Social inclusion and Digital education in secondary school: A study based on South 24 parganas, West Bengal

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Abstract:

The new education policy, 2020 (NEP 2020) is based on the key pillars of access, equality, quality, affordability and accountability. Digital India is a dream program of Government of India with an aim to convert India to a digitally empowered society and knowledge economy but we all know India is a diverse, multilingual country. For proper social inclusion digital education must be for all. This research paper will seek the penetration of Digital learning in south 24 parganas in terms of social inclusion.

Key Words

1. Introduction

Digital India is a dream program of Government of India with an aim to convert India to a digitally empowered society and knowledge economy. It is supported by New Education Policy (2020) but we all know India is a diverse, multilingual country so digital education instantly cannot replicate the physical classrooms system. If digital education is the future, the policy must go further to address the feasibility of digital practices to ensure the social inclusion and participations of all children.

According to India Today web desk, 2021, the New Education policy, (NEP, 2020) is based on the key pillars of access, equality, quality, affordability and accountability. The main objectivity of

NEP is to revolutionize the traditional way of learning by introducing new aspect such as digital libraries, online assessment, virtual lab and more.

ReviseSociology, 2017[1] Sugata Mitra, the educationist in the year of 1999 did a very interesting experiment, he put a computer with internet connection, in a slum in Delhi. This experiment is popularly known as Sugata Mitra's hole in the wall experiment. The computer attracted a number of slum children who were illiterate. By the end of the first day, these children taught themselves to use the internet without knowing it Next five years Mitra continue the experiment and surprisingly few non-English-speaking students were able to answer the question related to cell biology.

Many instances suggested that students from better economic background can access e-learning or digital learning more than the under-privileged background. That is why social inclusion in digital education is necessary. This research paper will seek the penetration of Digital learning in south 24 parganas in terms of social inclusion.

1.1 The Statement of the Problem:

According to Knowledge Gap Theory, we are bombarded with information in our society but it is not evenly distributed amongst the member of society: people with higher socioeconomic status have better infrastructure to get the information. This leads to a division of two groups: a group of better-educated people who know more and those with low education who know less. Lower socio-economic status (SES) people have little or no knowledge about public affairs. They are disconnected from news events and important new discoveries and aren't aware about their lack of knowledge.

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[1] ReviseSociology (2017). Sugata Mitra's Hole in the Wall Experiment. ReviseSociology. 14-10-2017. Sugata Mitra's Hole in the Wall Experiment – ReviseSociology

The same can be happened among the people who are digitally empowered and who are not. UNICEF 2020[2] According to UNICEF-ITU report, low digital skill and equipment is a major obstacle to an effective participation in a society. The Problem of Digital inadequacy is not unique it is acute in a nation like India where more than half of the population is under 25 years old. To stop this societal disparity digital inclusion from school level is important. Digital practice from secondary school will help to prepare our future generation. This research paper is West Bengal centric. The researcher has selected South 24 Parganas of West Bengal as its research area.

1.2 Objectives

Pandemic is an eye opener for education sector. COVID 19 taught us that digital learning is parrel mode of our academics. It is no more a make shift system. In near future digitisation in education will rule the whole world. It will help the students-teachers to grow in academics and in their career. Social inclusion in digital education of all sectors from school level will make this process more relevant and meaningful.

1.2.1 To calculate the digital inclusion it is important to map the Digital practices in secondary school.

a) Overall digital infrastructure in the school

b) Capacity to create Online content

2. Literature Review

School is the incubator of making good and well-equipped citizens. The distribution of cheap devices and data is leading India to digital inclusion but digital empowerment is the aspiration that

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[2] UNICEF(2020).Two thirds of the world's school-age children have no internet access at home, new UNICEF-ITU report says. 30-11-2020

www.unicef.org/press-releases/two-thirds-worlds-school-age-children-have-no-internet-access-home-new-unicef-itu

India should be working towards. (*UNICEF, 2020*)[3] According to UNICEF-ITU report two third of schools in the world does not have proper internet Connection. Lack of connectivity not only prevents the children to get an education but they are lagging to compete with the modern economy. It is a major setback for digital inclusion also.

Technology always drives the society in a new dimension. In their book Cell Phone nation, Robin Jaffrey and Assa Doron had mentioned, how mobile phones had changed the business, politics and life of ordinary people in India. *(Rao Manmohan, 2013)*[4] mentioned that cheap mobile phones gave poor people a device that improved their chances in a hard world.

COVID-19, Pandemic has changed the whole educational Scenario from classroom to Virtual Board. In one way it has changed the whole education system and it highlighted the problem of Digital divide. In short, we can say the pandemic was an eye-opener to the under-preparedness of India for digital practices in education.

