hampered access to the digital world and global education.

### 2.1.15 Joshi et al. (2020)

Despite the ICT proliferation, which has increased economic opportunities, increased trade, and productivity levels, there are disparities between males and females in the usage of specific technologies. This is claimed by an investigation of slum settings of Delhi's urban slums, resulting in females being half as likely to own mobile phones as males, who are less likely to have internet access or know how to send text messages. It also includes the contribution to unequal societal participation, which reinforces the existing inequalities. Unequal access to technology displays the most striking example of the inequality between males and females. The gender gap is a significant barrier based on the structural factor of extreme poverty, a highly patriarchal society, and little confidence among women to learn ICT skills. There are presumptions that technology is reserved

for only the male section. They have further argued that having a toilet setup in the household structure plays a significant role in accessing the internet connection about being able to afford the technology. The education level of the household, not the individual education, is a big denominator in further explaining the ownership of the resource. Women's dependence on men for financial sustenance and the lack of earning household members explain the affordability to own television and digital device. Their findings imply that improving household education is critical to addressing disparities in women's access to mobile phones, the internet, and the use of text messaging in slums.

### 2.1.16 Petermen at el. (2021)

There is a need to understand health in the globalized world through an interdisciplinary approach. There are direct and indirect factors that have come as an effect of the pandemic. Numerous negative effects of the pandemic include the inability of women to leave violent partners temporarily, stress related to economic insecurity and poverty, social isolation during quarantine times, disaster and conflict-related unrest and instability, exposure to exploitative relationships as a result of changing demographics, reduced access to first responders and health services, violence and coercion against healthcare workers. These all circumstances remained challenging for people on the day today basis of lifestyle.

There are two types of explanations for violence against women and children during the pandemic: in high-income country settings and low-income country settings. Survivors are more susceptible to infection and the pandemic's long-term repercussions where economic stress and intra-familial violence go hand in hand. The reality of child malnutrition is three to four times higher in economically insecure children than in economically secure children. During the pandemic, additional unpaid care work related to caretaking and caregiving disproportionately affected women, which limited their ability to secure paid jobs and confined them to their household chores. A pandemic may affect temporary food insecurity, and an increased amount of stress occurs due to uncertain future security and economic well-being. In the case of violence, women might find difficulties leaving an abusive partner in low-middle-income countries due to their financial reality, and the preservation of family values where divorce is an uncommon practice under a social norm. There are factors such as emotional attachment, psychological distress, or fear about separation that separation will lead to an uncertain future for children if they leave their partner. The accessibility to the legal system and safety support during the pandemic were also limited because most of the official court work was being done in a home setting, which postponed hearings. This functionality of the official system has further discouraged women from reporting their incidents of violence. Due to the prioritized hearings taken by the courts on other important issues and topics during the

time of covid and unreported cases of violence, the concept of positive discrimination got hampered that is ensured in the constitution. Positive discrimination or affirmative actions help to reach the equality level with the use of equity. Introduction to free bus rides by the government of Delhi is one such initiative for empowering women in their workforce and transportation freedom.

### 2.2 Theoretical framework

As the title of the research focuses on the increased digital divide during covid and its impact on the education of girl students. A brief theoretical framework has been provided to execute the understanding of concepts with a theoretical sense by linking them with the statement of the problem.

### 2.3 Sociology of education

The sociology of education examines the patterns in which individuals' experiences affect their level of accomplishment of a purpose and its result. It is classified into two streams first as 'structural-functionalist theory' and the other as 'conflict theory'. It focuses on the importance of education in society is similar to just as a brain is essential for the human body to work out. The role-play of social institutions has a significant part in the process of socialization in which they're involved. According to sociologists like Durkheim and Talcott Parson who focused on the essentiality of education for the development of human society, each part of the society's system is concerned with the relationship of the family, education system, economy, and the polity. Education is made up of interconnected pieces that work together to provide an essential service to the overall functioning of society. The educational system is viewed as a critical place for bringing society together into a cohesive and functional system as a whole. Durkheim was the first person who proposed that a sociological approach must be used to study education. He focused on the relationship between society and its institutions where education is one of the parts as an institution in society. Durkheim sought to explain why education took the shape it is, the educational demands of different groups of society, school discipline, and the function of schools in educating young people for society play an important part. As he explained the role of education in society:

*"Education is the influence exercised by adult generations on those that are not yet ready for social life. Its object is to arouse and to develop in the child a certain number of physical, intellectual and moral states which are demanded of him by both the political society as a whole and the special milieu for which he is specifically destined". (Durkheim, 1956, p. 28)*

Prior to joining the educational institution, the joint and nuclear family serves as the fundamental institution for young children to be socialized from an early stage in their lives. There is an important role play of an adult in the life of children for their developmental growth. Adults are role model whose act influences a child in every sphere. Therefore, the responsibility of an adult becomes crucial to influence children in a positive way who can grow as responsible adults. Every individual in any society is expected to contribute to the physical, intellectual, and moral status of the society for which there is a need for responsible individuals. The development of society and humans go hand in hand where the former affects the latter and vice versa.

### 2.4 Functionalist theory: education as an integral part of human development

It is also referred to as consensus or equilibrium theory, which focuses on the essentiality of education for society. According to the functionalist theorists' education is an integral part of society, and we can't separate it from society. Durkheim expressed his thoughts about the function of schools and their link to society in his book on "Moral Education" and claimed that moral values are the cornerstone of the social order. A society is sustained through moral principles being taught at educational institutions, which assist to implant values in youngsters. Any change in society, and vice versa, reflects a change in education. In fact, education is a driving force behind the transformation, as he defined classrooms as 'little societies' or 'socialization agents'. The functionalist theory was the dominant one during the mid-20$^{th}$ century which has defined institutions as components of whole societies or social systems. According to Talcott Parsons (1937), one of the key functions of schools is to pass on the knowledge and behaviors required to keep society in order. Schools are an important training ground for children because there they learn to be social beings and establish proper social ideals through interaction with others. This theoretical approach would lead sociologists to focus on the structural aspects of the organization, such as subsystems (schools and classrooms), positions within the structure (teachers, administrators, and students), and how they work to achieve specific goals. Functionalists studied how schools operate as social institutions. Patriarchy and exploitation, as well as male supremacy, are all factors that impact on receiving an education.

### 2.5 Conflict theory: The role-play of school and cultural capital

This theory under the sociology of education expresses the counter side. Max Weber (1864–1920) developed his own approach to conflict resolution. He believed that the essential structure of civilizations is formed by power relationships between groups, in which a person's status identifies

his or her position in the group. There are ‘insiders’ and ‘outsiders’, the former whose status is reinforced by the school experience and the latter who confront obstacles to academic success. Many conflict theorists argue that school changes aimed at providing equitable access will be unattainable until society's economic and political structures are completely altered (Bowles & Gintis, 2002). A new sociological theory focuses on micro-level theories such as symbolic interaction, ethnomethodology, and phenomenology, stating that understanding micro-level features of educational institutions requires a different approach to the sociology of education. These 'new' theories in education look at classroom interaction, knowledge management, and usage. What it means to be 'educated' in various cultures, curricular topics, and other situations are fundamentally micro-level questions. Some theorists advocate for a holistic approach to education, combining macro-level institutional study with micro-level interaction analysis. A combination of macro-and micro-level techniques has been explored by Basil Bernstein and Pierre Bourdieu. The essential concept in Pierre Bourdieu's work is cultural capital, which connects the macro and micro levels. Cultural capital, for example, fluency of language, knowledge of art, music, theatre, literature, and understanding of key world ideas are ‘commodities’ that can be sold to achieve higher status in school and later in the workforce by children from higher socio-economic classes. As a result, cultural capital enables pupils to reproduce their social class through their parental position and education, which may occur at elite schools or great public schools in higher-income communities.

### 2.6 Post-modern feminist theory: Intersectionality and Context

Post-modern feminist theorists urge for increased attention to women's conditions, needs, and interests. Since, for a long time, the supremacy of white has explained most of human history, feminists believe that the account of explanation isn’t adequate to represent women's experiences around the world. Many girls and women experience injustices and discriminatory treatment in schools around the world, according to feminist theorists. They attribute these disparities to a variety of variables, including unequal access to resources. Deconstructionist feminism focuses on the importance of ‘context’ and ‘differences’ by suggesting that there are many diverse ways of being a woman. By bringing the intersectionality of race, ethnicity, class, and sexual orientation into mainstream feminist analyses, to analyze the major concerns such as violence against women, public-private distinction, paid work, and family, Kimberlee Crenshaw recommends shifting philosophy to the intersection, by putting those who are marginalized in the center. For example, in 1991, Joan Williams points out that queries about women's 'similarity' to or 'difference' from males or other women have no definitive response and are wholly contingent on context. As a result, the value of categories is also context-dependent. The individual subject, according to

deconstructionists, does not have a stable identity. Post-modern feminist raises a critical question who defines the issues to be pursued, and whose position is taken into account by whom? (Hunter, 1996) and claimed that social constructions of identity are never totalizing or complete.

### 2.7 Social Exclusion: Deprivation, Discrimination, and equality of opportunity

Rene Lenoir is widely credited with coining the term ‘social exclusion in 1974, in the context of poverty and social inequality in France. According to Lenoir individuals who were excluded are not only excluded but also the crippled, suicidal, and elderly people, abused children, and substance abusers who experience the consequences of their exclusion. During the 1980s, a period of the economic crisis of the welfare state, restructuring, and many social and political issues, the word social exclusion acquired prominence in France. The exclusion was a phrase used to describe a variety of social disadvantages arising from emerging socio-economic problems such as unemployment, ghettoization, and fundamental changes in family life. Exclusion occurs at all levels of society and is characterized by prejudice and denial of full participation in social exchanges.

Social exclusion is the breaking down of a 'social relationship.' It inhibits access to knowledge, resources, sociability, recognition, and identity, lowering self-esteem and limiting personal ambitions. Experiences of discrimination, rejection, eviction, expulsion, ineligibility, and denial of the agency are related to the process of exclusion. It is social isolation, loss of status, lack of identity recognition, and humiliation as a structural process. It has a clear link to chronic poverty, where chronic poor remain in deprived conditions for most of their lives and pass on their poverty to their children. Social exclusion is usually associated with social relationships, such as those that determine resource access. As defined by Dominic Abrams's writings of 2004, the social psychology of exclusion gives a lasting impact on an individual's personality and identity, as well as the emotional equilibrium. A person feels ashamed and embarrassed, which further constitutes shame and stigma. As Martha Nusbaum in her writing of 2005 on “inscribing the Face: Guilt and Stigma", explained that the humiliation is constructive, as opposed to the primal shame associated with the golden era.

### 2.8 Gender performance and performativity

Butler in 2009 argues in “Gender Trouble” that gender is a form of forced cultural performance necessitated by heterosexuality, and it is thus performative. She applies this method to the performativity of gender by extending the concept of forming acts beyond the constitution of identity. The production of identity is a powerful illusion that works as an object of belief. Gender

is thus an act in the sense that 'performing' gender entails is a process of long-term social performances that entail the repetition of socially established meanings.

### 2.9 Feminist ethics of care

Care ethicists questioned the moral theory's implied public/private division. Carol Gilligan (In a Different Voice, 1982), Nel Noddings (Caring, 1986), and Sara Ruddick ("Maternal Thinking," article in 1980 and book in 1989) all proposed care ethics as an alternative to the justice-oriented moral theories of utilitarianism, deontology, and rights theory that dominated western philosophy. (Keller, J at el. 2017). These early care theorists focused on different realms of life where women were the primary ethical actors such as mothering, abortion decisions, caring for the sick, old, and crippled, and caring within intimate relationships. Care theorists from a variety of fields emphasize the importance of both the labor of care and the ethics that accompany our social and political lives by redefining the concept of care as a virtue. The concept has evolved from an 'Ethic of Care' to a 'Politics of Care', where the concept of care is being emphasized as a work. Rethinking the relationship between care and gender in light of intersectional concerns, power inequalities, and the care/justice relationship where examining care as work has pushed intersectional and power analyses to the forefront of care ethics. Early feminists lack to look at care as a virtue. Simultaneously, an investigation of the political, social, and economic environment of care has paved the way for a reassessment of the relationship between care and justice.

The effects of school closure and its impact on the lives of girls during the pandemic can be understood by the theory of feminist ethics of care. Girls had to experience the pressure of doubled burden workload under their feminine expectations. Studying and helping with household chores were part of the daily life for girl students during lockdown because of the restricted movement. During the times of online classes, students' studies got impacted. On one side students were not able to participate in their online classes due to the inaccessibility of digital devices, whereas on the other hand, the stress related factor influenced their motivation and performance outcome.

### 2.10 Gender digital divide

The Marxian perspective is used to understand the ownership of internet assets and how these resources are used by the elite class. Since the use of digital assets demands a special kind of digital skills through which the elite class attracts the labor market and accumulates a special kind of class advantages. On the other hand, the Weberian perspective helps to understand the reflection of an elite lifestyle that comes as a result of having ownership of assets through the use of ICT. The lower

caste or strata people, those who do not possess such skills, remain excluded and marginalized because they never had the assets nor had the skills to use them. The exploitation of class advantage with the special kind of digital skills helps to rich get richer, and the poor get poorer, inducing the 'Matthew effect'. (Tewathia, N at el. 2020)

In the 1990s, Lloyd Morriset (President of the Markle Foundation) invented the term 'digital gap' to represent these disparities, which depict a divide between those who have access to information and those who do not. Digital divide study is an interdisciplinary endeavor that began around the year 2000 and focuses on communication science, sociology, psychology, economics, and education science. The first year of research was focused on narrowing the definition of access. (Van Dijk, 2017) General demographics, including wealth, education, age, gender, and ethnicity, were linked to physical access to digital devices. Sociological understanding to define the social capital and economic perspectives were used to explain the diffusion of technology in the market and the adaptation choices of consumers. After a while, communication and media scholars, in particular, raised their voices by addressing difficulties beyond access and user skills. Diverse applications of the internet and access complexity were re-imagined as a whole technology appropriation beyond physical access. These concerns were focused on defining the phase of the 'second-level divide', a phrase invented by Hargittai (2002), which is concerned with the psychological part of the ownership of digital devices.

Van Dijk used the phrase 'deepening divide or digital gap' in 2006 to describe the digital divide by emphasizing that inequality does not end when physical access is gained but rather begins when the use of digital media starts to incorporate into daily life. From now onwards, various observations have been noticed to explain the relationship of access and usage with social behavior, relationships, and societal impacts. The second level of the digital divide explains the categorical differences to argue that unequal access to digital technology in society leads to unfair resource distribution. Here the importance of access is linked to the use of technology. The importance of access has a significant impact on motivation, attitude, and usage. Physical access, skills access, and use access are the three types of access that are possible through social and cultural support. This is vital as it determines one's social standing and the outcomes which one receives based on that status in society. The ownership of a digital device as a resource is a cause for the differences in material access. The cost of maintenance of hardware defines the attitude behind the ownership of devices. Symptoms of internet anxiety and technophobia occur due to the avoidance of using those digital gadgets. Unequal ownership of devices and socio-economic factors are linked to age, gender, social status, employment, education level, and household composition, as well as material resources

(income), social resources (quantity and quality of support), and attitude towards the use of the internet.

An argument is made that the modern public realm appears to value voice but not agency. In present times the opium of the people is the Internet of Things (IOT) or Information and Communication Technology (ICT) mechanisms. When we consider social progress through digitalization to celebrate the diffusion of technology, we must consider the citizenship of the most excluded in the digital world since new capitalism cartographies emerge as a result of the communication network. In this digital age, the challenge is to develop a concept of communicative citizenship. An 'access trap' exists because a large section of thlauncjed world's population is not online. (Gurumurthy, 2018). The promise of the internet for equalizing access to knowledge is thus held hostage by such techno-controls that hinder the majority of the global south from participating in the knowledge society and economy. The opportunity cost of involvement in digital democracy has so far been ignored in the access debate. The practice of democracy in the digital era is the subject of network age feminism and internet policies that are based on rights. According to Fraser (2005), today's transnational public sphere creates new community constellations such as the imagined community, or nation; the political (or civic) community, the communications community, or public; and the community of fate or the set of stakeholders affected by various developments including the 'community of risk (Gurumurthy, 2018). In terms of social membership, inclusion, participation, and justice, such realignments necessitate new ways of interpreting the political normative. In many South Asian countries, the discourse of ICT access for women displays paternalism and moral panic, as well as silence on concerns related to greater openness and control of and through the digital. With the information economy's structural shifts, labor markets are likely to fragment even further, and specific skills, including increasing digital participation, are expected. People who spend more time online will gain more internet knowledge and hence improve their online skills.

## 2.11 Conclusion

It is vital to analyze the effects of any disaster through the lens of gender. The intersectionality of other concepts with gender provides an understanding to address the day today's experiences. This phase of the pandemic has given a new way of thinking to rework the pressing issues related to gender. The existed digital divide increased during the pandemic and enhanced the cleavages of differences among people regarding their ownership of resources. So far, the digital divide was seen only in terms of a gap between geospatial differences, but the gender digital divide is a need of an hour to analyze the importance of equality and freedom ensured under our Indian constitution. The epidemic phase needs to be given more serious attention since the gender digital divide has brought

urgent difficulties relating to underage age, gender discrimination, domestic violence, unprotected sex, and many issues related to women and children.

The education sector has been rampantly affected during the epidemic. The issue of school dropouts has once again become a pressing need to address. With the school closure, children have lost pace with their studies and forgotten what they have studied earlier. Students who belong to the lower economic background and disadvantaged groups have experienced missing classes and nonparticipation in the online classes. This scenario was severely impacted by the lack of ownership of digital devices, the social setting of the household structure, electricity availability, and adequate support from parents and teachers.

Digital literacy is equally essential to keep the record of digitally able and digitally deprived pupils. Issues like underage marriages, school dropouts, and digital illiteracy have come forward as a result of the pandemic. The struggle was not only in front of students but also for the teachers. Not being able to participate in online classes due to the lack of digital asset ownership or digital skills is a kind of social exclusion. The gender digital divide is necessary to acknowledge while celebrating technology diffusion. In present times it is essential for a human being to have access to information available online since the advancement of technology has not left any space untouched. Human evolution is getting shaped by the development of technology. Digital devices have taken an essential part in our day today's life experience; at this time, not having access to devices is a harsh reality to be left out of an overall development that determines physical and intellectual growth. The celebrated notions of equality of opportunity, social justice, and fair distribution of resources must be addressed to handle the digital divide and persisting gaps between individuals for different socio-economic realities. As a developing country, India will have to suffer the gaps under the persistent socio-economic differences that its masses experience each day. India’s share to combat the digital divide will depend on the levels of the digital divide between developed and underdeveloped countries on one hand, and exploiting the opportunities based on the growth of development on the other side. India, to show its mark for development, is approaching the 6G revolution for its speed of technological advancement. However, people suffer daily for different reasons for nonbeing able to equal participants. The speed of technological advancement must include those for whom it has been promised to bring a revolution.

