



Gender Gap in Literacy Levels: a case study of Darjeeling District, West Bengal, India

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Abstract

Education is positively correlated with the process of development in any country. Generally, it is the instrument of modernization of the prevailing socio-cultural traditions. Despite rapid growth of literacy rate in post-independent India, gender bias or so called deprivation still exists in the field of education that needs to be eliminated on an urgent basis. The present study concerns the pattern of spatial variations across blocks in literacy rates of males and females of the Darjeeling district, West Bengal, in order to bring out the nature and magnitude of gender bias in terms of intra-regional inequalities of literacy rates at micro level. It also explores the nature of relationships between literacy rates, disparity indices and the socio-economic parameters of the study area in detail.

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Introduction

Education is deeply embedded in the socio-cultural construct of a nation. It is considered as the crucial anthropogenetic yardstick for judging social transformation and economic development of the country. It is positively correlated with the development process and is considered instrumental for the modernization of the socio-cultural traditions. It is found that, the demand for girl's schooling is more responsive than boys' to gender neutral changes in school cost or distance as well as quality (Glick, 2008). It is also universally recognized that there are some particular benefits in female schooling like improved child nutrition and (schooling and also) reduced fertility rates (Schultz, 2002). Thus, the literature relating to gender differences in educational achievement is vast and highly complex. A large number of explanations

have (also) been offered by various social scientists. But, for the most part, explanations tend to cluster around three themes biological factors, gender theory and school factors (Gibb, Fergusson and Horwood, 2008).

Women Education in Indian Context

Indian National Plans and Policies have consistently reflected a vision of progress. It has not only accentuated on the enhancement of the standard of living but has also laid clear and sharp emphasis on the achievements of human rights, freedoms and well-being for all, irrespective of caste, class and gender. India has led the world in ratifying UN Conventions and international covenants like the Convention on the Elimination of all forms of Discrimination against Women (CEDAW) and the Beijing Platform for Action. The last few years has

seen dramatic increase in the rate of women participation in every aspect of social, economic and political sectors of the country. These achievements reflect the result of years of determined advocacy, campaigning, and action for change by women themselves.

Despite the rapid literacy growth rate in post-independent India, gender deprivation still exists, that needs to be overcome in majority of districts of the country. Despite progressive increase in female literacy rate, slightly more than half of the female population was literate in 2001 as against three-fourth of the males. Thus, it took almost five decades for male-female disparity to reduce to half of what it was in the 1960s. Following the same logic, it will take another five decades to finally minimize the gender gap in terms of literacy attainment in India. However, the Gross Enrolment Ratio (GER) shows a pyramidal structure with a broad base at the primary level and gradual tapering to higher levels. The early decades of Independence saw huge disparity between boys and girls at the primary level, with the situation being even worse at the upper primary level. Undoubtedly, the gender disparities over the years has decreased; yet substantial gender gap in enrolment at the elementary level still persists. Various Five Year Plans and Committees including the National Perspective Plan (1988-2000) has stressed the need for greater participation of women in higher education, but still unfortunately the gap is sharply visible. However, in recent years it shows a narrowing trend.

Census data shows that in recent years there has been an increase in levels of literacy of women both in rural and urban areas. Girl children and women have been the central targets of the educational policies and family planning programmes of the country. After the 1993 Vienna Conference on Human Rights, the International Conference on Population and Development (ICPD 1994), and the 4th World Conference on Women held at Beijing (1995), the health sector witnessed a paradigm shift in the sense of locating health within a comprehensive framework of poverty reduction, women's empowerment, reduced social inequalities, economic growth, and women's rights to better health, choice, and safety in reproduction. India's 11th Five Year Plan (2008-2012) tried to

restructure policies to achieve a new vision of growth, which aimed at a faster reduction of poverty and (helping) helped in bridging the gender gap in all spheres of society especially in education sector.

