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EXPLORING THE DIGITAL GAP, ONLINE LEARNING EXCLUSION AND EDUCATIONAL DISPARITY AMONG TAMANG INDIGENOUS SCHOOL STUDENTS IN DIGITAL ERA

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ABSTRACT

The present research study was aimed to explore the educational inequalities faced by Tamang tribal students due to the digital gap, which extends to create learning exclusion. This study adopted qualitative phenomenological research design and conducted in a rural Tamang community in the Darjeeling district. The purposive sampling technique was employed to select 20 secondary school-going students from two blocks, in which 10 students were selected from the Rangli Rangliot block and 10 students were selected from the Jorebunglow-Sukhiapokhri block. Data were collected through semi-structured interviews. After collection of qualitative data, the investigator adopted thematic analysis to analyze the data through MAXQDA software. This study revealed that most of the rural tribal students had faced significant challenges in digital learning; they were not aware of online learning and they did not have any digital gadgets to participate in online courses such as NCERT school courses through the SWAYAM platform. On the other hand, some Tamang tribal students who had digital gadgets described their experiences that digital devices are helpful for learning various topics easily, and they positively participate various online courses to upgrade their knowledge. Additionally, students have high performance in their academics due to digital learning. Moreover, this study showed that inadequate digital access and poor digital infrastructure had been creating learning inequalities among rural tribal students.

KEYWORDS: Digital gap, Digital exclusion, online learning, Educational disparity Tamang community

INTRODUCTION

The Tamang tribal community in India is an indigenous group that is mainly found in the north-eastern states, especially in Sikkim, West Bengal (especially the Darjeeling Hills), Assam and Arunachal Pradesh. Their social-cultural, linguistic and religious practices are closely linked to the larger Tibeto-Burman ethnic group. The history of this community's struggle is longstanding. For a prolonged period, people of Tamang community have progressed towards modernization in dealing with natural, social, and economic circumstances; during this journey, education has been their only weapon. Education has been a key factor for social mobility of the Tamang communities, with rising numbers of young learners pursuing school education in urban regions. However, in rural areas, the Tamang community in West Bengal had faced significant challenges in equitable education due to digital deprivation in school education. In India, tribal students have been suffering in accessing equal education opportunities due to inadequate infrastructure, limitations of geographical accessibility, and poor socio-economic conditions. The absence of digital accessibility and poor internet connectivity had seriously affected the community's capacity to progress in the modern era. The global education has been shifting towards online digital learning and simultaneously creating learning gap among underprivileged rural tribal students. Agarwal and Choudhary (2021) stated that during COVID-19 rural India had faced huge educational problem due to very poor internet connectivity and inadequate digital resources. However, digital learning in rural areas has gradually become permanent in the field of school education, and it will be an integral aspect of our next generation's teaching and learning activities. Arya and Kumar (2025) explored while digitization in education has been reforming in the school education system and empowering our society, many rural and tribal areas of our nation have been facing digital challenges due to lack of digital devices or gadgets, and it pushes tribal and rural communities toward digital deprivation or a digital gap. Therefore, the present research study has tried to explore the challenges and barriers of online digital learning such as socio-economic status of participants, availability of digital infrastructure, gadgets, digital skills among the rural students of Tamang community.

LITERATURE REVIEW

In the contemporary world, digital learning and digital literacy are the most crucial part of the holistic development of any nation, that is why ICTs are playing a vital role in enabling citizen to get involve actively in political, economic, education and social-cultural life. Several research studies have shown that inadequate digital infrastructure and digital resources to access digital technology affected the educational, health as well as economic outcomes of the marginalized group in India. The purpose of the present study to explores the availability of digital devices and internet accessibility within Tamang community at present and how limited access of digital devices and poor internet connectivity influence online learning and academic performance among rural students from Tamang community.

Adhikari (2020) explored how the living conditions, socio-economic conditions, home environment and geographical conditions of the Tamang students affected elementary school attainment of Dhankuta district in Nepal. Data were collected from 15 households through purposive sampling technique and

thematic analysis was used to analyse the data. This study showed tamang students were facing a significant challenge regarding various factors such as poverty, family size, poor living conditions etc.

Kormos and Wisdom (2021) studied how rural teachers used technology in their teaching activities. In this study, researchers used quantitative descriptive in nature. Primary data were collected from 276 rural teachers through questionnaire. Descriptive analysis was used to analyze the data. The study showed that 57% of rural teachers never used advance technology in their classroom teaching.