According to (*Digital Divide in India-Meaning, Implication and Initiatives, 2020*)[5] there are various kinds of the digital divide. The Gender Divide is one of the prominent digital divides, especially in developing countries.

The main barriers to the Infrastructural divide are the lack of cheap smart phone with proper Internet connections. Skill-wise divide includes inequality in the usage of digital technologies due to lack of ICTs skills or support, due to physical disability, cultural and behavioral attitudes towards technology like computers, mobile is difficult to use or belong to brainy people, etc.

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[3] UNICEF(2020).Two thirds of the world's school-age children have no internet access at home, new UNICEF-ITU report says. 30-11-2020

[4] Rao Manmohan, M. (2013, August 29). *[Book review] cellphone nation: How mobile phones have revolutionised business, politics and ordinary life in India*. YourStory.com
 https://yourstory.com/2013/08/book-review-cellphone-nation/amp Retrieved March 24, 2022

[5] Digital Divide in India-Meaning, Implication and Initiatives (2020). BYJU'S EXAM PREP.
https://byjus.com/govt-exams/digital-divide-india/

(Banerjee A, 2022) [6] Annual Status Report of Education (ASER) had revealed that 2 years of shutdown of schools had led to a huge learning gap among the primary school students in West Bengal. The study indicates due to the closure of government school has affected the reading practices of students. Even they forgot the simple addition, subtraction. Pandemic had affected the reading and numeracy skills among the students of class I, II, III and in Vth standard.

(Pratichi, 2017) [7]Study on Transition of Boys and Girls to secondary schools in West Bengal (2017)-in this study, commissioned by UNICEF India, the Pratichi Institute researchers look into the why-s and Wherefore-s involved in the ease or hardship of continuum that the boys and the girls of West Bengal encounter while moving from the primary to the upper primary level of schooling and thereafter to the secondary and higher secondary phases of education. They attempt to examine whether the policy vision and actions are adequate and effective to ensure that young boys and girls complete their school life without getting forced to drop out or being pushed out of the system prematurely.

But after pandemic scenario has been changed. (ASER, 2023)[8] Researcher received a very insightful report of ASER 2023. These reports indicated that 89% of youth have smartphone at home. As per the West Bengal centric report where cooch-bihar is the survey population 83.6% have smartphone at home. 92.1% report being able to use a smartphone, of those who can use a smart phone 35.1% have their own smart phone. This report indicated that in cooch-Bihar, West Bengal 55.1% are using the smart phone for education related work, 19.3% are using it forgetting online services and 83.8% are using it for social media and entertainment.

How is West Bengal government utilizing its digital infrastructure to run the online education system for school students? Banglar Sikhkah Portal-banglarshiksha.gov.in (It is the is the official

[6] Banerjee, A. (2022). *School closure led to sharp dip in Jr-level learning skills.*The Times of India. *Kolkata news* . 10.2.22. https://timesofindia.indiatimes.com/city/kolkata/school-closure-led-to-sharp-dip-in-jr-level-learning-skills/articleshow/89464152.cms

[7] Pratichi(2017).Study on Transition of Boys and Girls to secondary schools in West Bengal (2017). Pratichi. https://www.pratichi.org/completed-projects/ Retrieve on 13.7.2024

[8] ASER (2023). Beyond Basics. ASER: Annual Status of Education Report. https://asercentre.org/aser-2023-beyond-basics/ Retrieve on 13.7.2024

website of the School Education Department of West Bengal, offering various services and resources for schools, students, teachers and parents) 3 division are very applicable for digital practices in school level. These are Digital Content, E-learning and Online Classroom.

3. Research Design

3.1 Aera of Study:

South 24 Parganas is a district of west Bengal which is consists of Metropolitan Kolkata to the remote riverine village up to Bay of Bengal. 84% of the population lives in rural area and where the development is taken care by panchayts and rest by the Kolkata Municipality corporation. In this district of Bengal more than 37% of the population from Below poverty line. South 24 parganas is the largest district of West Bengal mainly and second largest by population.

The Researcher had divided the district into three zones. In zone I, the Suburban area or semi urban area and Zone II includes mainly the schools from the rural area and Zone III is costal belt. Suburban area means, it is adjacent to Kolkata, the capital of West Bengal where both government and private schools are available. But in the Zone III, mostly the coastal areas are included where only government schools are available.