As far as the male-female disparities are concerned, it is important to note that, since independence, there has been a substantial increase in female enrolment in education. In spite of such a substantial increase, the ratio of male and female students in education remains disproportionate. The relative deprivation of women in the field of education is (particularly) significant because it primarily underlines all other attributes of deprivation. Undoubtedly, the scheduled castes population is deprived, but scheduled castes women are more deprived than their men-folk. Likewise, the rural population as a whole are deprived (no doubt) but the rural women are more deprived than their men-folk.

Education provides the basal stratum for the multi-level educational pyramid and may therefore be viewed as an important input in the national development process. The spatial patterns of educational attainment thus acquire special significance in this context as strands in the fabric of imbalances as well as inequalities in national development.

The Study Area

The origin of the socio-cultural and socio-economic diversity in India lies in the geographical framework of the Indian sub-continent including the state of West Bengal. It is the physical framework of the extreme northern part of the state containing the district of Darjeeling, which provides the basis for diversities in landforms, ecological differences and cultural attributes. At the 1st level of generalization, there are two distinct physiographic units, viz., the Himalayas and the forest covered Terai which also set the stage for differentiation in ecological pattern. Within each of these macro-regions, differences exist in the physical as well as in the climatic characteristics, which contribute to the 2nd order differentiation in habitat.

Physiographically, the district shares international boundary between Nepal, Bhutan and Bangladesh that also influences the cultural interaction of the local people resulting in social and economic changes. The long history of migration of different

groups with different customs and cultures that managed to reach in this region from different parts of Asia, mainly South-East Asia at different points of time shows how different cultural groups distributed themselves in space depending on the ecological setting in conformity with their own primordial mode of economy. Thus, the cultural history reveals that the diversities were rooted basically in the environmental setting of the region. It also shows that, the people who came to settle in different regions also came with diverse cultural traditions. They did not take similar paths in the history of social evolution. The cultural differentiation was also the end product of primary differences in human initiatives and ingeniousness. These contrasts were further strengthened by the fact that, the human decision-making, which was directed from the nodes of power, neglected the inter-fluvial tracts and the rim lands because of their perceived agricultural endowment.

Aspects of Gender Gap in Literacy

Since the dawn of civilization, education and socio-economic development have been inherently linked through bi-directional causality. The inequalities of educational attainment among two sexes has been both the cause and the effect of the difference between their levels of socio-economic development. This is particularly applicable for the levels of literacy as it provides the essential pre-condition for educational development as well as the overall socio-economic development of a country. While in the developed world, the industrial revolution had created conditions for the need of a literate workforce resulting into a slow and steady way to universalization of literacy, (but) the associated process of the development in the underdeveloped and developing world which were under colonial empires was characterized by the persistence of inequalities in the levels of literacy and followed by a very slow rate of economic development.

If we recapitulate the socio-economic background within which the present day disparities in the educational system have emerged in the Indian context, then the disparities between male and female population can be emerged as the first and foremost aspect of consideration. Such disparities are rooted in the persistence of some

attributes of the unauthentic modernization of the colonial era. This results into the denial of educational opportunities to the women. The relative deprivation of women in the field of education was particularly significant because it underlined all other attributes of deprivation. The doors of educational institutions were not open to country's womenfolk as an integral part of the backward looking colonial policy of strengthening the male dogmatic tendencies in the polity. The persistence of low level of female literacy is evident from the fact that it increased from 0.60 percent in 1901 to only 7.3 percent in 1941. A movement for women's education in the Indian social context is therefore very much needed to decrease the gender gap in literacy. This gap in male-female inequality strikes at the very roots of the passive system of social inequalities interweaving the Indian polity, continuously sucking out its life blood and rendering it anaemic and weak. Hence, women's education is an instrument of liberation of not only of women but of Indian society as a whole.

Objectives of Study

The present study involves the analyses of the variations across regions in the literacy rate of males and females which actually reveals the nature and magnitude of intra-regional inequalities in terms of literacy of two parts of its population. With a view to examine the multifaceted and complex phenomena, it is therefore important to define the binomial elements in terms of which the inter-regional variations in intra-regional disparities may be analyzed. It may be of considerable interest to examine the nature and magnitude of inter-regional disparity between male and female literacy rates.