It is essential to make people equal by ensuring the equity-based approach that can help to reach to those who are left out under shallow holes and this should be the first priority for their inclusion. Being digitally deprived is similar to not being able to access rights equally. This type of social exclusion has a prolonged impact on people's personality, well-being, and overall development. Those with all the social and cultural capital available to them will be the first to grab the

opportunity in front of them regardless of whether it is equally available. This creates a social rupture in the individual bond in society. Women and children under the increased digital divide are the most vulnerable and do not even get counted for their daily struggles. The emotional side of women during the pandemic makes her more exposed to the issue of managing her household and the responsibilities associated with her womanhood. There are multiple types of the digital divide in every sector, whether it is education, health, or employment opportunities. When addressing the digital divide in the education sector with the particular concerns of girl children and counting their experiences, it is essential to analyze the situation-specific approach that determines their capability to exploit the resource's availability and opportunities. Technophobia associated with the reasons for not having ownership of devices impacts the attitude toward owning devices which further gets determined by the cost of maintenance and care.

## Chapter - 3: Methodology and Profile of the study area

### 3.1 Research design

The researcher has used a mixed embedded research design in educational research methodology in this study. A mixed research method is a form of study that combines elements of quantitative and qualitative research methodologies. For example, the method employs quantitative and qualitative viewpoints, data gathering, analysis, and inference procedures to acquire a broad understanding and corroboration of the subject in-depth and breadth. (Johnson BR, 2007) It is beneficial to gain a more comprehensive understanding and explanation of the material which is being studied.

### 3.2 Sampling

#### 3.2.1 Sample Universe

The universe of this study comprises girl students from sixth to tenth standard government secondary schools in Ambedkar Nagar, South Delhi, India. Participants were from two schools named Government Sarvodaya Vidyalaya Ambedkar Nagar, and Government Girls Senior Secondary School.

#### 3.2.2 Sampling Method & Strategy

The researcher collected the data using a basic random sampling strategy. The primary data was acquired through an offline interview with students using a closed-ended questionnaire. The researcher created two questionnaires, one for students and one for teachers. The data was acquired anonymously by the researcher by giving google forms to teachers. The researcher created a separate email account to keep track of the data. The researcher justified her decision to pick exclusively female students based on the phenomenology of their gender performance, as well as their experiences related to the problems associated with the adoption of digital skills, having access to digital devices, and identifying variables for their participation in online classes. Online classes were difficult for girl students due to their lack of social and cultural capital, as well as their generational poverty. They struggled to adapt to distance online learning during the school closure, which remained a barrier during the pandemic.

#### 3.2.3 Sample size

54 female students from government senior secondary schools participated in an offline survey, while 26 teachers participated in an online survey using google forms. The reason behind this was

as stated in the problem statement, that students often do not own digital devices, and the study is targeted at examining the gender digital divide. On the other hand, teachers had access to digital devices, and this strategy saved time while using technology. The researcher was introduced to students with the help of her past school teacher working in the government school of Delhi, and her friend working for 'Teach For India,' a non-profit organization that works for educational development in the government schools of India. The researcher decided to conduct the interview with participants in the month of mid May, 2022. It took two weeks for the researcher to conduct the interviews with participants.

### 3.2.4 Data collection

The questionnaire for students was divided into two parts: the first part contained personal information about students and their opinions about online classes, whereas the second part contained information about their family background, such as information about their parents' income, educational level, family size, birth order, family support for studies as an extra helping hand in homework or tuition, and experiences with domestic violence. On the other hand, the questionnaire for teachers sought teachers' opinions on online classes, the strength of the class and the strength of participants during online class sessions, their level of satisfaction with the outcome of students' performance, the particular platform used for conducting online classes, and any disruptions experienced while conducting online classes. The majority of the questions were closed-ended, with a few likert scale and checklist questions used for good measure.

### 3.2.5 Tool for data analysis

The researcher analyzed the data and created several figures and tables with the help of excel. Different methods and algorithms were used to assess all of the questions. The researcher double-checked the frequency and valid percentage. Because some of the participants missed answering some of the questions, therefore the researcher has analyzed the data accordingly. Since questions were translated into hindi for some of the participants to make them aware of the purpose of the research and to ensure that their given information would be kept safe as confidential detail, the researcher has transcribed the questions from hindi to english while scrutinizing the data.

## 3.3 Operational definitions

**Digital devices**: The word "digital devices" refers to various electronic devices such as cell phones, smart phones, tablets, laptops, and computers.

**Access**: This phrase refers to the ability to use any type of digital gadget at any time.

**Online classes**: this term has been used in the study to explain the phenomenon of connection of students and teachers through virtual means to receive and deliver lectures during the lockdown period of the pandemic.

**Dependent members**: this term has been used to explain the dependency of non-earning members on the sole bread earner in the family.

**Availability of internet connection**: This explains the available option to connect virtually through mobile data, Wi-Fi, or hotspot connection.

## 3.4 Profile of the study area

### 3.4.1 Introduction

Delhi is situated in Northern India on the prime location between the great mountain ranges of the Himalaya and Aravali. The city has the latitude of 28°-24'-17' and 28°-53'-00' North and longitudes of 76°-50'-24' and 77°-20'-37' East. The total area of Delhi covers 1,484 sq kms (573.0 sq mi) with a maximum width of 48.48 kms and a maximum length of 51.90 kms. It shares borders with states including Haryana, Uttar Pradesh, and Rajasthan. The main geographical features of the city can be divided into three different parts, respectively the plains, the Yamuna flood plain, and the ridges of Aravali hills. The woods that cover the Aravali hill range are known as ridges, and they serve as the city's lungs, sustaining the city's atmosphere. It is located on the right bank of the Yamuna River, on the outskirts of the Gangetic plains, while Delhi is on the west bank of the Yamuna River. The enormous Indian Thar desert of Rajasthan state, historically known as Rajputana state, is located to the west and southwest of Delhi. Officially the city is known as the National Capital Territory (NCT), which it has held since February 1, 1992, and as a union territory of India since 1956. In 1985, interstate regional planning was established, and Delhi became the center of the region's national capital.

Since the rural-urban transition, Delhi has seen the most rapid expansion of urban areas as rural areas are rapidly transforming into urban areas in order to give economic development and provide a good quality of life for the metropolitan city. Partition was instrumental in reshaping the map and demography of Delhi by providing home sanctuary to many refugees such as Tibetans, Afghans, Burmese, Rohingya Muslims from Myanmar who arrived and settled in the city. As a result, this city has numerous hidden stories of its own and people's personal development.

South Delhi, on the other hand, is Delhi's regional administrative district with headquarters at Saket. This district is divided into three sub-districts: Saket, Hauz Khas, and Mehrauli, which are

bordered on the east by the Yamuna River, on the north by the New Delhi region, on the southeast by Faridabad district, on the southwest by Gurugram, and Delhi on the west by the Yamuna River and the New Delhi region. It occupies 250 square kilometers of Delhi's entire land area. Travelers are drawn to this city by its opulent lifestyle and breathtaking historical sites, some of which have been recognized as World Heritage Sites by UNESCO. On the other hand, abundant Slum inhabitants abound in this area. The slum sections of this metropolis are referred to as urban slums of the metropolitan city and developing at a fast pace as a result of rapid urbanization.

### 3.4.2 Climate

Delhi has a dry, humid subtropical climate in the winter and a hot, semi-arid climate in the summer. The warm season lasts from March to the end of June. The winter season starts at the end of November and lasts till the beginning of February. Winters are mild and begin in late November. With persistent fog, January remains the coldest month of the year. Temperatures typically range from 6.5 degrees Celsius from December to February and 21.1 degrees Celsius to 47 degrees Celsius during the summer. Over the last period of 70years, the meteorological department has recorded an average annual temperature of 31.5 degrees Celsius. The majority of the rain falls between the months of July and August, which are monsoon months, with an annual average rainfall of 886 mm (34.9 in). Around June 29, Delhi often experiences the start of the monsoon season. ( Kurian, V., 2007).

Delhi has experienced the massive issue of climate change due to the high amount of vehicles running on Delhi's roads on the other hand the stubble burning issue with its neighborhood states Haryana and Punjab is another reason for the smoggy environment of Delhi during winters. Smog is a mix of smoke pollution coming from stubble burning and fog during winters. Due to the smog issue, visibility also decreased during winters in contemporary times.

### 3.4.3 Soil Classification and Distribution

The soil of Delhi is generally light and has some medium-textured quality. Sandy and loamy soil represent light-textured soil, while loam silty loam represents medium-textured soil quality. Delhi's soil is appropriate for irrigating moderate numbers of salt-resistant crops like wheat, barley, and mustard. According to the report of the national capital region planning board, 1996 the region's soil is divided into four types: Khadar, which is riverine, Banger, which is irrigated by wells and canals, Dabar, which comes from low-lying rain-fed areas, and Kohi, or Pahari soil.

### 3.4.4 Flora and fauna of the city

The city's natural wildlife is represented by the ridge area which is a tropical, thorny secondary forest known as 'rakhs' or an arid, open scrub forest. The Yamuna River covers 97 kilometers of the city's total land area. The ridge area, which serves as the city's respiratory lung, is one of Delhi's most important habitats. The northern or old ridge covers the Delhi university region in the north, Kamla Nagar in the south, Rajpur Road in the east, and Malkganj in the west, which are the first of four ridges in Delhi. The Dhaulakuan ridge runs through the heart of Delhi while the south-central ridge runs through Mehrauli, Mahipalpur, and Sri Aurobindo Marg, largely through the Asola Wildlife Sanctuary Park and Bhatti Mines. The Yamuna flood plain, also known as khadar is a low-lying, sandy terrain that runs from Palla village in south Delhi to Jaitpur village in the north with a total area of 97 square kilometers. Three barrages in Delhi regulate the flow of the Yamuna River: Wazirabad, ITO, and Okhla. There are three power plants on the banks of the Yamuna River named as Rajghat, Indraprastha, and Badarpur. This flood plain along with the Yamuna River is important for the region's floral density and diversity. Wastelands, roadsides, railways, canals, and canal banks, DDA, and other parks constructed by the Delhi government forbearing cultivated vegetation in addition to the wild plant diversity drains. The historic monuments of Delhi, ponds, and lakes are all examples of agricultural fields.

The per capita tree cover in the city is a pitiful 0.002 hectares. According to an Indian forest survey, tree cover is falling due to population anxiety which explains why residents are more exposed to pollution and dust than they were previously. The smoggy weather witnessed during the winters is owing to the city's increased pollution. According to reports, the lush green ridge formerly covered approximately 15% of Delhi's land area.

Delhi is home to a wide variety of species, including wolves, leopards, foxes, jackals, Rhesus macaques, grey musk shrews, hedgehogs, mongooses, bats, nilgai, spiny-tailed lizards, insects, and birds. Neem (Azadirachta indica), Jamun (Syzygium cumini), Ber (Ziziphus mauritiana), Mango (Mangifera indica), Peepal (Ficus religiosa), Bargad (Ficus bengalensis), and Arjun (Terminalia arjuna) are among the shady trees found in Delhi's flora. Gulmohar (Delonix regia), Champa (Magnolia champaca), Amaltas (Cassia fistula), and other floral plants have made their homes in Delhi. The Yamuna region is home to a variety of fish, plants, weeds, algae, and grasses, which draw migrating birds and other creatures such as Pigs, Foxes, Hares crocodiles, Gharial, and Testudines on its banks.

The famous Najafgarh drain located in Dwarka, in the southwest of Delhi, was once a natural drainage system, the largest in Delhi, with a lot of aquatic and terrestrial biodiversity surrounding it as well as migratory birds visiting throughout the year. The ridge forest, on the other hand, has seen a significant decline in greenery as a result of urbanization and industrialization, but it still exists in small five-green discrete areas. These include areas near Delhi University (Northern Ridge with an area of 87 hectares), a large green cover near Dhaula Kuan (Central ridge extending from South of Sadar Bazar to Dhaula Kuan, though discontinuous), Sanjay Van (626 hectares of forest cover area near Jawahar Lal University JNU called South Central ridge), Tughlaqabad (The Southern ridge with an area of 6200 hectares) and the Nanakpura. On April 10, 1980, the Lt. Governor of Delhi declared 25 locations as protected forest areas under the Indian Forest Act 1927 due to continued encroachment and degradation of the ridges. The Northern, Central, and South-Central ridge areas were among them.

Parts of the ridge have been made into artificial gardens, recreational parks, and lakes, such as Buddha Jayanti Park, Lodi Garden, Sanjay Gandhi Park, and Mahavir Jayanti Park, in order to preserve the green cover. Delhi has been a fortunate city for its natural heritage. The Aravali Biodiversity Park, which spans 692 acres, is home to 198 bird species, 900 plant species, 109 butterfly species, 25 reptile species, 17 animal species, and 20 forest groups. Shallaki/Salai, Kadai, Khejari, Dhaw, Kapar, and Kadaya are all notable plant species in this area. It has a butterfly conservatory, an orchidarium, and a fernery. The Asola Bhatti Wildlife Sanctuary is home to various species, including the blue bull (India's largest antelope) and the blackbuck, the fastest land animal surviving in the wild. Porcupines, Civets, Jackals, Jungle Cats, and Leopard are all black-naped hares. Sanjay Van Forest, located on the South Central Ridge, is home to over 150 bird species, including the rare and exquisite Purple Sunbirds, Asian Koel, Brahminy Straking, Indian silver bill, and grey breasted Prinia.

Yamuna Biodiversity Park features a diverse range of yielding trees and medicinal herbs spread across 457 acres of wetlands and grassland. It has around 800 plant species, including Asan, Haldu, Jungle Kadamb, Harar, Behera, Gurjan, and Simul, as well as 200 bird species and 70 animal species. It also serves as a habitat for migratory ducks, red-wattled Lapwings, and other grassland birds, as well as a conservatory for endangered flora. The Lodhi Garden neighborhood is home to a large and exquisite Bougainvillea tree, one of the only two in Delhi. Deer, gorgeous peacocks, guinea pigs, bunnies, and birds live at Deer Park which is located in the south Delhi region. Some of the most prevalent animal species in Delhi are the mongoose, Indian hare, hedgehog, porcupine, nilgai, jackal, monitor lizards, rhesus macaque, fox, rat, snake, and bullfrog. (Saxena at el. 2021)

### 3.4.5 Political history and Administrative setup before and after Independence

British regulations had governed Delhi since 1805 when they were established under the control of the resident and chief commissioner of Delhi and were continued with occasional changes until 1857. In the year 1858, Delhi was designated as a provincial town of the frontier province. Until 1950, it was administered directly by the Indian government through a Chief Commissioner. The Delhi committee was established on March 25, 1913, to oversee the development and administration of the new capital's civic affairs.

In December 1953, the States Reorganization Commission was established, and it was recommended that Delhi be kept under the effective supervision of the national government as a national capital. The group also recommended the formation of municipal corporation districts. The municipality became MCD as a result of the committee's recommendation. In 1957, the parliament passed the 'Municipal Corporation of Delhi Act,' which resulted in the formation of a municipal corporation with elected members in 1958. The Delhi Development Act of 1957 established the Delhi Development Authority.

As a result, on November 1, 1956, the Delhi Council of Ministers and Legislative Assembly ceased to exist. The 69th Constitutional Amendment, which included the insertion of Article 239 AA and the passing of the Government of National Capital Territory of Delhi Act, 1991, brought another alteration to Delhi's administrative structure. Until the Delhi Administration Act, 1966 came into effect, the President of India managed Delhi as a Union Territory through a Chief Commissioner nominated under Article 239 of the Constitution.

DDA released the first master plan (1961-1981) in 1962. In 1978, the Delhi Police Act was passed, putting the city under the control of the police commissioner. The city currently has 11 districts and 33 subdivisions. The MCD has been in the hands of five bodies since 2012, namely East Delhi Municipal Corporation, North Delhi Municipal Corporation, South Delhi Municipal Corporation, New Delhi Municipal Corporation, and the Delhi Cantonment Board, following the trifurcation. The number of districts has grown from nine to eleven so far.

The president's office, known as Rashtrapati Bhavan, is located in the Parliament building. In addition to the Cabinet Secretariat, the nation's largest court, the Supreme Court of India is also based in New Delhi. Delhi has a total of seven district courts- Tis Hazari Court Complex, Karkardooma Court Complex, Patiala House Court Complex, Rohini Court Complex, Dwarka Court Complex, Saket Court Complex, and Rouse Avenue Court Complex. The Consumer Courts,

CBI Courts, Labour Courts, Revenue Courts, Army, Electricity, Railway, and other tribunals are all working to thrive in Delhi. Delhi, as the country's national capital, serves as a key location for the country's governance needs.

### 3.4.6 General demography of the city

The National Capital Territory of Delhi spans 1,483 square kilometers, with 1114 square kilometers categorized as urban and 369 square kilometers designated as rural. It is bordered on the east by Uttar Pradesh and Haryana on the other side. (Economic survey of Delhi 2020-2021) The Government of National Capital Territory of Delhi Act, 1991 established Delhi as the National Capital Territory.

According to the 2011 census, Delhi, as a fully urbanized city has a greater rate of workforce growth than the national average. There were 31.61 percent of main workers, and 1.67 percent of minor workers have been reported under the census. Those who have worked for 183 days or more are considered main workers, whereas those who have worked for fewer than 183 days are considered marginal workers. Nonworkers account for 66.72 percent of the overall population. In Delhi, 95 percent of the population, including both men and women, work in the industrial and tertiary sectors, while only 0.60 percent of the population works in agriculture. Female workers account for only 14 percent of the total workforce. According to the 68th round of the NSSO from June 2011 to June 2012, 33.39% of the estimated population is employed. Delhi, as a metropolis offers a diverse range of opportunities, including healthcare, pharmaceuticals, media, entertainment, information technology, and IT-enabled services. Their offshore centres are located in several locations throughout Delhi.

According to the 2011 census report, Delhi's overall population was 16,787,941 (1.68 crores, up from 1.39 crores reported in 2001), with 8,987,326 males and 7,800,615 females. The overall population growth rate in 2011 was 21.21 percent, compared to 46.31 percent in the preceding decade of 2001. In 2011, Delhi's population accounted for 1.39 percent of India's overall population, up from 1.35 percent in 2001. 68.23% of dwellings were owned, while 28.18% were rented. The sex ratio has risen from 821 in 2001 to 868 in the 2011 census survey, while the child sex ratio has risen from 868 in 2001 to 871 in 2011, while India's overall child sex ratio rate has risen to 918.

In 2011, the total child population (0-6) increased to 2,012,454 from 2016,849, with males accounting for 1,075,440 and females accounting for 1,079,618. The literacy rate has increased

from 81.67 percent in 2001 to 86.21 percent in 2011. The male literacy rate has risen from 87.33 percent in 2001 to 90.94 percent in 2011, while the female literacy rate has risen from 74.71 percent in 2001 to 80.76 percent in 2011.