Kumar (2021) explored the how digital shift of school classroom during COVID-19 was crated digital divide among tribal student in Visakhapatnam Tribal Area. This study showed that economic, geographic and social divide had created huge gap in digital education in tribal school students.

Baral (2022) explored the challenges and berries of online teaching-learning like the availability of ICT infrastructure and technological skills and management for online classes in educational institutions. The results showed that using technology to teach and learn was the greatest option because it can offer opportunities despite difficult circumstances and also showed that various challenges faced by tribal communities in engaging in online learning regarding poor connectivity, lack of digital resources, and geographical constraints.

Lama (2022) studied the relationship between education and their livelihoods of Tamang people of Kathmandu district. The major finding of the study showed that Tamang people were suffering from poor economic condition that were affecting their livelihood and education.

Florida (2024) explored the perception of learners who did not have any digital devices to access digital education. In this study, researchers used qualitative case study research design. Primary data were collected through in-depth interview method. Thematic analysis was used to analyse the data. The study revealed that students who did not have any digital devices had faced difficulties in learning and also, they had low performance in classroom activities.

Gandhi and Umair (2025) studied how the digital gap in rural India affected the students' learning experiences. In this study, researchers used qualitative research approach, the Primary data were collected through interviews of students and teachers. The study showed that digital gap had been creating vital educational discrimination among rural areas.

Sarma and Sarma (2025) explored how the digital discrimination faced by rural school students due to their socio-economic, cultural, lack of digital gadgets in rural and urban area in Assam. In this study, researchers used phenomenological research design. Primary data were collected from 30 students through the purposive sampling technique, in Jorhat district, Assam. Thematic analysis was used to analyse the data. The study revealed that rural students in Assam had faced significant challenges to access digital learning due to their socio-economic, cultural, lack of digital gadgets.

RESEARCH QUESTIONS

- How do poor digital infrastructure and internet access create a digital gap in online education of students from Tamang community?
- How does the digital divide affect the academic performance of students from the Tamang community?
- How do sociocultural, economic, educational, and geographical factors affect online learning among the Tamang students?

RESEARCH METHODOLOGY

The present study was qualitative in nature, for considering the purpose of the study investigator adopted a descriptive phenomenological research approach. This approach deals with the lived experiences of participants in a particular group and aim to better understand one's perspective, views and opinion of a particular phenomenon. In this present study the sample consisted of a total 20 secondary students from tamang community. Sample were purposively pooled from two villages (Rangbull and Mangwa) in two different blocks, 10 students were taken from Rangbull village in Jorebunglow-Sukhiapokhri block and 10 students were taken from Mangwa village in Rangli Rangliot block, Darjeeling district. The primary qualitative data were collected through semi structured interviews of secondary students from Tamang community.

All the collected data were analyzed through thematic analysis method using MAXQDA. The students from tamang community who had sufficient lived experiences of online learning were interviewed, in the next step all the interviews were transcribed then each and every interview was carefully studied and line by line checked for the identification of the basic themes (lack of smartphone access, family income, digital unawareness, poor internet connectivity etc.), finally these basic themes were categorised as main themes.

DISCUSSION

In the present study the investigator had employed descriptive phenomenological approach to identify the hinderances of digital education in rural Tamang dominated village in West Bengal. This study critically examined the effects of digital divide on the performance of the rural school students from Tamang community and also revealed that the economically weaker Tamang students were performing low in learning activities and they did not have any awareness about the NCERT's online school courses due to inadequate digital infrastructure, lack of digital gadgets like smart phone, computer, laptop etc, and poor internet connectivity. This scenario had been exploiting the equality education in rural Tamang areas in West Bengal. This study had also provided some crucial information about the parents of tamang student, majority of the Tamang parents did not have any digital knowledge or digital literacy, many of them sometimes used internet for purpose of the entertainment. On the other hand, some students of economically high background had smartphones with internet connectivity and they were aware about

digital learning and enrolled in the NCTER's school courses to upgrade their knowledge for the development of their carrier.

CONCLUSION

In our education system, effective teaching and learning is more important aim whether it be traditional or digital mode of education. In the present context online learning has potential benefits for all group of learners especially the marginalized tribal people. Various research studies had shown that online digital learning positively impacted on student's performance and outcomes. The finding of the present research also clearly indicated that students who had smartphone with internet connectivity were more active in academic performance rather than who did not have, rural tribal students cannot afford the benefits of online digital learning. Therefore, it is highly needed to prepare proper grassroots level of planning and make proper policy framework to promote the inclusion of digital education among the marginalised tribal students.

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