If the disparities have been examined either with states as the unit of analysis or within the similar sub regions of only one state on macro level, then due to the heterogeneous character of these macro and meso regions there may be some erroneous conclusion. The only alternative is therefore, to consider the micro regional study on block level. The block, as an administrative unit represents the picture at the grass root level and also has a particular vitality which is the function of its socio-cultural homogeneity, dialectal uniformity and historical continuity. It is at this level that the macro processes get rooted into the micro worlds

providing the unity in diversity. In this way, the priority moves from the system of vertical linkages of sectoral planning to the system of horizontal linkages of regional planning. This is particularly true for the domain of educational development, wherein specificity and universality are fundamentally linked together.

The first stage of the present study would, therefore, relate to the measurement of the gap between the male and female literacy rates on micro-level (here on Community Development Block level). This would then be followed by an examination of the inter-regional variations in the measured values and then these values will be used to conclude on district level the socio-economic implication.

It must, however be recognized that the present study has brought out with the objective of showing the path, also a detailed empirical investigations at a micro level. As a response to this need, an attempt is being made here firstly, to examine the pattern of inequalities in the spread of literacy and secondly, to examine the inter-relationships between levels of literacy and different types of inequalities in literacy rates on the basis of a cross-section of block wise data.

Data and Methodology

The data for the present analyses has been taken from the 2001 census on district level as well as C.D. Block level. The first step of analysis concerns the selection of binomial elements, in terms of which disparity had to be measured. In the light of data availability, the following six groups have been identified for the measurement of disparities in literacy rates (i) Male-female, (ii) Rural (male-female), (iii) Urban (male-female), (iv) Rural-Urban, (v) Male (rural-urban), and (vi) Female (rural-urban). The second step relates to the choice of a suitable measure of disparity, of which the most popular ones are—

1. measuring the arithmetic difference between the two absolute numbers or between two proportions,
2. the ratio of one to the other,
3. gleaning the two sets of data for pattern of variation, i.e., visually comparing the two mapped patterns and
4. statistical measurement of inequality in

terms of index of disparity after Sopher (1974).

However, the first three methods are not statistically valid and the imperceptive use of them can lead to imperfect wrapping up. Keeping this in mind, Sopher's (1974) index has been used as follows—

$$Di = \log \left(\frac{x_1}{x_2} \right) + \log \left(\frac{k - x_2}{k - x_1} \right)$$

where $x_1 > x_2$ and $k = 100$.

The third step relates to the selection of suitable indicators so as to examine the nature of relationships between literacy rate, disparity indices and socio-economic characteristics. The following attributes of the social and economic base of the blocks have been taken for analysis x_1 (total literacy rate: %), x_2 (disparity index of male-female literacy), x_3 (disparity index of rural male and rural female literacy), x_4 (disparity index of urban male and urban female literacy), x_5 (disparity index of rural-urban literacy), x_6 (disparity index of rural male and urban male literacy), x_7 (disparity index of rural female and urban female literacy), x_8 (SC population: %), x_9 (ST population: %), x_{10} (cultivators: %), x_{11} (agricultural labourers: %), x_{12} (household industrial worker: %), x_{13} (other workers: %), x_{14} (rural literacy: %), x_{15} (urban literacy: %), x_{16} (rural population: %) and x_{17} (urban population: %).