The overall number of literates reported in 2011 was 12,737,767, up from 9,664,764 in 2001. In 2011, the total number of male literates increased to 7,194,856 from 5,700,847 in 2001, while the total number of female literates increased to 5,542,911 from 3,963,917 in 2001.
The urban population of Delhi accounts for 97.50 percent of the population, while the rural population accounts for only 2.50 percent. The overall number is 16,368,899 in urban areas and 419,042 in rural areas. In urban regions, there are 8,761,005 men and 7,607, 894 females; in rural areas, there are 226,321 males and 192,721 females (Census 2011). In 2011, the sex ratio in urban areas was 868 females per thousand males, while in rural regions, it was 852. In urban areas, the child sex ratio (0-6 age group) was 873 girls per 1000 boys, while in rural areas, it was 814. The total number of children is 1,955,738 in urban areas and 56,716 in rural areas, with an overall percentage of 11.95 percent in urban areas and 13.53 percent in rural areas.

In urban areas, the literacy rate was 86.32 percent, while it was 81.86 percent in rural areas. In urban areas, males make up 90.98 percent of the population, while females make up 69.06 percent, while in rural areas, males make up 89.37 percent of the population, and females make up 60.87 percent. The overall number of literates was 12,441,167 in urban areas and 296,600 in rural areas.
The economic survey of India 2021-22 reported that the birth rate (number of live births per thousand of the population in a year) of Delhi NCT was 14.4. The death rate (number of deaths per thousand of the population in a year) was 3.2, and infant mortality (number of infants death for every 1000 live births) was 11 in the year 2019. In contrast, India's total birth rate was 19.7, the death rate was 6.0, and the infant mortality rate was 30 under the per 1000 no. of the population. (Source: Ministry of Home Affairs, Office of the Registrar General of India).

Households with tap/hand pump/tube wells are found in 95.0 percent of all households, with 87.9% being rural and 95.2 percent being urban. According to several rounds of quarterly Periodic Labor Force Survey (PLFS) bulletins and Ministry of Statistics and Programme Implementation reports, the labor force participation rate was 35.6 percent in January-March, while the workers' population was 32.7 percent in January-March 2021. In the same year and month, the unemployment rate was 8.1 percent. According to the national family and health survey (2019-21), the death rate in Delhi was 24.5 percent, down from 31.2 percent in the previous survey in 2015-16. According to the same survey, 21.8 percent of Delhi's underweight children under the age of five are underweight.

The total fertility rate of Delhi is 1.6 the no. of children per woman in the year 2019-21 declined from the previous year, which was 1.8.

According to the economic survey of India 2021-2022, Delhi received 68 points for its performance on the sustainable development aim. It received 75 points for achieving SD4 for educational quality. Delhi has been dubbed India's start-up capital city, a title previously held by Bangalore. In 2021, the city had reported 5000 registered start-ups in its list reported by the survey.

### 3.5 South Delhi

South Delhi district is ranked third in terms of area share, accounting for 16.7 percent of Delhi's total area. It covers a variety of ranking scales for various parameters, such as it comes on second place for its population size. It ranks sixth in terms of density, seventh in terms of sex ratio, sixth in terms of literacy rate (with an 86.6 percent literacy rate), and third in terms of the proportion of the population between the ages of 0 and 6. It is ranked fourth for female labor participation, higher than the state average.

In 2011, the entire population of South Delhi was estimated to be 27.32 lakhs, with a male population of 2,731,929 and a female population of 1,467,428. South Delhi has experienced a population rise of 20.51 percent, accounting for 16.27 percent of Delhi's total population. In 2011, the sex ratio per thousand was 862, up from 799 in 2001, and the child sex ratio was 885, down from 888 in 2001. The male literacy rate was reported to be 91.73 percent, while the female literacy rate was 80.55 percent. The literacy rate of both males and females increased in the 2011 census survey compared to the previous data from 2001. The proportion of children aged 0 to 6 in the population was 12.12 percent, with boys accounting for 11.97 percent and girls for 12.29 percent.
According to the 2011 census for houseless people data, 4,204 families were living on the street or without a roof over their heads. Only 0.45 percent of the population of the South Delhi district resides in rural areas, with 99.55 percent of the total population living in the district's urban areas.
The sex ratio in the South Delhi district's urban area was 862 females per 1000 men and 788 females per 1000 males in rural areas, while the child sex ratio was 885 in urban and 928 girls per thousand boys in rural areas. South Delhi's child population is 11.96 percent of the total urban population and 13.67 percent in rural areas. According to the 2011 census, the average literacy rate in the South Delhi district is 86.60 percent, with males and females literate at 91.76 percent and 80.60 percent, respectively. The average literacy rate in rural areas was 78.26%, with male and female literacy rates of 85.54 and 68.75 percent, respectively.

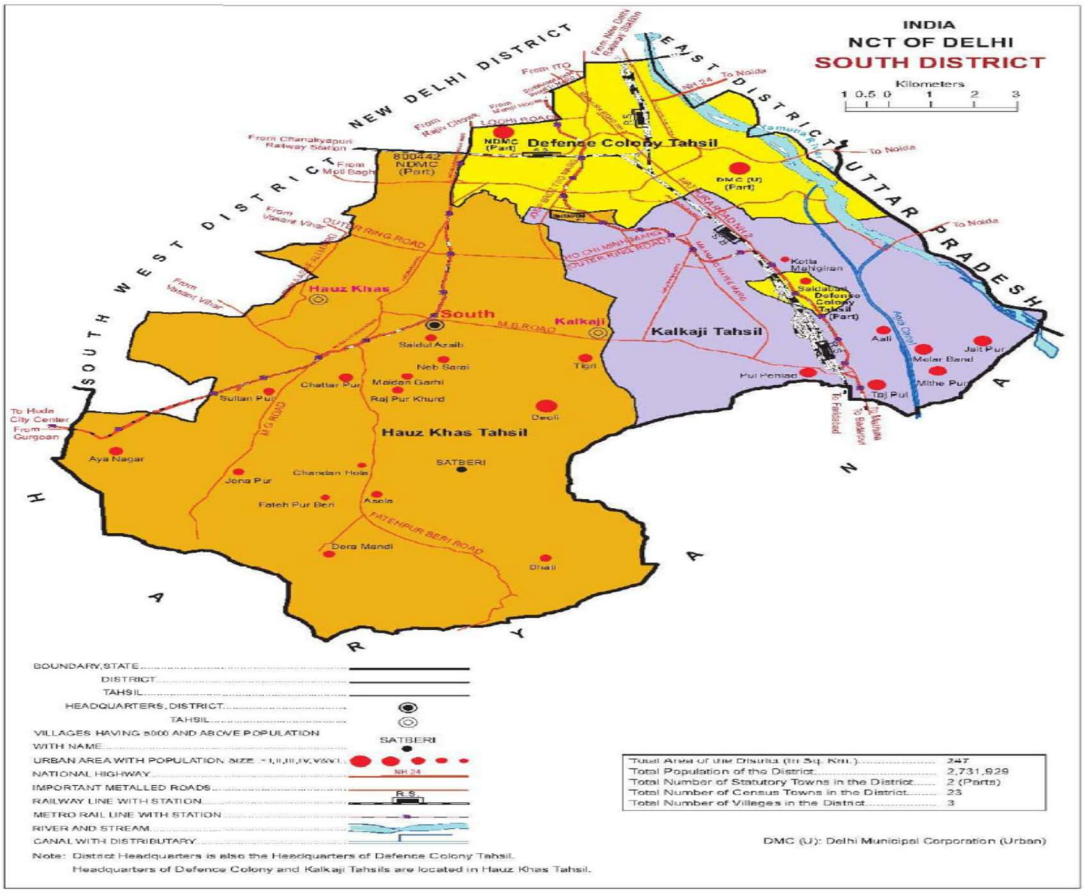



Fig:1 Map of NCT of Delhi, South District

Source: Census of India 2011 NCT of Delhi, Series – 08, Part XII-B District Census Handbook of All the Nine Districts, Directorate of Census Operations, Delhi.

## Important Statistics (South)

| | | | State | | District | |
|---|---|---|---|---|---|---|
| Number of Villages | | Total | 112 | | 3 | |
| | | Inhabited | 103 | | 3 | |
| | | Uninhabited | 9 | | - | |
| Number of Towns | | Statutory | 3 | | 2 (part)* | |
| | | Census | 110 | | 23 | |
| | | Total | 113 | | 23+2(parts) | |
| Number of Households | | Normal | 3,407,586 | | 568,863 | |
| | | Institutional | 5,238 | | 1,066 | |
| | | Houseless | 23,175 | | 4,204 | |
| Population | Total | Persons | 16,787,941 | | 2,731,929 | |
| | | Males | 8,987,326 | | 1,467,428 | |
| | | Females | 7,800,615 | | 1,264,501 | |
| | Rural | Persons | 419,042 | | 12,193 | |
| | | Males | 226,321 | | 6,819 | |
| | | Females | 192,721 | | 5,374 | |
| | Urban | Persons | 16,368,899 | | 2,719,736 | |
| | | Males | 8,761,005 | | 1,460,609 | |
| | | Females | 7,607,894 | | 1,259,127 | |
| Percentage Urban Population | | | 97.5 | | 99.55 | |
| Decadal Population Growth 2001-2011 | | | Number | Percentage | Number | Percentage |
| | | Persons | 2,937,434 | 21.21 | 464,906 | 20.51 |
| | | Males | 1,380,092 | 18.14 | 207,403 | 16.46 |
| | | Females | 1,557,342 | 24.94 | 257,503 | 25.57 |
| Area (in sq Km.) | | | 1483 | | 247.00 | |
| Density of Population (Persons per sq Km.) | | | 11320 | | 11060 | |
| Sex Ratio | | Total | 868 | | 862 | |
| (Number of females per 1000 males) | | Rural | 852 | | 788 | |
| | | Urban | 868 | | 862 | |

* The state comprisis of only three statutory towns i.e. DMC (Delhi Municipal Corporation), NDMC (New Delhi Municipal council) and Delhi Cantonment. Only one town, Delhi Cantonment is fully located in one district alone i.e. South West. The location of remaining two towns is spread over in more than one district.

Fig:2 Important Statistics (South)

Source: Census of India 2011 NCT of Delhi, Series – 08, Part XII-B District Census Handbook of All the Nine Districts, Directorate of Census Operations, Delhi.

| Important Statistics (South) | | | | | |
|---|---|---|---|---|---|
| | | State | | District | |
| | | Number | Percentage | Number | Percentage |
| Literates | Persons | 12,737,767 | 86.21 | 2,078,402 | 86.57 |
| | Males | 7,194,856 | 90.94 | 1,185,036 | 91.73 |
| | Females | 5,542,911 | 80.76 | 893,366 | 80.55 |
| Scheduled Castes | Persons | 2,812,309 | 16.75 | 422,926 | 15.48 |
| | Males | 1,488,800 | 16.57 | 223,199 | 15.21 |
| | Females | 1,323,509 | 16.97 | 199,727 | 15.79 |
| Scheduled Tribes | Persons | - | 0 | - | 0.00 |
| | Males | - | 0 | - | 0.00 |
| | Females | - | 0 | - | 0.00 |
| **Workers and Non-Workers** | | | | | |
| Total Workers (Main and Marginal) | Persons | 5,587,049 | 33.28 | 924,393 | 33.84 |
| | Males | 4,762,026 | 52.99 | 775,592 | 52.85 |
| | Females | 825,023 | 10.58 | 148,801 | 11.77 |
| (i) Main Workers | Persons | 5,307,329 | 31.61 | 869,086 | 31.81 |
| | Males | 4,562,710 | 50.77 | 735,535 | 50.12 |
| | Females | 744,619 | 9.55 | 133,551 | 10.56 |
| (ii) Marginal Workers | Persons | 279,720 | 1.67 | 55,307 | 2.02 |
| | Males | 199,316 | 2.22 | 40,057 | 2.73 |
| | Females | 80,404 | 1.03 | 15,250 | 1.21 |
| Non-Workers | Persons | 11,200,892 | 66.72 | 1,807,536 | 66.16 |
| | Males | 4,225,300 | 47.01 | 691,836 | 47.15 |
| | Females | 6,975,592 | 89.42 | 1,115,700 | 88.23 |
| **Category of Workers (Main & Marginal)** | | | | | |
| (i) Cultivators | Persons | 33,398 | 0.6 | 2,984 | 0.32 |
| | Males | 27,458 | 0.58 | 2,412 | 0.31 |
| | Females | 5,940 | 0.72 | 572 | 0.38 |
| (ii)Agricultural Labourers | Persons | 39,475 | 0.71 | 5,908 | 0.64 |
| | Males | 31,352 | 0.66 | 4,801 | 0.62 |
| | Females | 8,123 | 0.98 | 1,107 | 0.74 |
| (iii)Workers in household industry | Persons | 181,852 | 3.25 | 25,081 | 2.71 |
| | Males | 152,758 | 3.21 | 20,897 | 2.69 |
| | Females | 29,094 | 3.53 | 4,184 | 2.81 |
| (iv) Other Workers | Persons | 5,332,324 | 95.44 | 890,420 | 96.32 |
| | Males | 4,550,458 | 95.56 | 747,482 | 96.38 |
| | Females | 781,866 | 94.77 | 142,938 | 96.06 |

Fig:3 Important Statistics (South)

Source: Census of India 2011 NCT of Delhi, Series – 08, Part XII-B District Census Handbook of All the Nine Districts, Directorate of Census Operations, Delhi.

### 3.6 Economic growth and industrial expansion

The economic survey of Delhi 2020-21 reported that in 2019-20, Delhi reported 722663 net state domestic production with 10.64% growth and a contraction of 3.92%. It has the highest per capita income, which is three times greater than India's per capita income. Delhi's economy is the 13th largest among India's states and union territories. In 2020-21, Delhi's anticipated GSDP was around 15.98 lakh crore. Because of its consumer market and trained workforce, Delhi has become a magnet for global investment. Information technology sectors, telecommunications, hotels, banking, media, and tourism are among the primary services accessible in Delhi along with construction, power, health, and community services. Google, HCL Technologies, TATA Consultancy Services, and other major IT companies have their offices situated in Delhi. Gurugram and Noida are satellite cities in the Delhi NCR region with the DLF cyber hub's eye-catching infrastructure. In the fiscal year 2019-20, Delhi's per capita income was reported to be $54,001. In the year 2020-2021, the gross state value-added number was reported to be 84.59 percent, with the primary sector accounting for 1.85 percent and the secondary sector accounting for 13.56 percent.

### 3.7 Education

Under the AAM AADMI government administration, Delhi has spent 23.83 percent of its total budget allocation on education out of a total budget of 29,500 crores. This demonstrates that education was a top priority for Delhi in the years 2020-2021. According to the economic survey of Delhi 2020-21, there are a total of 1230 government and government-aided schools in Delhi, accounting for 37.18 percent of overall enrollment in 2019-20, whereas private school enrollment accounts for 42.65 percent. According to data released by the Unified District Information System for Education (UDISE) in 2019-20, Department of School Education & Literacy, and All India Survey on Higher Education (AISHE) 2019-20, Delhi's gross enrolment ratio for elementary schools (I-VIII standard) is 121.3 percent, with 119.2 percent boys and 123.7 percent girls, and secondary schools (IX-X) enrolment stands at 110.3 percent. These results show that girls have a higher involvement rate.

### 3.8 Slums of Delhi

According to the 69th round of the NSS survey conducted during July 2012- December 2012, the definition of slum has been defined as illegally occupied locations that arise as a result of the expansion of industry in and around cities. People migrate to cities for better employment opportunities with the rise in lifestyle. Though slums provide a plentiful supply of unskilled and semi-skilled labor to the demand created by industrial expansion, they also strain existing civic services.

Whereas according to the United Nations, a slum is defined as those locations where one group of people reside under the same roof in a city who lack one or more of the following characteristics related to amenities such as durable housing (a permanent structure that protects from extreme weather), sufficient living space where no more than three people are sharing the same room), access to improved water (water that is sufficient, affordable, and easily obtained), access to improved sanitation facilities, a private toilet, or a public toilet that can accommodate a fair number of persons, and ensure job security. (de facto or de jure secure tenure status and protection against forced eviction). According to the Indian census, the classification of slums has been defined into three types, namely Notified, Recognized, and Identified. The second type describes all locations acknowledged as "slums" by state, union territory, or local government administrations. Under any laws, housing and slum boards, but not legally registered as slums under any laws, are called recognized slums. The third type of classification describes a densely populated area of at least 300 people, or approximately 60-70 homes, with poorly constructed packed tenements in an unsanitary environment, frequently with inadequate infrastructure and sanitary and drinking water services.
Slum areas suffer from issues related to illiteracy, housing, drinking water facility, and health hazards due to miserable and unhygienic conditions of living. Census of India 2011 has notified that Delhi comprises 10.9% of the population of the total slum population in India. (Census, 2011). Slums often have a negative connotation with their identity recognition. As a result, eradicating slums has always been a top objective for numerous administrations when it comes to urban planning. It becomes an important job of elite homes to modernize a city through the encroachment of slums.

The city of Delhi has witnessed the history of eviction and resettlement of slums in every master plan vision seen by the government of Delhi. As the central space of political power and administration, Delhi's history of political contestations has shaped its housing practices for the urban poor to make the city slum-free under the liberal welfare state through the contribution of public and private partnerships. The 1956 Slum Areas (Improvement and Clearance) Bill gave the government legal authority to intrude on private property. The purpose of the 1956 Act was to remove slums and replace them with better (less congested) homes for the residents. A massive demolition of slums became the practice when India hosted the Commonwealth Games in 2010. (Palat Narayanan, N., 2020). Where at the one hand Delhi as a metropolitan tier one city provides a bundle of opportunities and shiny lights in tall buildings, but its slum describes the daily struggle of people residing in its dingy places.

### 3.9 Conclusion

Delhi's people and land have seen tremendous growth. Being the heart of India and the capital city, it attracts people looking for new opportunities and promises to help them survive. Delhi is one such city where diverse groups of people can be found, regardless of religion, region, language, or profession. In a capitalist system, the presence of the working class is always present to serve the economic elite class, and Delhi is a prime example of this. The presence of slums describes the daily struggle of delhi residents who leave their homes and come to work every day to gain hard-earned money. Because of their small house sizes, slums generally lack basic amenities such as water and sanitation. Delhi's slums differ from other slum settings simply because of the city's ongoing activities. While the city's drastic development has provided some good opportunities, social ties remain uneducated in terms of dreaming big for the future. People spend their lives in the same house setting because they cannot afford to live their lives as they wish. Education in slums is critical for raising awareness and assisting people to empower them for exploiting opportunities available to them. The history and culture of this city are known among strugglers to provide them ease, but their reality of survival describes an entirely different story. Living in a slum setting appears to be a difficult task in terms of evaluating basic survival needs. However, people continue to stay and live their lives. The slums of Delhi require proper recognition because when students in government schools mention their household's location, their pride is hidden beneath general stereotypes based on slums. Because of the nature of the professional occupation, which is generally unsecured and falls under the informal economy, slum dwellers remain untouched from gaining social and cultural capital.