3.2 Method of Data Collection

Researcher, prepared 2 different questionnaires for students for Government and Private schools. Questionnaires are consisting of open and close ended questions in a manner of 60:40. Questionnaires were printed and distributed in a hard copy amongst the students. In this research paper, sample size 629 students. All the data were collected from 6 Government schools and 2 Private schools which are located in rural, coastal and semi urban area of South 24 Parganas. As the Paper is on the observation about the secondary schools. Students are from Class 8, 9, 10. Primary Data were collected in between January and February, 2024 from 8 schools across South 24 Parganas.

3.3 Population and Sample Size

As per west Government's official version in south 24 pargana there are 1081 government schools, around 5 lakh government school students. As the population size is very big, in this paper sample size is the fraction of whole population.

3.4 Sampling Technique

The researcher had selected the convenience methodology under non probability sampling. *Ahuja, 2001*[9] Under the non-probability sampling researcher had selected snowball or network sampling.

3.5 Design of Research

Here the researcher has design the paper under mixed method when quantitative and qualitative data, together provide a better understanding which reflects the practicality and multiple viewpoints. In this thesis researcher distributed the questionnaire and follow up focus group. Here the researcher collected both qualitative and qualitative data. The sequence of the data is researcher collect both quantitative data at the same time collect the qualitative data. In this convergent Parallel Design, both data are related after that interpretation came.

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[9] Ahuja R,(2001), Research Methods. P 181, Rawat Publication

3.6 Statistical tools used for Data Analysis

In this paper researcher used Statistical Package for Social Sciences or SPSS. In SPSS used the cross tabulation. It is a useful analytical tool which is used for comparing the results, to one or more variables with the result of another variables.

4. Data Collection and Data Analysis

4.a) Overall digital infrastructure in the school (Both Private and Government School)

Overall digital infrastructure in the school-**Students' Reactions**

			Overall digital infrastructure in the school					Total
			Excellent	Good	Moderate	Poor	Worst	Total
Type of Ownership	GOVT	Count	4	98	11	405	8	526
		% of Total	.6%	15.1%	1.7%	62.3%	1.2%	80.9%
	Private	Count	40	84	0	0	0	124
		% of Total	6.2%	12.9%	.0%	.0%	.0%	19.1%
Total		Count	44	182	11	405	8	650
		% of Total	6.8%	28.0%	1.7%	62.3%	1.2%	100.0%

This response had been taken from the students (Both Government and Private schools). Here Type of school is independent variable whereas is Overall digital infrastructure in the school dependent variable. After the cross-tabulation analysis the table indicated that in the Government schools out of 526 students, 405 said it is poor, only 98 said it is good whereas in private schools out of 124, 40 students said it is excellent and 84 said it is good.

4.b) Capacity to create Online content (Both Government and Private School)

Capacity to create Online Content-**Students' Reaction**

			Capacity to create Online Content						
			Excellent	Good	Moderate	NA	Poor	Worst	Total
Type of Ownership	GOVT	Count	2	107	109	2	205	101	526
		% of Total	.3%	16.5%	16.8%	.3%	31.5%	15.5%	80.9%
	Private	Count	80	38	6	0	0	0	124
		% of Total	12.3%	5.8%	.9%	.0%	.0%	.0%	19.1%
Total		Count	82	145	115	2	205	101	650
		% of Total	12.6%	22.3%	17.7%	.3%	31.5%	15.5%	100.0%

This response had been taken from the students. (Both from Govt and Private). Out of 526 students from Govt school 101 students said they are very worst to create own digital content, 205 said they poor in this skill whereas out 124 private schools' students 80 said they are excellent in creating content.

5.1. Findings

5.1.A Gap between Government and private schools: After mapping the digital practices to calculate social inclusion among secondary school students, the gap between government and

private schools are visible. Government schools students are far behind in terms of digital learning and education

5.1.B Gap between the government initiatives and its practical implications: There is a visible gap between the Government initiatives and in its practical implications. Though Banglar Sikhkha portal is providing many e-study materials and online videos but students of grassroots level are unable to utilize it. All initiatives became meaningless as in grassroots level stakeholders like students are not getting its benefits. Most of the government schools' students cannot use the Banglar Sikhkha portal due to technical glitches and lack of digital infrastructure.

5.2 Limitations

Population size should be increase from 629 to at least 1000 as south 24 parganas is the second populated district of west Bengal. In compare to the total number of schools researcher has compare the study between 6 government school and 2 private school which macro in size

5.3 Conclusion

There should to a well synchronized plan from the policy makers for social inclusion through digital learning and education. In our country it has been observed many excellent policies collapsed due to the mal-functioning implementations. To upgrade our education system at per the world level positive attitude must require otherwise India will land at a digitally discriminated society without proper inclusion where young and potential mind will live in a suffocating situation.

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