Spatial Pattern of Gender Gap in Literacy Rate

Literacy is considered as one of the most popular indicator of educational development in a region. Though the Union Govt. of India aims at reaching 100% literacy, but in 2001, the effective literacy rate (i.e., for 7+years age group) was only 65.40%. For Darjeeling district, it was about 71.79% that increased to 79.92% in 2011 (Census of India, 2011). Despite various efforts initiated by the Government of India since independence, such as total literacy campaigns, formal center-based adult education programmes, the launching of the National literacy mission, and expansion of school education, including non-formal education, one-third of the population remains still illiterate. In spite of the mission of 'education for all', spatial and gender disparities in literacy is very high in the whole country as well as in the whole district. For

example, the rate of literacy among rural females in 2001 was only 55.39%, while it was about 87.66% for urban males. Among total population of the study area, the literacy rate for male was about 80% while for female it was only 63%. Thus, there are about 17 points of gap between male-female literacy rates. Low female literacy is the result of negligence of women in society and differences in attitude towards boys and girls regarding education. Not only that, but also adult literacy has long been neglected and the pattern of allocation of public resources to literacy and adult education programmes remains quite unsatisfactory.

The district shows a comparatively high literacy rate of more than 70% in 2001. In the district, about 58% of the blocks record high literacy rate with more than 70% effective literacy rate, about 25% record medium literacy rate (59.45 - 70%) and the remaining 17% recorded very low literacy rate (below 59.45%). Among the blocks, maximum literacy of more than 80% has been recorded in the extreme northwestern part of the district covering Darjeeling-Pulbazar block. There are six blocks which record literacy rate between 70 - 80%. Lowest literacy rate of below 50% is recorded in extreme southern part covering two blocks, viz., Kharibari and Phansidewa. Thus the general trends are decrease of literacy from north to south as well as from mountains to plains.

Patterns of the rate of literacy is not only uneven among the blocks, but variations by gender are also very high. For example, block wise maximum female literacy is 74% while that for male is 88%, both being found in the extreme north-western block. On the contrary, the extreme southern block records the lowest female literacy (38%) while the lowest male literacy of the district is 62%. It is to be noted that due to hilly terrain, the northern blocks possess high rate of out-migration of male population while because of the plain landscape, the southern blocks receive large male population of middle age. Except these two extremes, there are some blocks with a topographic combination of hills and plains. About 66% people are literates in rural areas of the district (male = 76% and female = 55%), while about 88% of male population and 79% of female population are literates in urban areas with an average of 83%. Thus, rural literacy is comparatively low, being

maximum (77%) in Jorebunglow-Sukhiapokhri and minimum (50%) in Phansidewa.

Major Findings

Even after fifty years of planned development, the disparities in male-female literacy in all its facets have continued to be fairly high over a large part of the district so much so that they have significantly high values in nearly half the number of blocks in the district. In most of the blocks main characteristic feature is the existence of a significantly high magnitude of intra-regional disparities in literacy rates between different binomial elements (therein). Such disparities do not operate in isolation from each other but are intrinsically interlinked with the historical processes which have resulted in a distorted socio-economic structure of the national space. Planning in India since independence has been aimed at altering this structure through massive public investment in vital sectors of the economy. Some important facts emerge from the present study—

1. The disparity index of total male and total female literacy is very low (<1.2) in Darjeeling-Pulbazar and Kurseong blocks, low ($1.2 - 1.3$) in Kalimpong-I and Jorebunglow-Sukhiapokhri, medium ($1.3 - 1.4$) in Mirik, Matigara and Rangli-Rangliot, high ($1.4 - 1.5$) in Kalimpong-II, Gorubathan and Naxalbari while very high (>1.5) in Kharibari and Phansidewa.
2. The disparity index is maximum (1.51) between rural male and female literacy, followed by the one (1.47) between rural and urban female literacy.
3. The disparity index is minimum (1.11) between urban male and female literacy.
4. Literacy of the rural womenfolk is of crucial significance in the process of educational development of the whole region, affecting the process of modernization of the rural livelihood as well as rural economy.
5. The level of literacy is significantly negatively associated with all the six types of disparity indices. Thus, the blocks with low levels of literacy have high levels of disparities and vice versa, thereby implying the fact that the diffusion of literacy has been accompanied by a corresponding reduction

in the magnitude of disparities. It corroborates that there is no contradiction between equality and growth. The Education Commission (1964-66) accorded great emphasis on the aspect of equality in the growth of education.