## Chapter - 4: Digital Divide and Exclusionary Practices in School: Findings and Analysis

### 4.1 Introduction

This chapter discusses a detailed understanding of the objectives of the research. Main objectives such as the participation of girl children in online classes, absenteeism during distance online classes, learning motivation among students, experiences of depression and stress and reasons behind, reasons for their lack of participation in productive activities, and changes in how girl children have received education during the pandemic. The first section explains the data of students as targeted respondents by describing their personal information and their views and data related to their family background, whereas the second section provides the information from teachers as targeted respondents and their views on online classes.

### 4.2 Demographic profile of the participant students

| Age | Percentage |
|---|---|
| 8 years | 1.85% |
| 9 years | 1.85% |
| 10 years | 3.70% |
| 11 years | 9.25% |
| 12 years | 11.11% |
| 13 years | 24.07% |
| 14 years | 25.92% |
| 15 years | 22.22% |
| | 100 |

Table.1 Percentage of participants according to their ages

The above table indicates the number of individuals and percentages of different age groups. The majority of the students were from the age group of 13 to 15 years old, which explains the level of their class standard in school.

| Religion | No. of Participants | Percentage |
|---|---|---|
| Hindu | 51 | 94.4% |
| Muslim | 3 | 5.5% |
| | 54 | 100 |

Table.2 Percentage of students with respect to their religion.

The majority of the students belonged to the Hindu household communities which comprise 94.44%, whereas only 5.55% of students from the participated members belonged to the Muslim community.

| Category | Percentage |
|---|---|
| General | 16.66% |
| OBC | 24.07% |
| SC | 48.14% |
| ST | 11.11% |

Table.3 Percentage of students with respect to their category

To keep the objectives in mind, the targeted population was based on category stratification. The majority of households with lower economic background belonged to the scheduled caste as they are 48.14% of respondents. As the table indicates, the data for the general category is 16.66%, OBC is 24%, and ST is 11% respectively. The researcher observed the daily way of lifestyle based on the different caste categories of the participants during the fieldwork. accessibility

| Standard | No. of participants | Percentage |
|---|---|---|
| 5th | 1 | 1.85% |
| 6th | 9 | 16.66% |
| 7th | 6 | 11.11% |
| 8th | 30 | 55.55% |
| 9th | 8 | 14.81% |
| | 54 | 100 |

Table.4 Percentage of students with respect to their standard

The majority of the participants were from the 8th standard, which showed the maturity level of the respondents to understand the situation thoroughly and take willingness to participate in the survey. As this standard is middle of the secondary education level, the researcher observed the idea that this standard is the trajectory to reach the higher level of studies, during this time teachers expect students to become more aware and serious about their studies and accordingly the grooming of students plays an important part in the schools.

| Name of the School | No. of participants | percentage |
|---|---|---|
| Government Sarvodaya Vidyalaya Ambedkar Nagar | 46 | 85.18% |
| Govt. girls senior secondary school | 8 | 14.81% |
| | 54 | 100 |

Table.5 Percentage of students with respect to their school

Two types category of government school is highly dominated in the locality. Largely parents choose to send their children to these schools. Girl participants from Sarvodaya Vidyalaya were chosen for the fieldwork as targeted respondents. The majority of the respondents were from Government Sarvodaya Vidyalaya which is 85% of the total no. of respondents, whereas 14.81% of respondents belonged to the background of schools which are particularly girls schools. The researcher has observed that parent's choice to send their daughters to these separate schools is based on the gender bias to keep the girls separate from boys for their protection and keeping them away from mingling with boys for any unwanted events of falling in love in small age or getting attracted towards the other sex. Parents tend to believe that girls need to be protected and that keeping their virginity until marriage is crucial for girls. The presumptions of Indian society around the protection of virginity are viewed as important whereas premarital sex is prohibited, these concerns have been the focus of feminists. Considering these presumptions, parents would rather send their female children to a girl's school than a coed one.

| Response | Percentage |
|---|---|
| Yes | 66.67% |
| No | 33.33% |

Table.6 Percentage of students with respect to their accessibility to the digital device

From the above data, 66.66% of respondents were having access to digital devices whereas 33.33% of respondents said that they do not have any type of digital device in their home. For respondents who have said yes to access, this type of ownership is the determining factor to their participation in online classes. Students without access to digital devices were unable to learn moral lessons because, according to the functionalist theory of sociology, schools play a crucial role in instilling values in children and serve as miniature societies. The lack of access to digital equipments places pupils at a disadvantage for their human and personal development, as articulated by Durkheim and Talcott Parson that schools and classrooms are training grounds for children's development. According to the access hypothesis of the digital divide, students who have access to digital devices have higher opportunities to take advantage of opportunities and reap benefits. However, there will always be a gap between students who have access to devices and those who do not. Those who do not have access to digital devices are excluded and therefore denied from the online education delivery based on the theory of social exclusion explained by Hilary Silver in her seminal work.

| Response | Percentage |
|---|---|
| Yes | 75.92% |
| No | 24.07% |

Table.7 Percentage of students with respect to their ability to attend online classes

Overall 75.92% of students were able to attend online classes from the respondents through the means of having access to digital devices but this access was not solely their own or family ownership to the devices, during the online class sessions some of the respondents responded that they have borrowed the devices just to mark their presence in the class. On the other hand, 24% of total respondents were not at all able to attend any online class due to the lack of a device or any other reason explained in the coming section. The affordability for the ownership of digital devices depends on the family’s income where the poor are getting poorer and the rich are becoming richer in a context where the digital device is a means to attain all the benefits coming from an online class

and non participation for same left the student with fewer options and restricted opportunities in the near future for their skills and personality development for the employment market.

| Frequency | Percentage |
|---|---|
| Regular | 24.07% |
| Sometimes | 75.92% |

Table.8 Percentage of students with respect to their frequency of attending online classes

The frequency for attending online classes is determined by the various factors related to the ownership of digital devices, availability of electricity, interest in the classroom, motivation to attend the class, etc. 24% of respondents continued to take participation in online classes regularly whereas 75.92% of respondents reacted that they were participating for online classes but the pace was not regular, there was a fluctuation in frequency for their active participation. The frequency for attending online classes depends on various factors such as availability of resources, a good household structure where it is easier for students to benefit from education, and a culture where education is valued more relative to other things. These factors determine the stay of students to become beneficiaries received by education as explained by Huisman and Smits in their study done in 2015.

| Reasons | Percentage |
|---|---|
| Lack of Digital Device | 12% |
| Lack of Internet connection | 33% |
| Unstable Internet connection | 30% |
| Electricity unavailable | 19% |
| Any other reason | 6% |
| | 100 |

Table.9 Percentage of students with respect to the reasons for not attending online classes

Respondents reacted for various reasons responsible for not attending the online class and were counted multiple times in all the options as reasons responsible. Those who were attending the online classes had also issues such as lack of internet connection and unstable internet connection or non availability of electricity which resulted in a fluctuated frequency in their participation such as

33% of students had a lack of internet connection, whereas 30% of students had an unstable internet connection, these students had responded that though they joined for online classes however due to the unstable connection they were facing difficulties of joining and rejoining. 19% of students had issues with electricity unavailability. They have responded that due to the abrupt cut in electricity their participation got affected and they left from the classes. In such situations, students did not have a chance to inform the teachers about their leaving. 6% of students responded with any other reasons. 12% of students did not have digital devices. On the other hand, the respondents answered that even if they did not have their ownership or family's ownership to devices, they borrowed the devices to attend classes.

| Devices | Percentage |
|---|---|
| Mobile phones | 94% |
| Laptop | 2% |
| Both | 2% |
| Any other | 2% |

Table.10 Percentage of students with respect to devices used to attend online classes

The above table indicates which particular device has been used by the respondents to attend online classes. The majority of the participants joined online classes through mobile phones. The reason behind the mobile phone has been explained as a compatible device to use and also the cost for the ownership and maintenance. Respondents reacted that owning a laptop is not possible for them whereas even the mobile phone's cost seems heavy in various circumstances of low income and dependency of family members on single bread earner.

| Status of the device | Percentage |
|---|---|
| Good Condition | 36.95% |
| Bad Condition | 34.78% |
| Uncertain | 28.26% |

Table.11 Percentage of students with respect to the condition of their digital device

To respond to the question related to the running status of the device, 36.95% of respondents reacted that their devices were running in good condition, whereas 34.78% responded that their

device was in bad condition which hampered their use and their participation in online classes. The uncertainty factor reflects the no. of respondents who were not aware of the malware functioning of the device and therefore not using the devices purposefully.

| Response | Percentage |
|---|---|
| Repaired | 16.66% |
| Not repaired | 77.77% |
| Uncertain | 5.55% |

Table.12 Percentage of students with respect to expenses on repair of digital device

The above table indicates the results of those who were facing difficulties in malware functioning and bad condition of the devices and therefore the necessity to repair the devices. Only 16.66 percent of respondents had repaired their device whereas 77.77% did not repair the devices due to not having enough amounts for the restoration. 5.55% of respondents were doubtful about going with the repairing choice with the assumption that they have to invest their time and amount for repairing. The repairing factor determines the reason for being connected digitally or disconnected as Gonzales in 2015 elaborated that being disconnected depends on the cost of maintenance of the digital device.

| Type of connection | Percentage |
|---|---|
| Mobile data | 77.77% |
| Wifi | 3.70% |
| Both | 5.55% |
| None | 12.96% |

Table.13 Percentage of students with respect to the type of internet connection used

77.77% of the respondents used mobile data connection for connecting to online classes or any other activity. This reflected that they did not have access to wifi connection whereas only 3.70% of respondents had wifi connection. 12.96% of respondents did not have any type of internet connection and since their devices were not compatible enough to get connected with internet connection they did not have the necessity for internet connection due to the status of their device.

The status of the device reflects the ability to bear the investment in digital device along with the maintenance cost. As mobile data is cheaper than the wifi connection therefore the low income groups choose to select mobile data plans for their need.

| Status of internet connection | Percentage |
|---|---|
| Available | 40.74% |
| Not available | 59.25% |

Table.14 Percentage of students with respect to the availability of internet connection at home

The above table indicates whether an internet connection was available at home or not? Only 40.74% of respondents were having internet connection access in their homes whereas 59.25% of respondents were there with no internet connection at home. Children who did not have access to the internet at home reported that they had asked for a hotspot connection or a device from neighbors with whom they had good relationships. As stated by respondents, while they occasionally were fortunate enough to receive assistance, doing so on a regular basis could have negatively impacted their relationships with their neighbors, even if their parents had forbidden it. Due to the possibility that their parents would have had issues about them or suspected stealing, they had to seek support from their friend's group in secret. Respondents had an access to shared devices therefore the availability was not adequate for those with no internet connection. Students without an internet connection are denied for their equal opportunity for participation based on the rawlsian principle in the "Theory of Justice". Inaccessibility is a form of injustice for less fortunate students.

| Response | Percentage |
|---|---|
| Already available | 28.57% |
| Bought during Covid | 71.42% |

Table.15 Percentage of students with respect to the availability timeline of internet connection

The above table indicates the necessity of internet connection which became vital during the lockdown period, the no. reflects that 71.42% of households bought the internet connection during the lockdown period as a necessity for entertainment, for online classes, and other reasons.

| Platform to attend the classes | Percentage |
|---|---|
| Google meet | 34.48% |
| Zoom | 31.03% |
| WhatsApp | 29.88% |
| Youtube live sessions | 3.44% |
| Any other | 1.14% |

Table.16 Percentage of students with respect to the platform used to attend online classes

Those respondents who had attended online classes were joining through google meet and zoom in the initial period but these platforms demanded too high-speed internet connection. The lack of a high-speed internet connection resulted in nonparticipation, therefore the classes got switched to whatsapp as an easy mode when the online classes became normal during this time they were sharing their homework in pdf format through whatsapp and marking their presence. The live sessions were taken over by the whatsapp use.

| Response | Percentage |
|---|---|
| Familiar | 42.59% |
| Not familiar | 42.59% |
| Slightly familiar | 15.38% |

Table.17 Percentage of students with respect to familiarity with platforms to attend and login

The above table on the status of familiarity with the different online platforms for their use reflects the digital skills of the respondents as the percentage for familiarity and non-familiarity is equal in numbers. Respondents as not familiar responded that they were not familiar with how to use and run different online platforms. Therefore, they were not taking part actively in the online classes, this is a shortcoming of the digital divide as explained by Jan A.G.M and Van Dijk, 2006 based on motivation and skills. The slight familiarity shows some amount of familiarity and digital skills.

| Response | Percentage |
|---|---|
| Yes | 64% |
| No | 36% |

Table.18 Percentage of students with respect to the use of mobile hotspot to attend online classes

The above table indicates that 64% of respondents said yes that they had to borrow the hotspot from their friends or their neighbors to connect for online classes. Whereas those with the availability of internet connection did not have to ask for help to connect with hotspot. On the other hand, respondents with a lack of digital devices were not in a position to ask for this help.

| Reasons of stressing | Percentage |
|---|---|
| Voices coming from the background | 26.78% |
| Unstable internet connection | 25.89% |
| fluctuation in electricity | 17.85% |
| Inability to learn in online classes | 16.96% |
| Any other | 12.5% |

Table.19 Percentage of students with respect to the reason for stress during online classes

Respondents' reactions to experiencing any form of stress from taking online classes vary for a variety of reasons. According to Jan A.G.M. and Van Dijk's work on "Digital divide research, achievements, and shortcomings" these explanations make sense. These kinds of factors are significant for assessing students' motivation for online classes since they help to address concerns about the digital divide regarding students' lack of enthusiasm and feelings of neutrality or boredom in online classes. The table above lists the various causes of stress. When asked if they discuss their emotions with any family members at home, some of the respondents said they don't really do that. The stress factor is important to take the repercussion of the digital divide as how online classes and participation or non participation has mutual relation with the feelings of stress.

### 4.3 Family background

| No. of digital devices | Percentage |
|---|---|
| One | 55.55% |
| Two | 18.51% |
| More than two | 1.851% |
| None | 24.07% |

Table.20 Percentage of students with respect to the number of digital devices in the household

The above data indicates that the majority of the households have only access to only one digital device or no digital device. The number of those who are there with one digital device is 55.55%, with two digital devices is 18.51%, and more than two devices is 1.81% which is a very low no. 24% of households with no digital devices at all. This data indicates the affordability of a particular device. Here poverty is a constraint to procuring more digital devices.

| No. of members in the household | Percentage |
|---|---|
| 3 members | 3.70% |
| 4 to 7 members | 87.03% |
| More than 7 members | 9.25% |

Table.21 Percentage of students with respect to the number of members in the household

The above data indicates the family size of the household of respondents, where the majority of the household are there with a family size of people 4-7 members in the same house which comprises 87% of respondents. Only 3.70% of respondents' families have 3 members. And, 9.25% are such households where more than 7 members are residing together and sharing the resources.

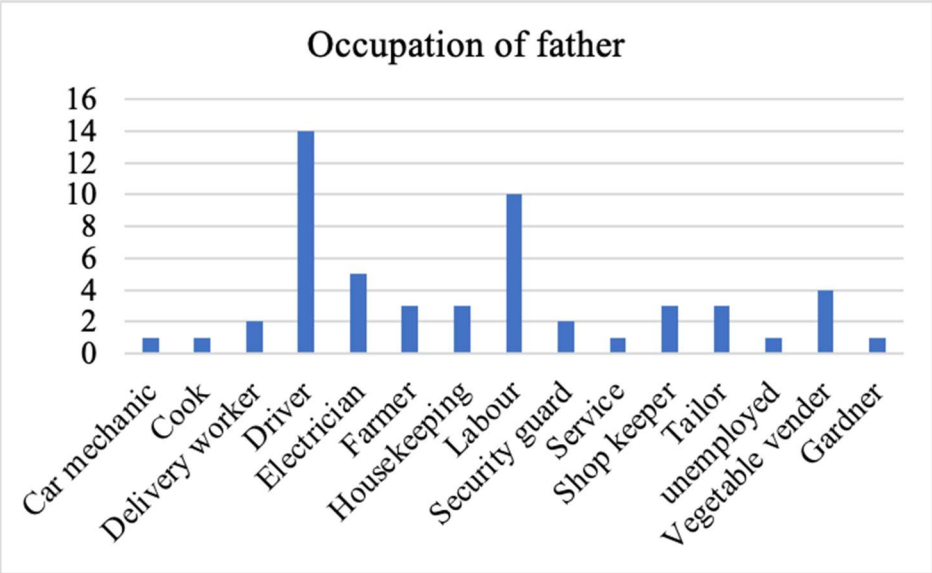



Fig.4 Number of students and occupation of their fathers

The above figure indicates the occupation of the father that comes under the informal economy. Their wages are not secured. Here caste background of scheduled caste and other backward caste is one of the major reasons to get involved in the particular type of economy since their educational level is also not as per the requirements of professional jobs. The type of work which they do demands a lot of hard work and they do not even get paid accordingly. They have to negotiate for their wages.

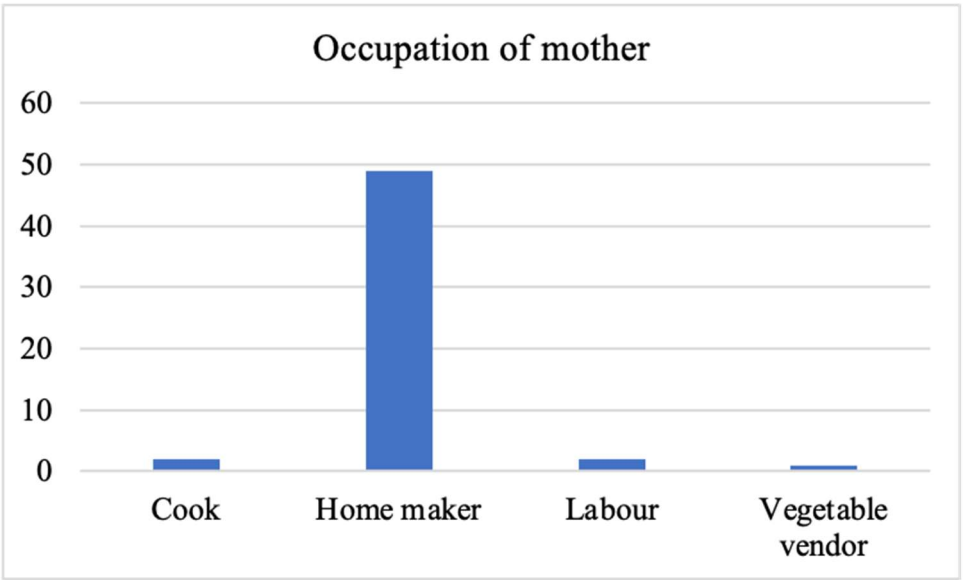



Fig.5 Number of students and occupation of their mothers

The above two figures explain the different types of occupations of parents. Mostly men as the head of the family are responsible for employment and bearing the expenses whereas women in such households are mostly homemakers. Only 9.25% of women are working, and the remaining 91% of women are homemakers. On the other hand, the male section is largely occupied with the informal type of work which does not generate a stable source of salary.

| Amount | Percentage |
|---|---|
| INR 6000 | 12.96 % |
| INR 7000 | 9.25 % |
| INR 8000 | 22.22 % |
| INR 9000 | 7.40 % |
| INR 10000 | 12.96 % |
| INR 12000 | 16.66 % |
| INR 13000 | 1.85 % |
| INR 14000 | 7.40 % |
| INR 15000 | 7.40 % |
| INR 17000 | 1.85 % |

Table.22 Percentage of students with respect to their monthly family income

The above table indicates that 64.81% of families do not even reach the position to earn more than 10 thousand in a month. Only 35.18% of households are able to earn more than 10 thousand in a month. The first scenario makes life difficult when there is only one bread earner in the family and the dependent members are in high numbers. The heavy burden for sustenance and survival put restrictions on the usage of resources.

| No. of earning members | Percentage |
|---|---|
| Only One | 81.48 % |
| Two | 18.51 % |

Table.23 Percentage of students with respect to the number of earning members in the household

In most of the houses, there is only one earning member. 81.48% of households have only one earning member whereas 18.515% have two earning members. Even if one member is earning the income, it is not adequate enough to bear the expenses in the large size of the family where dependent members are there in higher numbers than the earning number.

| No. of dependent members in the household | Percentage |
|---|---|
| 2 members | 1.851 % |
| 3 members | 12.96 % |
| 4 members | 35.18 % |
| 5 members | 27.77 % |
| 6 members | 18.51 % |
| 7 members | 1.85 % |
| 8 members | 1.85 % |

Table.24 Percentage of students with respect to the number of dependent members in the household

According to the above table, only 50% of households have a family size of two to four members whereas the other 50% of households have big size families of five to eight members.

| Level of education | Percentage |
|---|---|
| Illiterate | 5.55 % |
| Primary (1--5 standard) | 38.88 % |
| Middle school (5- 8 standard) | 18.51 % |
| Secondary or Senior Secondary (8- 10) | 22.22 % |
| Higher secondary (11-12) | 14.81 % |

Table.25 Percentage of students with respect to the education level of their fathers

The above data indicates that the majority of the fathers of participants have only completed their primary school education which is 38.88% whereas 22.2% have completed their secondary or senior secondary level education, 5.55% are illiterate whereas only 14.81% have completed their higher secondary.

| Level of education | Percentage |
|---|---|
| Illiterate | 31.48 % |
| Primary (1-5 standard) | 11.11 % |
| Middle school (5- 8 standard) | 35.18 % |
| Secondary or Senior Secondary (8- 10) | 16.66 % |
| Higher secondary (11-12) | 5.55 % |

Table.26 Percentage of students with respect to the education level of their mothers

The above data indicates that 35.18% of mothers have completed their middle school education whereas 31.48% are illiterate or have no education. Only 11.11% have completed their primary education whereas 16.66% have completed secondary level of education and only 5.55% have completed their higher secondary education which is the lowest number in the data.

| Birth order | Percentage |
|---|---|
| First born | 38.88 % |
| Middle born | 40.74 % |
| Last born | 20.37 % |

Table.27 Percentage of students with respect to their birth order

From the above data, 38.88% are first born children in their family, 40.70% are middle born children and 20.37% are last-born children in the family whereas 20.37% are last born children. The birth order of the participant reflects the factor of being responsible for the household-related help and sharing the resources with other siblings or having an opportunity to get help from siblings.

| No. of siblings | Percentage |
|---|---|
| 1 to 2 | 37.03 % |
| 2 to 4 | 57.40 % |
| More than 4 | 5.55 % |

Table.28 Percentage of students with respect to the number of their siblings

The above table indicates the size of children in the family. 37% of the participants have one to two siblings whereas the highest number of the participants comprising 57.40% of respondents have reported two to four siblings' presence in the family. 5.55% of respondents have more than 4 siblings in their family.

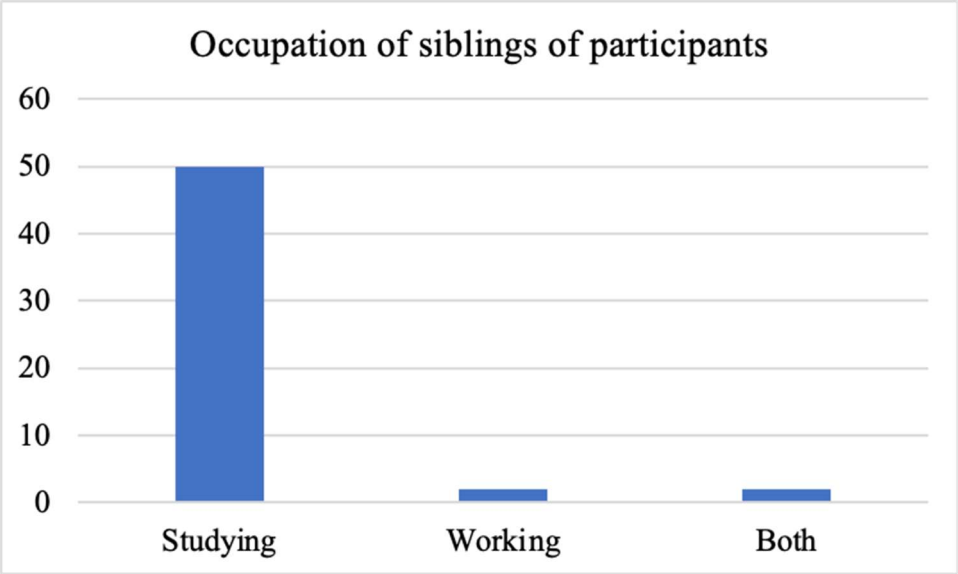



Fig.6 Number of students and the occupation of their siblings

The majority of the number for sibling's occupation includes the study profession as they are from similar age groups. 92.59% of siblings are studying whereas 3.70% are doing both studying and working. Only 3.70% are working.

| | |
|---|---|
| Shared | 85.18% |
| Not Shared | 14.81% |

Table.29 Percentage of students with respect to the sharing of digital devices with their siblings

The above data explains that participants had to share their devices with their siblings since as mentioned in the previous table siblings of the participants were also studying and their online classes were also going on at the same time, so the devices were being shared among the siblings and participants. This phenomenon affected the participation of students in online classes as children were having classes at the same time span simultaneously. 85.18% of respondents had to

share their devices among their siblings whereas only 14.815% responded that they did not share their devices. Those who had to share their devices with their siblings responded that sometimes their classes and sibling's classes used to take place at the same time so they had to manage the usage on an alternative basis where one had to attend the class and the other one had to miss.

| | |
|---|---|
| Always received support | 37.03% |
| Sometimes received support | 48.14% |
| Never received support | 14.81% |

Table.30 Percentage of students with respect to the support of parents or siblings in their studies

37% of students have received the support of their parents and siblings in their studies as extra help for concept clarification and tutoring whereas 48.14% of respondents received occasional support, 14.81% of respondents never received any type of support from anyone.

| | |
|---|---|
| Found Interesting | 7.40% |
| Found Neutral | 46.29% |
| Found Boring | 46.29% |

Table.31 Percentage of students with respect to their response to online classes

The above table reflects the interest of students in online classes where 46.29% of respondents reacted that they felt online classes boring whereas on the other side the same percentage of respondents had a neutral feeling toward the online classes, and only 7.40% of respondents found online classes interesting.

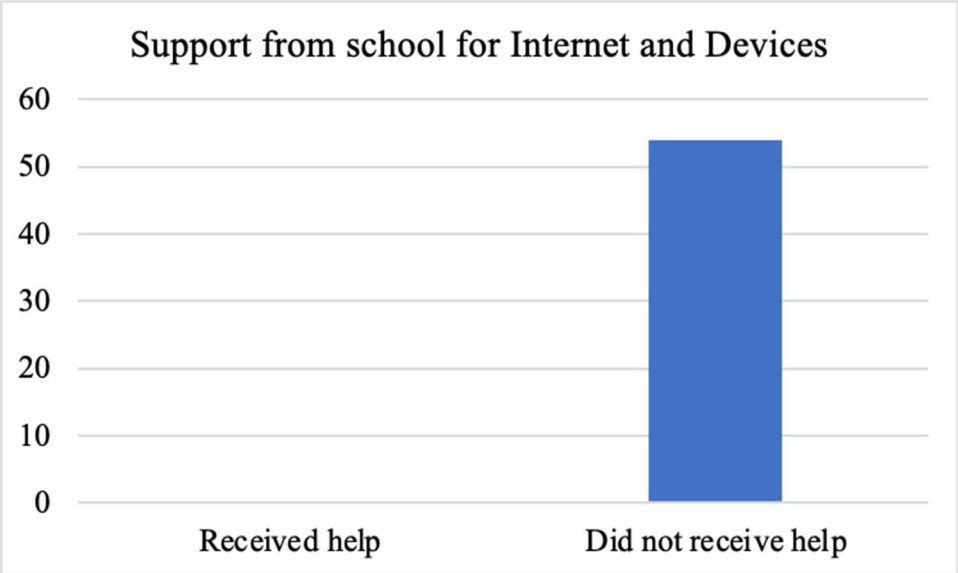



Fig.7 Number of students and the support from school for internet and devices

On the question of whether they have received any help from their schools for access to the internet or online devices, nobody responded yes. Everyone claimed that they did not receive any kind of help from their schools when the online classes were taking place as they were entirely responsible to join for online classes from their own end whether they have a device or internet connection or not.

| | |
|---|---|
| Aware | 18.51% |
| Slightly Aware | 3.70% |
| Not Aware | 77.77% |

Table.32 Percentage of students with respect to their awareness of digital platforms launched by the Indian government

| | |
|---|---|
| Sometimes | 5.55% |
| Never | 94.44% |

Table.33 Percentage of students with respect to their frequency of use of digital platforms launched by the Indian Government

On the question related to the awareness of different platforms launched by the Indian government such as Diksha, e-Pathshala available related to studies such as Diksha, National Repository of Open Educational Resources (NROER), majority of the respondents i,e, 77.77% are not aware of such platforms. Only 18.51% are aware of these platforms whereas 3.70% are slightly aware. On the other hand, the next table indicates the usage of these platforms where 94.44% of students have never used these platforms and only 5.55% of respondents have used and benefited from these platforms. Even after having some awareness the number of beneficiaries is very low in numbers.

| | |
|---|---|
| Always | 33.33% |
| Sometimes | 16.67% |
| Never | 50% |

Table.34 Percentage of students with respect to their participation in classroom discussion during online classes

Respondents have reacted differently to their participation for discussion in online classes. Around 50% of the respondents did not participate at all in discussions happening in the online classroom whereas 16.66% of students showed their interest in discussion sometimes. And, 33.22% of respondents reacted that they had always participated in online classrooms.

| | |
|---|---|
| Always | 62.96% |
| Sometimes | 33.33% |
| Never | 3.70% |

Table.35 Percentage of students with respect to their frequency of involvement in household work

On the question related to whether the participants help in any kind of household work at their home, 62.96% of respondents answered that they always help in the household work with their parents or siblings. And 33.33% of respondents reacted that they do help but do not always. It is an occasionally based demand from their parents, whereas only 3.70% have reacted that they did not have to do any household work.

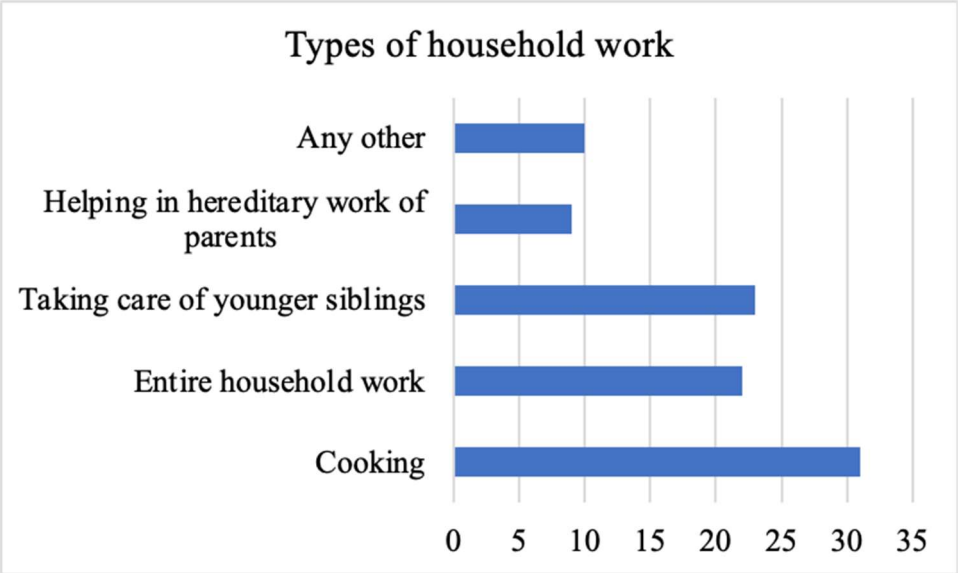



Fig.8 Number of students and their involvement in different types of household work

The above figure reflects the kind of household work that participants have to do at their homes. Those who have answered that they help in the household chores claimed that they are expected to work because of their expected role in the household, also in the situations where their parents are working they play the role of parent for their younger sibling. On being asked in an informal discussion whether they enjoy working household chores the respondents answered that sometimes they do because it makes them feel happy that they are helping their parents, especially their mothers, other times they get frustrated because they do not get their leisure time. Domestic labor increased during and aftermath of any disaster as argued by Enarson et al. which put greater responsibility on the female of the house. While measuring students' performance in their studies, it is important to include their share for the household related chores because their household responsibilities influence their performance.

| | |
|---|---|
| Always | 20.37% |
| Sometimes | 35.18% |
| Never experienced | 44.44% |

Table.36 Percentage of students with respect to their experience of facing any domestic clash or violence

The above table indicates the number of respondents who have experienced any kind of domestic clash or violence at their home. 20.37% of respondents have reacted that it is a daily experience for

them whereas 35.18% opines that violence happens sometimes but not daily. The environment of domestic clash and violence makes it hard for students to focus on their studies in such a negative environment. Respondents reacted that sometimes there is no negotiation scope when the fight among family members takes place and due to that they have to suffer and experience the partial behavior of family members involved in the clash.44.44% of respondents have reported that they had not experienced any domestic violence or clash event.

### 4.4 Responses from teachers

| Age | No. of participants |
|---|---|
| 26 years | 1 |
| 33 years | 1 |
| 34 years | 2 |
| 36 years | 1 |
| 37 years | 1 |
| 38 years | 1 |
| 39 years | 1 |
| 41 years | 1 |
| 44 years | 1 |
| 45 years | 5 |
| 49 years | 1 |
| 51 years | 1 |
| 52 years | 3 |
| 55 years | 3 |
| 56 years | 2 |
| 58 years | 1 |
| | 26 |

Table.37 Percentage of teachers with respect to their age

The age of teachers selected for the study ranged from 26 years to 58 years. The majority of the teachers were aged 45 years (19.23% of the participants). The above table lists the percentage of the group of teacher participants in this study with respect to their age.

| Taught standard | Percentage |
|---|---|
| 6th to 8th | 38.46 % |
| 6th to 9th | 3.84 % |
| 6th to 10th | 34.61 % |
| 7th to 10th | 3.84 % |
| 8th to 10th | 15.38 % |
| 9th to 10th | 3.84 % |

Table.38 Percentage of teachers with respect to the classes taught by them

The above data shows the standards taught by the participants of the study. The majority of the teachers taught classes $6^{th}$ to $8^{th}$ and $6^{th}$ to $10^{th}$ with a combined percentage of 73.07%. The above table shows the percentage of participants teaching different class groups. The study pattern of $6^{th}$ to $10^{Th}$ standard in government schools goes in accordance with the periods system for different subjects.

| Strength of students | Percentage |
|---|---|
| 1-40 students | 50% |
| 1-50 students | 38.46% |
| 1-60 students | 7.69% |
| 40-70 students | 3.846% |

Table.39 Percentage of teachers with respect to the number of students in their class

The above data indicates the strength of the classes taught by participants, with the majority of participants (50%) teaching 1-40 students at a time. The above table shows the percentage of teachers and the strength of their class. Whereas 38.46% of participants are teaching 1-50 students at one time. The higher strength of the classroom makes it difficult for the teacher to interact with every student and pay attention separately. Big size of classrooms is also responsible for students' loss of motivation in the classroom.

| Online platforms | Percentage |
|---|---|
| Google meet | 32.72% |
| WhatsApp | 30.90% |
| YouTube live sessions | 9.09% |
| Zoom | 27.27% |

Table.40 Percentage of teachers with respect to the platforms used by them to deliver classes

The above data shows the number of teachers using different platforms to deliver online classes. Google meet, WhatsApp, and Zoom is used most often by teachers. The above table shows the percentage of teachers using different platforms with the highest percentage being 32.72% on Google meet. Participants have responded that constant unstable internet connection and background voices had disrupted the flow of lectures. Teachers had responded that it was a gradual shift from the offline physical classroom to an online lecture delivery approach. Giving classes in front of the camera was something new for them to address students and meet their needs.

| Familiar | 100% |
|---|---|
| Not familiar | 0 |

Table.41 Percentage of teachers with respect to their familiarity with online platforms

The above table indicates the data on the familiarity of teachers with different online platforms used to deliver classes. 100% of the participants admitted that they have sufficient knowledge and skill of the platforms and they were able to join and deliver online classes.

| Regular | 50% |
|---|---|
| Not at all | 50% |

Table.42 Percentage of teachers with respect to their frequency of connecting with students

The above table indicates the data on the percentage of teachers according to the frequency to contact with students at which teachers contacted their students regarding their studies. Half of the participants accepted that they were in regular touch with the students and half of the participants

informed that they were not in contact with their students. Teachers responded that connecting with students on a digital device was one of the tasks for their education delivery service, students used to remain absent for long periods even in offline classes and it was very difficult to keep accountability for the involvement of those students who were not able to join and take participation in online classes. Communicating with students was completely determined by the accessibility of digital devices to students and their families. There was a communication gap with those students who were there without the device or internet connection.

| | |
|---|---|
| Completely satisfied | 34.61% |
| Slightly Satisfied | 65.38% |

Table.43 Percentage of teachers with respect to their satisfaction with the student's performance during online classes