6. In view of the rural dominance in the population of the country, rural literacy emerges as the major determinant of the level of over-all literacy. It is also significantly related to different types of disparity indices. Though the Darjeeling district possesses about 68% of rural population, the correlation coefficient between total literacy and rural literacy is 0.91 as compared to 0.47 with urban literacy. In the Indian context, the growth of overall literacy has been particularly determined by the slow progress made in the diffusion of literacy in rural areas.
7. The hilly terrain may be held responsible for slow progress in educational development as the rural children of majority of the blocks does not have proper access to schools.
8. The correlation coefficient between proportion of workers engaged in various primary and agriculture based activities is both negative and significantly high. It is -0.11 in case of total cultivators and it is -0.76 in case of total agricultural labourers. Thus, the blocks which are mainly dependent on various agricultural activities have low literacy levels.
9. There is a positive and significant relationship between levels of literacy and proportion of workers engaged outside these traditional combinations of primary activities and household industries (+0.39).
10. The value of correlation between different indices of disparities and rural female literacy is higher than the corresponding values of urban literacy. This may be attributed to the fact that the extent and intensity of socio-economic inequalities particularly that of male dominance in education is higher and more deeply entrenched in the rural society than in the

urban hierarchy.

There is no denying fact that, literacy is the foremost important aspect in the overall development of any nation. As women account for about 48% of total population of India, (hence) they have played a vital role in the socio-cultural as well as political set up of the country. In order to bring equality, our Constitution envisages a social order that is just equitable, where all citizens have equal opportunities and there is no discrimination on the basis of sex. Gender equality is the underlining principle of our Fundamental Duties and Directive Principles of State Policy. The Parliament of India has enacted the Right to Free and Compulsory Education Act, 2009 to ensure access to education to all children including girls of the age of 6 to 14 years. Our National Policy on Education emphasizes on the removal of disparities and on equalizing educational opportunities by attending to the specific needs of those who have been denied equality so far.

Conclusion

Thus, there are strong associations between the indicators of literacy rate, social disparities and the economic base characteristics of a district and these are intrinsically interlinked. Based on these findings it may be proved that there exists deep causal relationship between the gender gap in literacy and all indices of regional development including those of social structure and economic base of a country. Urbanization contributes to the raising of literacy rates at all levels and the lowering of the gender disparities therein. This may be attributed to the fact that there is a strong tendency among the literates to migrate from the rural to the urban areas and to the strong urban bias in the provision of facilities for the formal as well as the non-formal education. In view of the fact that the literacy rates and the disparity indices always take positive values, the blocks with high levels of literacy tend to have low disparities. Therefore, on the whole it is to be stated that, with the spread of literacy at all levels, disparities tend to narrow down.

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Table - 1: Blocks and Urban Centres of Four Sub-Divisions in Darjeeling District

	Darjeeling Sub-Division	Kalimpong Sub-Division	Kurseong Sub-Division	Siliguri Sub-Division
C. D. Blocks	1. Darjeeling- Pulbazar 2. Rangli-Rangliot 3. Jorebunglow-Sukhiapokhri	1. Kalimpong –I 2. Kalimpong- II 3. Gorubathan	1. Mirik 2. Kurseong	1. Matigara 2. Naxalbari 3. Kharibari 4. Phansidewa
Urban Centres	1. Darjeeling 2. Patabong Tea Garden	1. Kalimpong	1. Mirik 2. Kurseong 3. Cart Road	1. Siliguri 2. Bairatisal 3. Uttar Bagdogra

Source: Census of India, 2001

Table – 2: Disparity Index among Total Male and Total Female Literacy, 2001

Ranges of Disparity Index	No. of C.D. Blocks	Proportion of C.D. Blocks
<1.2	2	16.67
1.2- 1.3	2	16.67
1.3- 1.4	3	25.00
1.4-1.5	3	25.00
>1.5	2	16.67