The above table indicates the data on the satisfaction of teachers with students' performance during online classes. The majority of the teachers suggested that they were slightly satisfied with the performance of the students. 65.38% were slightly satisfied, whereas 35.61% of teachers were completely satisfied with the performance of their students. Teachers reported that Sometimes students themselves did not appear really interested for participating in online classes and some of the students kept asking about the reopening of schools as reported by some of the participant teachers.

| | |
|---|---|
| Sometimes | 38.46% |
| Always | 61.53% |

Table.44 Percentage of teachers with respect to their frequency of stopping of classes due to internet problems

The above data indicates the percentage of teachers facing internet problems sometimes and always. Frequency of occasions on which teachers had to halt the online classes due to disturbance in internet connectivity. The majority (61.53%) of teachers indicated that they always face internet connection problems and have to stop the lecture midway. Teachers had reported that disconnection was not the problem from the side of students only; they themselves had to go through to situations where due to the bad internet connection or audio visual issues they had to stop the classes.

| Response | Percentage |
|---|---|
| Yes | 84.61% |
| No | 15.38% |

Table.45 Percentage of teachers with respect to their frequency of use of personal data for online classes

The above data describes the percentage of participants who used their personal internet connection to deliver online lectures. 84.61% of the participants informed that they used their personal data for online classes.

| Response | Percentage |
|---|---|
| Satisfied | 53.84% |
| Not Satisfied | 46.15% |

Table.46 Percentage of teachers with respect to their satisfaction with the online system

The above data shows the number of participants and their satisfaction with the online teaching and learning system. 46.15% of the participants admitted that they are not satisfied with the online teaching system. Teachers themselves had reported that they are aware of the increased burden for girls for their household chores involvements where their parents look for perfection in their household responsibilities.

| Response | Percentage |
|---|---|
| Adequate | 30.43% |
| Not Adequate | 69.56% |

Table.47 Percentage of teachers with respect to their perception of school infrastructure

The above data demonstrates the percentage of participants and their thoughts on the condition of school infrastructure for delivering online classes. 69.56% of the participants admitted that the school infrastructure is not adequate to deliver online classes, and only 30.43% of respondent teachers had reported that their school infrastructure is adequate. Teachers had reported that they had to go through to frequent internet disconnection.

| Level of interest | Percentage |
|---|---|
| Fair | 50% |
| Satisfactory | 34.61% |
| Poor | 15.38% |

Table.48 Percentage of teachers with respect to the interest level of students during online classes

The above table shows the percentage of teachers and their thoughts on the interest level of students during online classes. 50% of the teachers thought that the students were fairly interested in online classes while 15.38% of the teachers thought that the students were poorly interested in online classes. On being asked whether students take participation in classroom discussion, some of the teachers responded that they have to repeatedly urge students to come forward for the ongoing classroom discussion as many students feel hesitant to speak. Such scenarios were similar in both online and offline classrooms but teachers had an opportunity to read the behavior and ways of performing in the physical classroom setup, in online classes they were not really there to keep the behavioral and cognitive changes in the students.

| Level of interest | Percentage |
|---|---|
| Excellent | 11.54% |
| Fair | 42.31% |
| Satisfactory | 34.62% |
| Very good | 11.54% |

Table.49 Percentage of teachers with respect to the interest level of students during traditional classes

The above data shows the percentage of teachers and their thoughts on the interest level of students during traditional classes.42.31% of the teachers thought that the students were fairly interested in traditional classes while 11.54% of the teachers thought that the students were very interested in traditional classes.

| | |
|---|---|
| Increased | 19.23% |
| Decreased | 73.08% |
| Do not want to answer | 7.69% |

Table.50 Percentage of teachers with respect to their thoughts on change in grades since the implementation of online classes

The above data shows the percentage of teachers and their views of students on the change in average grade points since the implementation of online classes. 73.08% of the teachers admitted that the average grade point of students has decreased since the implementation of online classes and their academic performance has suffered. Teachers had admitted several of the reasons behind it as internet connection issue; subjects like math and science were difficult to teach in online classes. Teachers claimed that students had household workload also during the online classes as students did not get their separate time for studies and sports or other activities. However, due to the school closure student's cognitive abilities suffered under the household lockdown. Several of the teachers responded on the significance of the physical classroom. Some of the teachers have claimed that offline physical classroom plays its importance as a training ground for student's development but online platforms lacked this aspect and restricted the free flow of communication between a teacher and student. On the other hand, teachers reacted that they were not really able to keep accountability on the learning evaluation of students. There was the high scope of copying answers in tests and taking help of other family or friends for doing student's homework, seeing no. of students on one single screen was also an issue. A teacher claimed that keeping an eye on students' activities during online classes had a drawback as a teacher had to swipe their screen while delivering the lecture also students did not use to keep their cameras on during the class under several reasons of high data consumption or background of the video.

### 4.5 Conclusion:

Students reported household clashes; in such situations, communication gaps between family members persist. Students with family problems do not deeply share a loving bond; in such households, basic food requirements also suffer. Students and members do not have much privacy in the small house. The decision of a parent to send their daughter to a coed school or an all-girls school is influenced by societal norms and understanding influenced by gender stereotypes. Students' participation in online classes is determined by their ownership of digital devices. Those

who did not have digital devices or had to miss their online classes for any reason, whether related to device, internet connection, or motivation, had an impact on the learning process.

According to Huisman and Smits (2015) children with more resources and supportive cultural capital of family benefit more from education. In such circumstances, high paying jobs of family members and their social capital help children to receive crucial help for their education and career building process. As argued by the conflict theory of the sociology of education where school and cultural capital have immense scope to deliver the fruitful outcome for the future development of the child and career opportunities, the above explanation reflects the role play of social and cultural capital in the education system and ripping the benefits.

Students missed their overall development that comes from school education and personal classroom experience in the first instance. Those who were unable to participate due to device inaccessibility or frequent disconnection did not receive even those benefits that could have been obtained through at least online classes. Based on the theory of sociology of education as explained by Durkheim on the importance of the social system for the socialization of society and the importance of education for the existence of the social system, educational institutions are training grounds for the fuller development of children under the functionalist view for the theory of sociology of education. Response from students as to whether they had to share their devices with their siblings or not where 85% of students responded that they shared their devices with their siblings reflected that it is not possible to have independent access over the device. 34.78% of students those who claimed that their devices were not available in good condition and where 16.6% had to repair their devices imposes an extra burden of maintaining the devices for houses with low income and unemployed family members. As the study indicates that 64.81% of the household do not even reach the position to have more than ten thousand rupees income whereas 50% of the families have big size families of five to eight family members in the house. 81.48% of the household had only one earning member responsible for the entire survival of the family. Also, there are no secured jobs for the people belonging to lower income strata and caste backgrounds. The burden and pressure get increased for the single bread earner of the family when one does not find capable enough to bear the family expenses. Where 94% of students remain dependent on mobile phones to attend online classes and 77.77% of students attended their classes through mobile data connection reflects the understanding of Deursen and Dijk for their claim that low income households are more likely to be restricted to own different types of diverse devices. 71.42% of participants who responded that they had to buy internet connection during covid reflect the essentiality of the internet. 77.77% of participated students were not aware of the different digital platforms for their educational support which reflects that students are yet not being used to take

advantage of outside sources apart from classroom studies and even if they are aware, they never used such platforms.

It is critical to educate students about the additional resources that are available to assist them in their learning process. Students who responded that they had to perform household chores claimed that it was nothing new for them because they are expected to help their parents. The majority of the household work is related to taking care of younger siblings, cooking, or sometimes doing entire household work, which put extra pressure on children and decreased their motivation for studies. The mindset of parents also plays an important for children's study performance. One of the teachers claimed that parents look for perfection in their daughter who can excel in household related chores because it can help to find them a good family and groom for their marriage. These views are placed under the gender performativity related tasks argued by Butler. Since households with lower socio-economic background do not have personal housekeeper workers so children in such families help their parents for family survival and day today work related to the household setting. 20% of students who claimed that they had to experience domestic clashes on daily basis and 35.18% of students who reported that they had experienced household clashes sometimes not daily reflects the domestic violence which defines that personal space is not egalitarian for everyone. During the lockdown, a small household with less income had another issue of domestic violence which went unreported in most of the cases under the social vulnerability approach explained by Enerson at el (2020)

A big size class restricts the personal attention of a teacher on student. In government setting schools where a teacher had to deal with 1-50 students on a general basis determine the student's motivation to take participation in the classroom. 50% of the students never take participation in their online classroom, and 46.15% of teachers also reported their dissatisfaction with the online classes due to the attention factor on students. Teachers responded that connecting with students on a digital device was one of the tasks for their education delivery service. Students remain absent for long periods of time even in offline classes, therefore it was difficult to maintain accountability for the involvement of those students who were unable to join and participate in online classes. The availability of digital devices to students and their families completely determined communication with students. There was a communication breakdown with the students who did not have a device or an internet connection.

## Chapter - 5: Conclusion

The study explored the difficulties and challenges faced by girl students during the period of imposed countrywide COVID–19 lockdown. The early stages of a pandemic limited the options available to families from lower socioeconomic backgrounds. The available resources and opportunities to exploit them are determined by factors associated with a particular socio-economic background. The pandemic touched every aspect of life. The challenges affected everyone differently; some people had difficulty coping with daily life practices, while others lost their jobs. Massive hiring and firing process became the new normal. Migrant workers had to return to their native places, and no source of convenience was available to the majority of the workers working in the informal sector. People involved in the informal type of economic sector struggle to make their ends meet. On the other hand, women faced an increased burden related to household care and management work. Anxiety, despair, and loneliness were issues that both privileged and impoverished people had to deal with during the phase of a covid disaster. People were not only struggling with health difficulties but also with the obstacles of surviving. Life got confined within the four walls of the home. Issues were faced by both students and teachers in the delivery and receiving of education via the online method in a quick shift from traditional to distance learning method when school got shut down. As a result of online education delivery, the digital divide in education has grown. Issues like lack of digital devices, inability to use various digital platforms, lack of electricity, and language barrier were experienced as obstacles that limited the active involvement of students in online classes. It is not justified or rational to expect people to become technocrats in a short period.

The online world and the use of the internet became more significant in the lives of people like never before as it became essential to find an alternative to continuing the stopped pace of life. Connecting through the means of digital platforms was not new but it became a rational necessity as there was no other alternative available, life had to be started and as it goes like necessity is the mother of innovation, the online world took the dominant place over the traditional physical world. A country like India, in its quest for development and advancement, promotes its vision of reaching the goal of 6G advancement in the technological field and promising to connect every household online, the reality of masses dealing with the increased digital divide became one such challenge for India to achieve its goal. The digital divide does not appear in an abstract world, but it has a significant relationship with people's social and economic status.

The divide between the two worlds got exposed on the basis of exploiting the opportunities and using the technology. People had no option to choose whether the need to sustain basic food is essential for survival or the internet connection and digital devices to access the digital world. There was no concept of choosing the best available option as there was no choice but to accept that the life has changed in the blink of an eye and thus they have to deal with the change. To determine whether one had access to any device or not gets determined by the different factors and one most highlighted one is their affordability. The affordability to own digital device gets determined by the income of one's family. The study aims to understand the relationship between online education and its beneficiaries, the left out and those who got the chance for their inclusion, the importance of digital devices, and the lack of the same are highlighted questions to answer the impacts related to inaccessibility.

During the time of covid, technology-based education delivery or blended mode of education through different virtual modes became dominant, but realities of the fruitful outcome remain stratified and new forms of exclusion came in front. 33.33% of respondents reported that they do not have access to any digital device, and 24% of respondents were not able to attend online classes. Even in cases of having access to devices, the device's condition was not adequate to be used. Frequent disturbances of malware abruptly stop the running status of the device.

Those who were participating in classes also had to face connectivity issues due to unstable internet connections and frequent disruption in electricity availability. Although the mobile phone seems a compatible device, carrying it imposes a timely maintenance requirement for the better use. However, the majority of the respondents attended the online classes through their mobile phones, but in some of the cases, the device was not at all compatible to run different online apps and platforms. Internet became a vital component of survival in the pandemic phase. Whether it was used for entertainment or information, people had to spend their money to access the internet as this study found that 71.42% of households in the targeted population bought the internet connection during the pandemic. 42.59% of respondents were not familiar with using the different modes of digital platforms used to conduct the online classes and deliver lectures.

It is essential to have adequate space for study, and this became extremely vital during the online class session as virtual platforms exposed the private space of one's household. The viewers and listeners on the other side of the space could easily assume the life practices and make judgments. Background voices on the online platforms created a disturbance and restricted the environment to attend and conduct the classes peacefully. The pandemic has explained that the digital space was not egalitarian for everyone. 62.96% of respondents reported that they help their parents in

household-related activities such as cooking, taking care of young siblings, hereditary work of parents, and entire household work. (Enarson et al., 2017.), (Butler, 2009.)

The cases of domestic violence and clash increased. Since children remained at home throughout the time, they had to deal with the negative environment created at home due to the domestic disturbance. It became a usual activity in some households that respondents reported that now it is quite normal for them, and they do not have any option to escape from this reality. (Petermen at el ., 2021.) Mental well-being got affected in such circumstances of household disturbance; on the other hand, the stress created by the online education delivery.

Though students appeared for online classes but they were not able to understand what was being taught in the classroom as 50% of the respondents did not take any participation in the discussion happening in the online classroom. Because of the language barrier or hesitation to speak among classmates and teachers, students were not able to understand the concepts clearly and thus they remained silent and did not raise any queries. (Abrams et al, 2004.) For example, one of the respondents reacted that the reason for not taking active participation in the online classroom was that their teachers expected them to send their worksheets through WhatsApp. Online platforms did not have the opportunity to discuss clarification of the concepts in a similar way to a physical classroom. The other one reported that it was not possible to raise a question because to do this, one has to unmute oneself first. Their environment was not supportive enough sometimes. There was always a fear inside their mind that it would cause disturbance in the classroom.

The present study explores that a good study environment and structure of households determine the benefits of online learning. The education of parents and siblings is further responsible for students' cognitive and digital skills as affluent households, and high cultural capital with high economic status was lacking in the respondent’s lifestyle and online classes. (Huisman and Smits, 2015.). This study also explores the relationship between awareness and the motivation to exploit the available resources.15% of respondents had not received any help from their parents or siblings for their studies and tutoring as extra help. 77.77% of respondents reported that they are not aware of the online platforms launched by Indian government such as Diksha, E-pathshala. 94.44% of respondents had never used such platforms at anytime in their lifetime. 46. 29% of respondents felt online classes were boring.

Challenges and difficulties faced by the students have another side to their low performance in online classes as 46.15% of teachers among respondents reported that they were not satisfied with the student's performance, and 73% of teachers reacted that they have experienced decreased grade points of students since the implementation of online education. Although teachers were familiar

with using digital devices and different online platforms, the same was not the case with students; this resulted in the disconnection of teachers and students due to the frequent disturbance in online connectivity.

Teachers responded that they lost touch with students several times. Teachers have reported that the traditional type of classroom had better scope for improving students' academic scores, and an online classroom cannot replace the value of a traditional physical classroom. 61.53% of teachers have reported that their school infrastructure is not adequate enough to conduct online classes successfully as teachers conducted the online classes by being at home and also from schools, and 84.61% of respondents had used their own personal mobile data to deliver online classes.

The data-driven digital economy is growing fast, despite significant disparities in digital readiness. It is equally essential to be able to consume and receive along with produce and distribute. The access disparity for the digital devices and knowledge economy has enormous repercussions. Digital and broadcast remote delivery strategies must cater to the needs of all families. The rapid technological change will have significance in a further divided community of people determined by the speed of technology adoption. Those who are already advanced to exploit opportunities will be there at the leveraged position, whereas those who missed the pace will further experience reaching the equal ladder.

The education of girls is so vital for a society's development and dealing with the issues related to women. As education enhances one's capability, cognitive power, and intellect, they become more aware of dealing with and handling issues, resulting in a low rate of crimes and sensitivity towards women empowerment and development. Issues of non-participation and missing classes by girl students affect their development process and acquire adequate skills. In the context of more prolonged effects, it might affect their employment opportunities and motivation to learn and face real-time practical problems. Students are the pillars of development that further shape the economy and these children have long-run struggles to deal with the later effects and challenges exposed to them. Their opportunity for equal participation and securing their education rights have been deeply affected by their non-participation. (Anthony and Padmanabhan, 2014.)

From reviewing different literature, it is evident that online education delivery has imposed many challenges and exposed the real-time pressing issues in the education sector. This study suggests that it is only possible through the inclusive approach to address the issues of those students who have lost their pace with studies and experienced a lack of motivation derive. As it is important to take action so that everyone can be benefitted, special classes can be arranged to cope up with the speed of the curriculum and enhance the verbal and digital communication of students with the help

of computer labs available in schools. By recognizing those who have missed out a lot due to any reason as students did not have mere excuses but real valid reasons, it might be helpful for the schools to improve their position among other schools for the grooming and advancing of students' development. Since schools were closed during the lockdown but now the physical classrooms have been restored, sports-related activities can also be put on centre along with the academic development of students. Because closure of schools disrupted the opportunity of students for their physical movement and their involvement in different playing activities, a vision for the overall development of students can be aimed by schools. On the other hand, different activities can be introduced such as heritage trips and academic-related hangouts within specific time duration intervals to make students more aware and have visible experience about what they are studying through books. Science activities related fun labs can be introduced as an option to conduct experiments in small groups and lectures can be delivered through projectors.

Teaching required skills to operate digital devices can be ensured to make students more adaptable towards handling digital devices and being able to adapt the digital change. This will help to make students adaptive towards the change if the school shutdown or lockdown situation occurs in any near future times. One on one based communication chance can be launched as a mission to understand students' concerns related to mental health issues and study stress. Since primary schooling plays an important role to make students able to choose their future career paths therefore these types of activities will help to bring back students' lost interest in studies due to school shutdown.

The limitation of this study remains important that although digital divide had to be faced by boys students also but the special focus has been given to girl students. This study does not take an account of the rural areas and the deep-rooted digital divide existence in such an environment. Also, this study is focused on exploring the digital divide and its impact thus the positive outcomes of technology are a missing point in this study. This study also does not take an account of the missing chance of students to avail mid day meal scheme during the lockdown. Although the raw material of food was available to students but it was a troublesome situation for the entire family to go to schools and stand in queues during the lockdown and take precautions of social distancing.

## 6. References

### Books/Chapters

Abrams, D., & Hogg, M. A. (2004). A social psychological framework for understanding social inclusion and exclusion. In *Social psychology of inclusion and exclusion* (pp. 19-42). Psychology Press.

Ballantine, J. H., Stuber, J., & Everitt, J. G. (2021). *The sociology of education: A systematic analysis*. Routledge.

Bourdieu, P. (1997). The forms of capital in Halsey. *Education, culture, economy and society*, 46-59.

Durkheim, E. (1956). Education and Sociology. Tr. Sherwood D. Fox.

Enarson, E., Fothergill, A., & Peek, L. (2018). Gender and disaster: Foundations and new directions for research and practice. *Handbook of disaster research*, 205-223.

Garry, A., Khader, S. J., & Stone, A. (Eds.). (2017). *The Routledge companion to feminist philosophy*. London/New York: Routledge.

Jagger, G. (2008). *Judith Butler: Sexual politics, social change and the power of the performative*. Routledge.

Peterman, A., Potts, A., O'Donnell, M., Thompson, K., Shah, N., Oertelt-Prigione, S., & Van Gelder, N. (2020). *Pandemics and violence against women and children* (Vol. 528). Washington, DC: Center for Global Development.

### Articles

Agarwal, B. (2021). Reflections on the less visible and less measured: Gender and COVID-19 in India. *Gender & Society*, *35*(2), 244-255.

Anthony, J., & Padmanabhan, S. (2010). Digital divide and equity in education: A Rawlsian analysis. *Journal of Information Technology Case and Application Research*, *12*(4), 37-62.

Bowles, S., & Gintis, H. (2002). The inheritance of inequality. *Journal of economic Perspectives*, *16*(3), 3-30.

Butler, J. (2009). Performativity, Precarity and Sexual Politics. *AIBR. Revista de AntropologíaIberoamericana*, *4*(3).

De Haan, A. (2000). Social exclusion: Enriching the understanding of deprivation. *Studies in social and political thought*, *2*(2), 22-40.

Efevbera, Y., & Bhabha, J. (2020). Defining and deconstructing girl child marriage and applications to global public health. *BMC public health*, *20*(1), 1-11.

Garg, S., Joshi, R. K., &Garkoti, S. C. (2022). Effect of tree canopy on herbaceous vegetation and soil characteristics in semi-arid forests of the Aravalli hills. *Arid Land Research and Management*, *36*(2), 224-242.

Gonzales, A. (2016). The contemporary US digital divide: from initial access to technology maintenance. *Information, Communication & Society*, *19*(2), 234-248.

Gurumurthy, A. (2011). Feminist visions of the network society. *Development*, *54*(4), 464-469.

Gurumurthy, A. (2018). Where is the 'struggle'in communications for social progress?. *Global media and communication*, *14*(2), 193-200.

Huisman, J., & Smits, J. (2015). Keeping children in school: effects of household and context characteristics on school dropout in 363 districts of 30 developing countries. *Sage Open*, *5*(4), 2158244015609666.

Hunter, R. (1996). Deconstructing the subjects of feminism: The essentialism debate in feminist theory and practice. *Australian Feminist Law Journal*, *6*(1), 135-162.

Jena, P. K. (2020). Impact of pandemic COVID-19 on education in India. *International journal of current research (IJCR)*, *12*.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of mixed methods research*, *1*(2), 112-133.

Joshi, A., Malhotra, B., Amadi, C., Loomba, M., Misra, A., Sharma, S., ... &Amatya, J. (2020). Gender and the digital divide across urban slums of New Delhi, India: cross-sectional study. *Journal of medical Internet research*, *22*(6), e14714.

Kedar, M. S. (2015). Digital India new way of innovating India digitally. *International Research Journal of Multidisciplinary Studies*, *1*(4), 34-49.

Kurian, V. (2007). Monsoon reaches Delhi two days ahead of schedule. *The Hindu Business Line. Retrieved*, *9*.

Mallick, J., Singh, C. K., Al-Wadi, H., Ahmed, M., Rahman, A., Shashtri, S., & Mukherjee, S. (2015). Geospatial and geostatistical approach for groundwater potential zone delineation. *Hydrological Processes*, *29*(3), 395-418.

Mukherjee, A., &Satija, D. (2020). Regional Cooperation in Industrial Revolution 4.0 and South Asia: Opportunities, Challenges and Way Forward. *South Asia Economic Journal*, *21*(1), 76-98.

Nolan, L. B. (2015). Slum definitions in urban India: implications for the measurement of health inequalities. *Population and Development Review*, *41*(1), 59-84.

Nussbaum, M. (2005). Inscribing the face: shame, stigma, and punishment. *NOMOS: Am. Soc'y Pol. Legal Phil.*, *46*, 259.

Palat Narayanan, N. (2020). The Delhi Bias: knowledge hegemony of India's slum governance. *Singapore Journal of Tropical Geography*, *41*(1), 105-119.

Potnis, D. (2016). Inequalities creating economic barriers to owning mobile phones in India: Factors responsible for the gender digital divide. *Information Development*, *32*(5), 1332-1342.

Ramanaik, S., Collumbien, M., Prakash, R., Howard-Merrill, L., Thalinja, R., Javalkar, P., ... & Bhattacharjee, P. (2018). Education, poverty and" purity" in the context of adolescent girls' secondary school retention and dropout: A qualitative study from Karnataka, southern India. *PLoS One*, *13*(9), e0202470.

Rasmussen, B., Maharaj, N., Karan, A., Symons, J., Selvaraj, S., Kumar, R., ... & Sheehan, P. (2021). Evaluating interventions to reduce child marriage in India. *Journal of Global Health Reports*, *5*.

Saxena, R., Rath, R., Gupta, S., &Sood, N. (2021). A review on ecological degradation, its causes and sustainable development in Delhi, India. *Journal of Applied and Natural Science*, *13*(4), 1294-1304.

Sen, A. (2000). Social exclusion: Concept, application, and scrutiny.

Silver, H. (2007). The process of social exclusion: the dynamics of an evolving concept. *Chronic Poverty Research Centre Working Paper*, (95).

Singh, S., Singh, S., & Kumar, A. (2018). Women and ICT: A study on access and perceptions in north India. *Indian Journal of Human Development*, *12*(3), 401-419.

Tewathia, N., Kamath, A., &Ilavarasan, P. V. (2020). Social inequalities, fundamental inequities, and recurring of the digital divide: Insights from India. *Technology in Society*, *61*, 101251.

Van Deursen, A. J., & Van Dijk, J. A. (2019). The first-level digital divide shifts from inequalities in physical access to inequalities in material access. *New media & society*, *21*(2), 354-375.

Van Dijk, J. A. (2006). Digital divide research, achievements and shortcomings. *Poetics*, *34*(4-5), 221-235.

Van Dijk, J. A. (2017). Digital divide: Impact of access. *The international encyclopedia of media effects*, 1-11.

Williams, J. C. (1991). Dissolving the sameness/difference debate: A post-modern path beyond essentialism in feminist and critical race theory. *Duke LJ*, 296.

Xu, M., David, J. M., & Kim, S. H. (2018). The fourth industrial revolution: Opportunities and challenges. *International journal of financial research*, *9*(2), 90-95.

**Census/documents/NGOs reports/Survey**

Census of India (2011). 2011 Census Data.https://censusindia.gov.in/2011-prov-results/data_files/delhi/3_PDFC-Paper-1-tables_60_81.pdf

Des.delhigovt.nic.in. 2022. [online] Available at: <http://des.delhigovt.nic.in/wps/wcm/connect/adcd1f0047a86473ab46ffbdc775c0fb/pdf+report+69th+round+slum+final.pdf?MOD=AJPERES&lmod=-920695548&CACHEID=adcd1f0047a86473ab46ffbdc775c0fb> [Accessed 10 April 2022].

Economic Survey of Delhi (2005-2006). 2005-2006 Economic Survey of Delhi Data. http://delhiplanning.nic.in/sites/default/files/cht1.pdf

Economic Survey of India (2021-22). 2021-22 Economic Survey Data. Https://www.indiabudget.gov.in/economicsurvey/doc/echapter.pdf

National Capital Region (India). Planning Board, & National Capital Region Planning Board (India). (1996). *National capital region: growth and development*. Har-Anand Publications.

National Family Health Survey (2019-21). 2019-21 National Family Health Survey Data. Http://rchiips.org/nfhs/

**Online Sources**

(n.d.). Retrieved from https://unccdcop14india.gov.in/about-delhi

Bank, A. D. (2020, October 21). Retrieved November 2, 2020, from https://www.adb.org/news/adb-urges-southeast-asian-countries-close-digital-divide-promote-equitable-growth-amid-covid-19

Delhi: Wildlife (Fauna) - Indpaedia. (2022). Retrieved 28 January 2022, from http://indpaedia.com/ind/index.php/Delhi:_Wildlife_(Fauna)

Finding Nature in Your City: New Delhi. (2017). Retrieved 21 January 2022, from https://medium.com/wildark-journal/finding-nature-in-your-city-new-delhi-8b02dd2409f7

Gangwar, S., DA, F., Bhageshwar, P. N., & Bajaj, S. (2021, August 24). Retrieved May 25, 2022, from Dawn To Earth: https://www.downtoearth.org.in/blog/urbanisation/rapid-urbanisation-where-do-urban-poor-stand--78613

Geology Details. Retrieved 24 February 2022, from http://www.rainwaterharvesting.org/index_files/geology.htm

Malik, B. (2022). Economic Survey 2022: Delhi is India's Startup Capital, edges out Bengaluru. *Business Today*. Retrieved from https://www.businesstoday.in/union-budget-2022/infographics/story/economic-survey-2022-delhi-is-indias-start-up-capital-edges-out-bengaluru-320914-2022-01-31

## Annexure – 1

**Digital Divide, Girl's Education & Exclusionary Practices in the Times of Covid-19: A Study of Government Schools in South Delhi.**

My name is Gunjan and currently I am pursuing my Masters of Philosophy from Centre for the Study of Social Exclusion and Inclusive Policy, University of Hyderabad. As my MPhil dissertation I am conducting an empirical research on 'Digital Divide, Girl's Education & Exclusionary Practices in the Times of Covid-19: A Study of Government Schools in South Delhi' to understand real time issues faced by school girl students during Covid. I humbly request you to please provide required information. The provided information in this survey will be kept confidential and will not be used for any purpose other than submitting my M. Phil dissertation to successfully get the degree from the University of Hyderabad. Your invaluable assistance in completing this work is greatly appreciated.

Thanks and regards,
Gunjan.
MPhil research scholar
Centre for the Study of Social Exclusion and Inclusive Policy
University of Hyderabad
Telangana.

**Questionnaire for students**

1. Name (optional)
2. Age
3. Religion
    a. Hindu
    b. Muslim
    c. Christian
    d. Sikh
    e. Any other

4. Caste
    a. General
    b. OBC
    c. SC
    d. ST
    e. Any other
5. In which class do you study?
6. Do you have access to any digital device?
    a. Yes
    b. No
7. Were you able to attend online classes?
    a. Yes
    b. No
8. If the answer is yes, how often did you attend the class?
    a. Regular
    b. Sometimes
    c. Very often
    d. Other
9. If the answer is NO, can you explain why?
    a. Lack of digital device
    b. Lack of internet connection
    c. Unstable internet connection
    d. No availability of electricity
    e. Any other reason

10. Which device did you use to attend online classes?

a. Mobile

b. Tablet

c. Laptop

d. Computer

e. Any other

11. Was the digital device available in good condition?

    a. Yes

    b. No

    c. Maybe

12. If the answer is No, did you have to repair the device to attend the online class?

    a. Yes

    b. No

    c. Maybe

13. Did you have internet access at your home?

    a. Yes

    b. No

14. If yes, was it available already before Covid or bought during Covid?

    a. Already available

    b. Bought during Covid

15. On which platform did you attend your class?

    a. Zoom

    b. Google meet

    c. WhatsApp

    d. YouTube live sessions

    e. Any other

16. Were you familiar with using different platforms to attend and login for your online classes?

    a. Yes

b. No

c. Slightly

17. Did you borrow a hotspot to connect your device to attend online class?

a. Yes

b. No

18. Did you feel stressed while attending online class due to any of the reason mentioned below

a. Unstable internet connection

b. Voices coming from background

c. Not being able to understand what is being taught in online class

d. Fluctuation in electricity

e. Any other

19. How many digital devices are there in your home?

a. Only one

b. Two

c. More than two

d. None

**Family background**

20. How many members are there in your family?

a. 3

b. 4-7

c. Above than 7

21. Occupation of father

22. Occupation of mother

23. Monthly family income

24. How many earning members are there in your family?

    a. Only one

    b. Two

    c. More than two

25. How many dependent members are there in your family?

26. Education of father

    a. Primary (1--5 standard)

    b. Middle school (5- 8 standard)

    c. Secondary or Senior Secondary (8- 10)

    d. Higher secondary (11-12)

    e. Undergraduate

    f. Illiterate

27. Education of Mother

    a. Primary (1--5 standard)

    b. Middle school (5- 8 standard)

    c. Secondary or Senior Secondary (8- 10)

    d. Higher secondary (11-12)

    e. Undergraduate

    f. Illiterate

28. Birth order

a. First born

b. Middle born

c. Last born

29. How many siblings are you?

a. 1-2

b. 2-4

c. More than 4

d. None

30. Are your siblings studying or working?

a. Studying

b. Working

c. Both

31. Did you have to share your device during Covid with your siblings also?

a. Yes

b. No

32. Did you get support of your parents or siblings for your studies?

a. Always

b. Sometimes

c. Never

33. How did you find online classes?

a. Boring

b. Interesting

c. Neutral

34. Did you find any help from your school for data recharge or device accessibility?

    a. Yes

    b. No

35. Are you aware of digital platform launched by Indian government such as Diksha, e-Pathshala available related to your studies such as Diksha, National Repository of Open Educational Resources(NROER)

    a. Yes

    b. No

    c. Slightly

36. If the above answer is YES, How often do you use these platforms?

    a. Always

    b. Very often

    c. Sometimes

    d. Never

37. Did you participate for classroom discussion in your online classes?

    a. Yes

    b. No

    c. Maybe

38. Do you help for any household work? and how often do you do that?

    a. Yes, always

    b. Not at all

    c. Sometimes

39. What kind of work do you help with?

a. Cooking

b. Entire household work

c. Take care of young siblings

d. Help in hereditary work of parents

e. Any other

40. Do you experience any domestic clash or violence in your home? and how often?

a. Not at all

b. Yes, sometimes

c. Yes, daily

41. Any comment or experience which you would like to share or give?

**Annexure – 2**

**Questionnaire for teachers**

1. Name
2. Age
3. Which class do you teach?
4. How much strength of students is there in your class?
    a. 1-30 students
    b. 1-40 students
    c. 40-70 students
    d. Above than 70 students
5. How many students did participate for online class?
    a. 1-20 students
    b. 20-40 students
    c. More than 40
6. Which platform did you use to take the online classes?
    a. Zoom
    b. Google meet
    c. WhatsApp
    d. YouTube live sessions
    e. Any other
7. How well versed were you to join through online platforms to conduct online classes?
    a. Yes
    b. No
    c. Slightly
8. Were you able to be in regular touch of your students?
    a. Yes
    b. No
    c. Don't want to answer
9. Were you satisfied with the performance of your students during online class sessions?

a. Completely satisfied
b. Slightly Satisfied
c. Dissatisfied
d. Don't want to answer

10. Did you experience any disturbance in internet connectivity due to which you were not able to continue taking the class session?

a. Yes
b. No
c. Slightly
d. Don't want to answer

11. Did you use your own data or Wifi connection to deliver online classes?

a. Yes
b. No
c. Maybe

12. Are you satisfied with the online teaching and learning system?

a. Yes
b. No
c. Don't want to answer

13. If the above answer is YES, Do you think that the infrastructure of your school is adequate to deliver online classes?

a. Yes
b. No
c. Maybe

14. How did you find the level of interest of students

| a. During online classes | During traditional class |
|---|---|
| a. Poor | Poor |
| b. Fair | Fair |
| c. Satisfactory | Satisfactory |
| d. Very good | Very good |
| e. Excellent | Excellent |

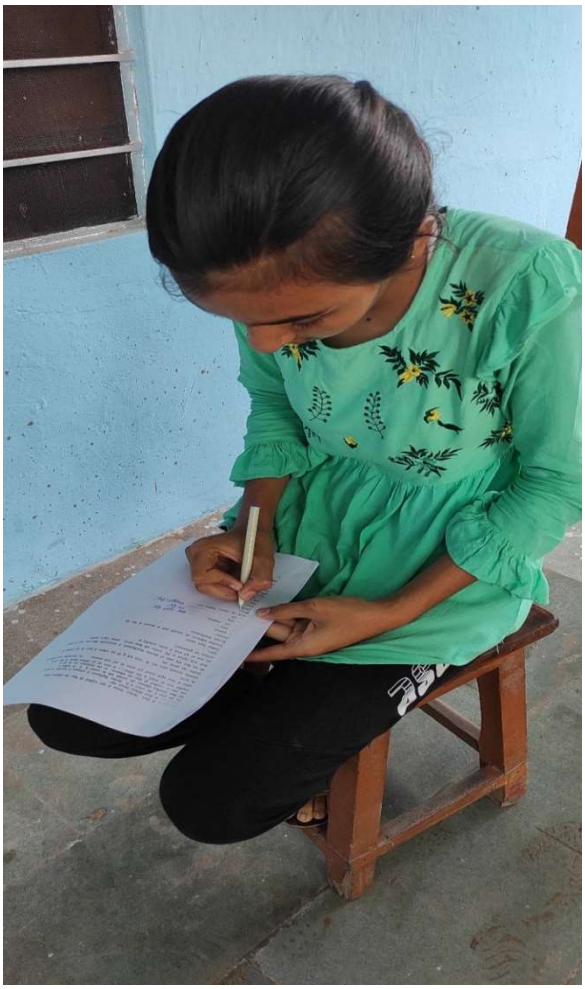
15. How did you noticed the level of increment in the average grade points of students since the implementation of online classes during covid?