Source: Computed by the author

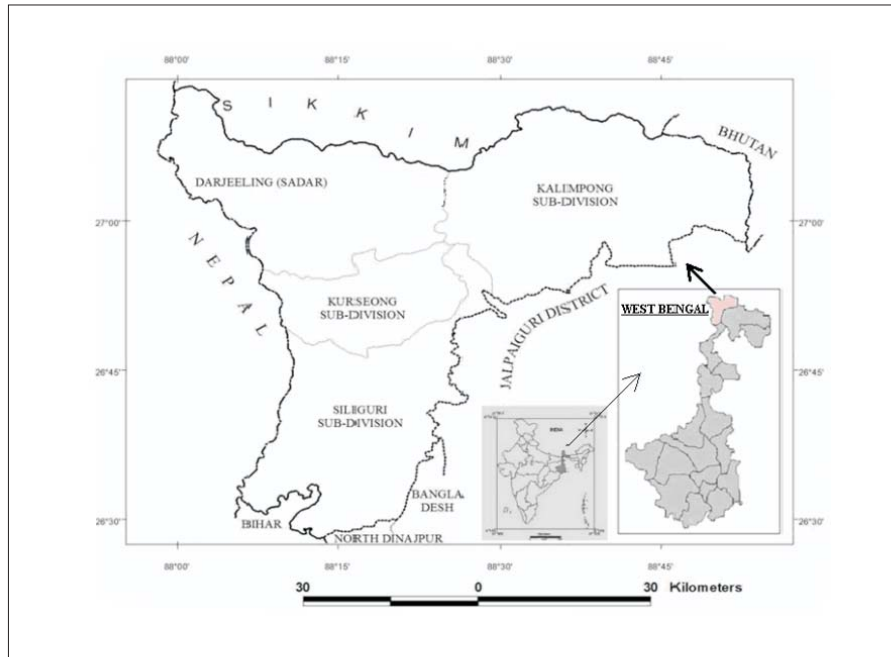


Fig. 1: Location Map of the Study Area

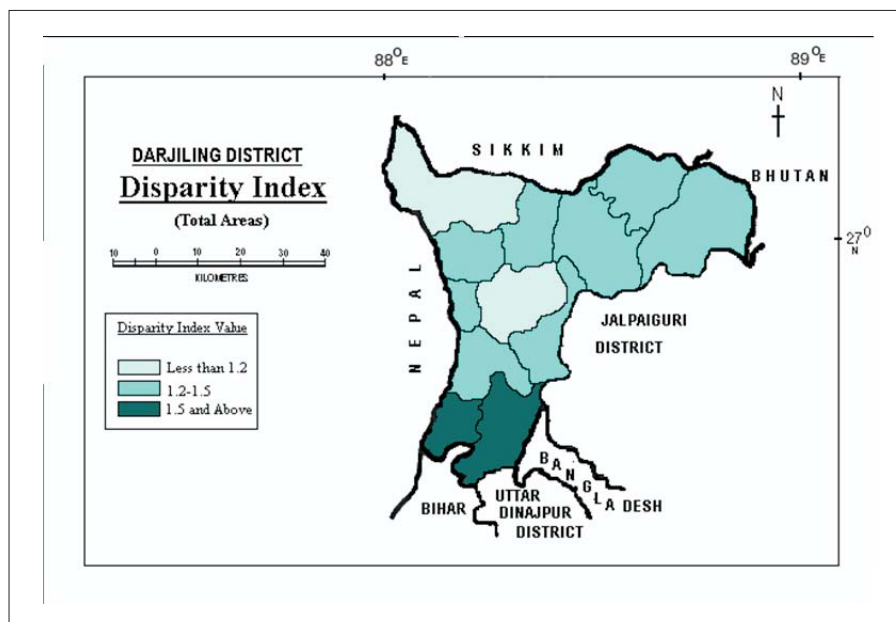


Fig. 2: Disparity Index among Male and Female Literacy, 2001



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