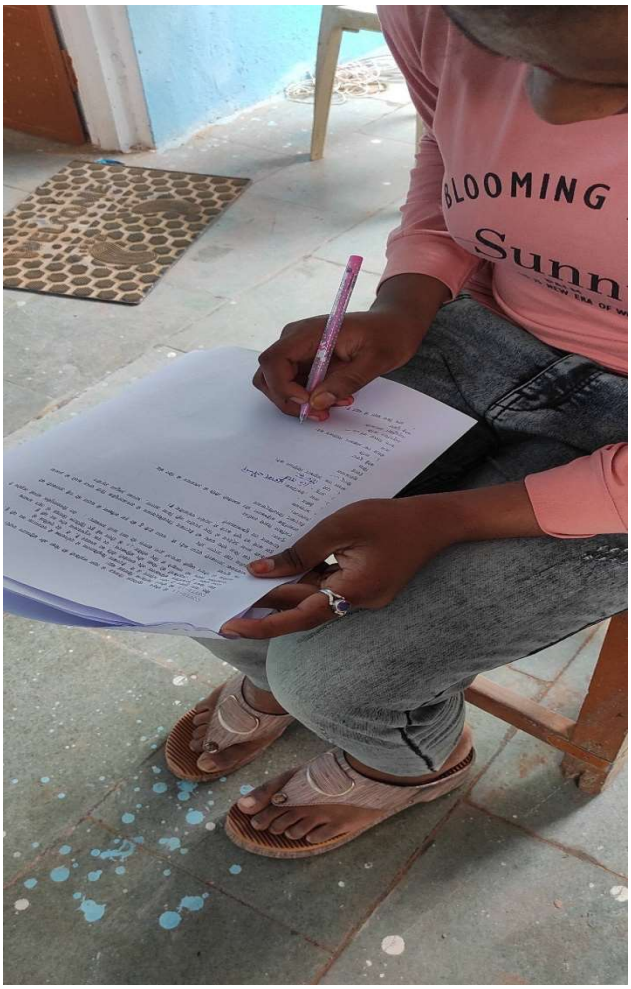
    a. Increased
    b. Decreased
    c. Do not want to answer

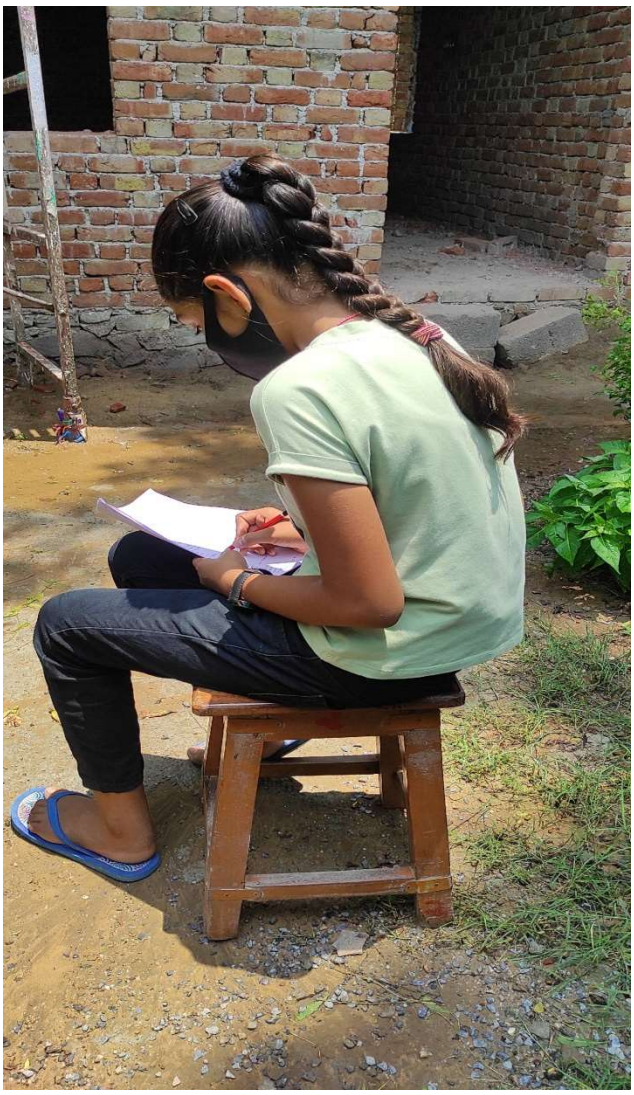
16. Any other comment or experience which you would like to give or share?

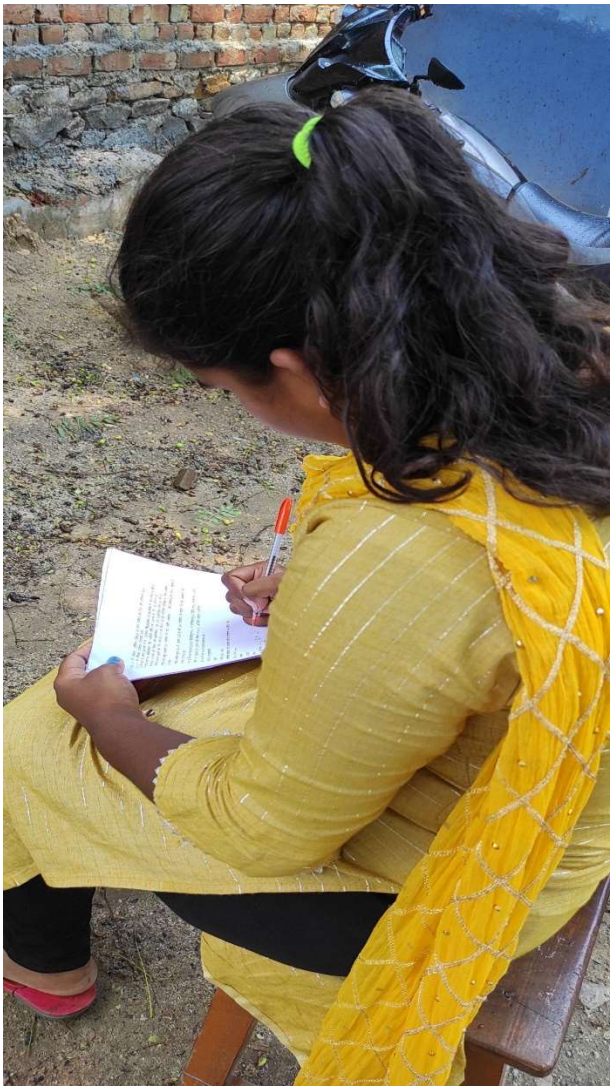
## Annexure-3

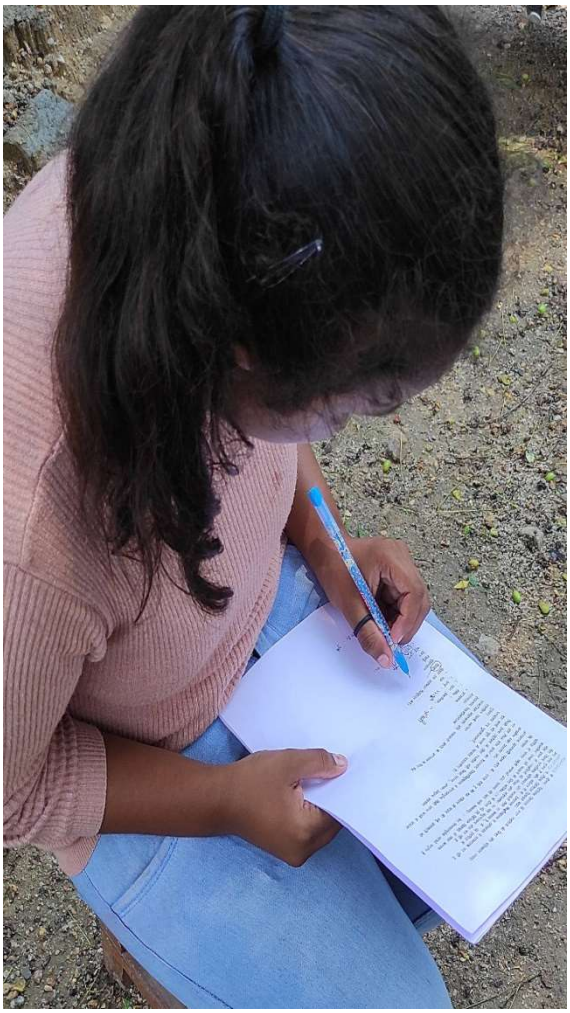
## Glimpse of the field work

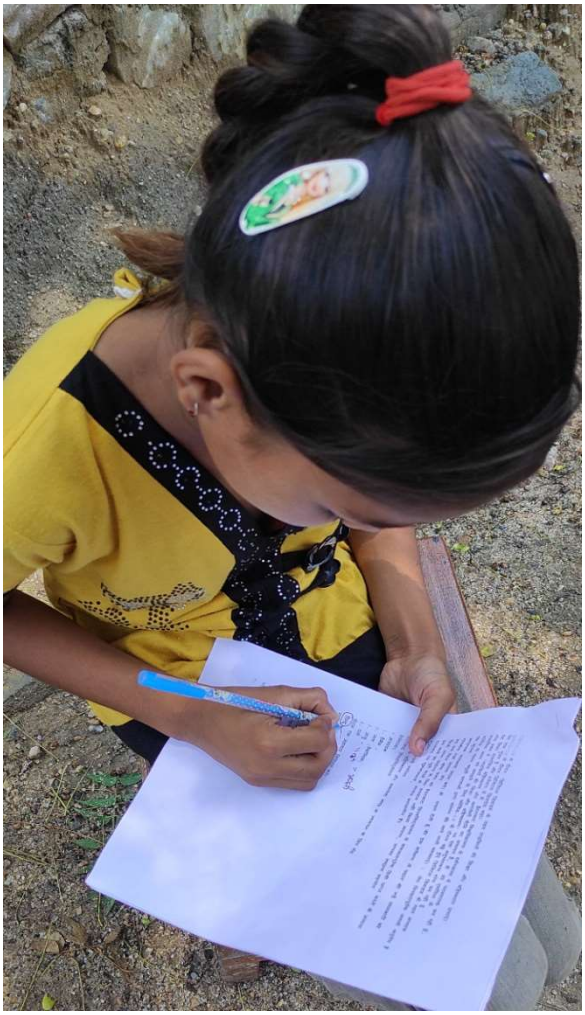











NITY
s Salon


NITY
s Salon

**Annexure-4**

**Certificates**

Estd : 1962
'A'' Accredited by NAAC (2021)
with CGPA 3.52

UGC
University Grants Commission

# SHIVAJI UNIVERSITY, KOLHAPUR

**National Conference**

**On**

**National Education Policy: 2020 and Persons with Disabilities in Higher Education**

**24th & 25th November, 2022**

**Organized by**

**Department of Sociology, UGC-Scheme for Persons with Disabilities,**
**Centre for Study of Social Exclusion and Inclusive Policies and**
**Internal Quality Assurance Cell**

## Certificate

This is to certify that, Prof./Dr./Mr./Smt. Gunjan

University/College Name University of Hyderabad.

has actively Participated/ Presented/ Resource Person/ Chair Person/ Session Coordinator in the Two-day National Conference on **"National Education Policy : 2020 and Persons with Disabilities in Higher Education"** jointly organized by Department of Sociology, UGC-Scheme for Persons with Disabilities, Centre for Study of Social Exclusion and Inclusive Policy and Internal Quality Assurance Cell, Shivaji University, Kolhapur on **24th and 25th November, 2022.** He/she has presented research paper entitled "Online education during covid - digital learning disability and exclusionary practices."

**Prof. M. S. Deshmukh**
Dean, Faculty of Humanities
Director,
Internal Quality Assurance Cell

**Prof. Jagan Karade**
HOD, Department of Sociology &
Director, Centre for Study of
Social Exclusion and
Inclusive Policy

**Dr. Pratibha B. Desai**
Conference Convenor
Coordinator,
UGC Scheme for Persons with
Disabilities

# INTERNATIONAL CONFERENCE

on

# Children & Media

(5-6 December, 2022)

## *Certificate*

This is to Certify that Mr./Ms./Prof./Dr. GUNJAN RAJORA

from UNIVERSITY OF HYDERABAD

chaired a session/ participated /presented a paper on ONLINE EDUCATION DURING COVID-DIGITAL LEARNING DISABILITY AND EXCLUSIONARY PRACTICES

in the conference organised by the Department of Sociology and Social Anthropology along with Centre for the Empowerment of Persons With Disabilities & Educational Multimedia Research Centre, Punjabi University, Patiala (Punjab) in association with CRY, AICMA & SAWM.

Mr. Daljit Ami
Director, EMRC

Dr. Kiran
Co-ordinator, CEPWD

Dr. Deepak Kumar
Conference Co-ordinator & Head
Department of Sociology & Social Anthropology

**University of Hyderabad**

**Centre for the Study of Social Exclusion and Inclusive Policy (CSSEIP)**

**In collaboration with**

**Indian Council of Social Science Research (ICSSR), Southern Regional Centre**

ICSSR-SRC

## Online Seven-Day International Research Methodology Course
## WORKSHOP

**March 8 – 14, 2021.**

# Certificate of Rapporteur

*This is to certify that,* ***Ms. Gunjan Rajora,*** *M.Phil. Scholar, CSSEIP, University of Hyderabad, has performed as rapporteur for the* ***Online Seven-Day International Research Methodology Course Workshop*** *for M.Phil./Ph.D./PDF Research Scholars in Social Sciences .*

**Prof. Ajailiu Niumai**
Coordinator & Head, CSSEIP
School of Social Sciences
University of Hyderabad

**Prof. V. Usha Kiran**
Honorary Director,
Southern Regional Centre -
Indian Council of Social Science Research(ICSSR)

TWO DAY INTERNATIONAL WEBINAR ON
ADDRESSING GENDER INEQUALITY AND SOCIAL INCLUSION

Organised by

The Centre for Study of Social Exclusion and Inclusive Policy(CSSEIP), Manipur University & Centre for the Study of Social Exclusion and Inclusive Policy(CSSEIP), University of Hyderabad

Certificate of Participation

This is to certify that GUNJAN RAJORA attended the **TWO DAY INTERNATIONAL WEBINAR ON ADDRESSING GENDER INEQUALITY AND SOCIAL INCLUSION** held on 22nd and 23rd December 2021, organised by *The Centre for Study of Social Exclusion and Inclusive Policy(CSSEIP), Manipur University & Centre for the Study of Social Exclusion and Inclusive Policy(CSSEIP), University of Hyderabad.*

**Prof. E. Bijoykumar Singh**
Director, CSSEIP,
Manipur University, Canchipur.

**Dr. Thiyam Bharat Singh**
Convenor, Associate Professor,
Centre for Study of Social Exclusion
and Inclusive Policy(CSSEIP), MU

**Prof. Ajailiu Niumai**
Director, CSSEIP &
Professor of Sociology
University of Hyderabad

**Annexure-5**

**Plagiarism report**

# Digital Divide, Girl's Education & Exclusionary Practices in the Times of Covid-19: A Study of Government Schools in South Delhi.

*by* Gunjan Rajora

---

**Submission date:** 12-Aug-2022 10:37AM (UTC+0530)
**Submission ID:** 1881634133
**File name:** Gunjan_Rajora.doc (1.91M)
**Word count:** 27909
**Character count:** 150994

Digital Divide, Girl's Education & Exclusionary Practices in the Times of Covid-19: A Study of Government Schools in South Delhi.

ORIGINALITY REPORT

| 7% | 5% | 4% | 4% |
|---|---|---|---|
| SIMILARITY INDEX | INTERNET SOURCES | PUBLICATIONS | STUDENT PAPERS |

PRIMARY SOURCES

| | | |
|---|---|---|
| 1 | journals.ansfoundation.org<br>Internet Source | 1% |
| 2 | usa1lib.org<br>Internet Source | <1% |
| 3 | ru.booksc.me<br>Internet Source | <1% |
| 4 | www.deepdyve.com<br>Internet Source | <1% |
| 5 | en.wikipedia.org<br>Internet Source | <1% |
| 6 | www.researchgate.net<br>Internet Source | <1% |
| 7 | Jan A. G. M. Van Dijk. "Digital Divide: Impact of Access", Wiley, 2017<br>Publication | <1% |
| 8 | Submitted to The Open University of Hong Kong<br>Student Paper | <1% |

| | | |
|---|---|---|
| 9 | Anita Gurumurthy. "Feminist Visions of the Network Society", Development, 2011<br>Publication | <1 % |
| 10 | Submitted to Ambedkar University Delhi<br>Student Paper | <1 % |
| 11 | Anita Gurumurthy. "Where is the 'struggle' in communications for social progress?", Global Media and Communication, 2018<br>Publication | <1 % |
| 12 | web.delhi.gov.in<br>Internet Source | <1 % |
| 13 | Josephine Anthony, Sudarsan Padmanabhan. "Digital Divide And Equity In Education: A Rawlsian Analysis", Journal of Information Technology Case and Application Research, 2014<br>Publication | <1 % |
| 14 | Rosemary Hunter. " D T S O F : T E D I F T A P ", Australian Feminist Law Journal, 2015<br>Publication | <1 % |
| 15 | "Marginalization in Globalizing Delhi: Issues of Land, Livelihoods and Health", Springer Science and Business Media LLC, 2017<br>Publication | <1 % |
| 16 | journals.sagepub.com<br>Internet Source | <1 % |

| | | |
|---|---|---|
| 17 | delhi.gov.in<br>Internet Source | <1 % |
| 18 | core.ac.uk<br>Internet Source | <1 % |
| 19 | Submitted to RICS School of Built Environment, Amity University<br>Student Paper | <1 % |
| 20 | Submitted to University of Northampton<br>Student Paper | <1 % |
| 21 | Submitted to Blackburn College, Lancashire<br>Student Paper | <1 % |
| 22 | Submitted to University of Westminster<br>Student Paper | <1 % |
| 23 | Nidhi Tewathia, Anant Kamath, P. Vigneswara Ilavarasan. "Social inequalities, fundamental inequities, and recurring of the digital divide: Insights from India", Technology in Society, 2020<br>Publication | <1 % |
| 24 | revenue.delhi.gov.in<br>Internet Source | <1 % |
| 25 | Submitted to Oxford Brookes University<br>Student Paper | <1 % |
| 26 | www.co2nnect.org<br>Internet Source | <1 % |

| | | |
|---|---|---|
| 27 | Submitted to Institute of Management Technology<br>Student Paper | <1 % |
| 28 | Submitted to Purchase College, SUNY<br>Student Paper | <1 % |
| 29 | Smita Mishra Panda, Supriya Pattanayak, Annapurna Devi Pandey. "Chapter 1 Introduction: The Reality of Social Exclusion and Policy of Inclusion", Springer Science and Business Media LLC, 2022<br>Publication | <1 % |
| 30 | Submitted to liberty<br>Student Paper | <1 % |
| 31 | Submitted to University of Queensland<br>Student Paper | <1 % |
| 32 | dokumen.pub<br>Internet Source | <1 % |
| 33 | moef.gov.in<br>Internet Source | <1 % |
| 34 | rbdim.pl<br>Internet Source | <1 % |
| 35 | www.thestudentroom.co.uk<br>Internet Source | <1 % |
| 36 | dk.fdv.uni-lj.si<br>Internet Source | <1 % |

| | | |
|---|---|---|
| 37 | Submitted to Lovely Professional University<br>Student Paper | <1 % |
| 38 | Submitted to Coventry University<br>Student Paper | <1 % |
| 39 | mzuir.inflibnet.ac.in:8080<br>Internet Source | <1 % |
| 40 | "AUC 2019", Springer Science and Business Media LLC, 2021<br>Publication | <1 % |
| 41 | tuckerkg.blogspot.com<br>Internet Source | <1 % |
| 42 | van Dijk, J.A.G.M.. "Digital divide research, achievements and shortcomings", Poetics, 200608/10<br>Publication | <1 % |
| 43 | cibtech.org<br>Internet Source | <1 % |
| 44 | www.yumpu.com<br>Internet Source | <1 % |
| 45 | ijsrst.com<br>Internet Source | <1 % |
| 46 | Submitted to South Bank University<br>Student Paper | <1 % |
| 47 | Submitted to University of Portsmouth<br>Student Paper | <1 % |