A Comparative Study of Male-Female Literacy in Ahmednagar District of Maharashtra State (India)

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Abstract: *The current paper aims to comprise the spatial pattern of male-female literacy and disparity between them in Ahmednagar district of Maharashtra State during 2011. The current study is especially supported the secondary data. Sophers modified formula by Kundu and Rao (1983) is used to measure the male-female disparity in literacy. The present study shows that overall and male-female disparity in literacy is decreased within the last decade with increasing literacy rate. Literacy and educational attainment are affecting on demographic behavior related with marriage, fertility, mortality, migration, and work participation rate. A high level of literacy rate is an important factor in the process of modernization. As per the 2011, Literacy has been defined as "A person aged seven and above, who can both read and write with understanding in any language, is treated as literate".*
Keywords: *literacy Rate, Educational Attainment, Spatial Pattern, Disparity*

Introduction

Literacy and educational attainment are affecting on demographic behaviour related with marriage, fertility, mortality, migration and work participation rate (Bhende and Kanitkar, 2011). A high level of literacy rate is an important factor in the process of modernizations. Literacy is a very important tool for communication, learning and information, thus literacy is a virtual pre-condition for individuals and for national development (Krishna, 2004).

According to the 2011 census, Literacy has been defined as "A person aged seven and above, who can both read and write with understanding in any language, is treated as literate". In India from 1991 onwards, population in the age group 0-6 years is excluded while calculating the literacy rate. As per the 2011 Census, the total literacy rate of Ahmednagar district is 77.91 per cent out of which 86.07 per cent are males and 69.35 per cent are female literates.

The Study Region

Ahmednagar district is situated partly within the upper Godavari basin and partly within the Bhima basin occupying a somewhat central position in the Maharashtra state. It lies between 18^0 2' and 19^0 9' north latitude and 73^0 9' and 75^0 5' east longitude. It is surrounded by Nashik and Aurangabad districts to the north, Beed and Osmanabad districts to the east, Solapur and Pune districts to the south and Pune and Thane districts to the west. Topographically the district can be divided into three parts. i.e. the Sahyadry range, plateau region and Bhima, Godavari basins. The climate of the district is generally hot and dry, except during the south west monsoon season (Pawar, Ramotra and Patil, 2016).

Fig 1 Location Map of Ahmednagar District

Objectives

1. To comprise the spatial pattern of male-female literacy in 2011.
2. To analyse the male-female disparity in literacy during 2011.
3.

Research Methodology

Ahmednagar district has been taken for present investigation. The proposed study is entirely supported secondary sources of statistics which is collected form Socio – Economic Review and District Statistical Abstract of Ahmednagar, Census Handbook of Maharashtra and Ahmednagar District during 2011 (Pawar and Patil, 2016).

The literacy rate is calculated by using the following formula,

$$\text{Literacy Rate} = \frac{\text{Total Literate Population}}{\text{Total Population (Above 6 years of age)}} \times 100$$

To measure the gender disparity in literacy, the disparity index formula propounded by David. E. Sopher is as follows:

$DS = \log (X2 / X1) + \log (100 - X2)\ldots\ldots\ldots I$

For the aim of present paper used disparity index formula modified by Kundu and Rao (1983) is as follows:

$DS = \log (X2/X1) + \log (200-X1) / (200-X2)\ldots\ldots\ldots II$

Where $X1$, $X2$ are the female and male literacy rates.

Total and Male-Female Literacy rate, 2011

Total Literacy Rate, 2011

In the study area, we have observed continuous increase in the overall literacy rate during the last decade (Table 1). The overall literacy rate increased from 73.91 to 77.91 per cent in 2001 to 2011. The patterns and trends in literacy are considered as an index of the pace at which the socio-economic transformation of a society is taking place (Mitra, 2012). It is observed that spatial variation in literacy

rate remains to exist in the study area (SD = 3.96). The tahsil-wise literacy rate shows the highest literacy rate was found in Nagar tahsil (86.35 per cent). It is because of Nagar tahsil having district head quarter, urban and industrial center. On the other hand lowest literacy rate was found in Jamkhed tahsil with only 72.62 per cent in the district. This is because of its drought-prone nature, economically less developed tahsil, having poor educational and infrastructural facilities. In 2011, only Nagar tahsil (86.35 per cent) was observed with the very high literacy rate (Above 85 per cent) in 2011.High literacy rate was observed in as many as 8 tahsils, for instance Sangamner (79.96 per cent), Kopargaon (79.84 per cent), Rahata (82.08 per cent), Shrirampur (82.12 per cent), Nevasa (78.51 per cent), Rahuri (79.74 per cent), Parner (75.64 per cent) and Shrigonda (76.25 per cent). It is because of improvement and betterment in the educational and infrastructural facilities. There are as many as 5 tahsils observed with the moderate literacy rate (65 per cent to 75 per cent) in 2011. The tahsils, like Akole (74.86 per cent), Shevgaon (73.94 per cent), Pathardi (74.74 per cent), Karjat (74.11 per cent) and Jamkhed (72.62 per cent) are identified with moderate level of literacy rate in 2011.

According to the primary census abstract 2011, As compared to the district average, there are 7 tahsils show literacy rate is above the district average (79.05 per cent). These tahsils are like, Nagar, Shrirampur, Rahata, Sangamner, Kopargaon, Rahuri and Nevasa. It is because of all above tahsils having urban centers, economically, agriculturally and industrially developed and its surrounding areas reflected with the better educational, transportation and infrastructural facilities (Pawar , 2013).

Literacy rate below the district average is observed in remaining 7 tahsils, like Shrigonda, Parner, Akole, Pathardi, Karjat, Shevgaon and Jamkhed. There is no doubt that, all the tahsils observed with the increase in overall literacy during the last decade due to the opening of large number of primary, secondary and higher secondary schools in the rural areas and socio-economic upliftment among the rural masses, resulted in the improvement in male-female literacy rate and their educational status even in the drought-prone and tribal tahsil also.

Table 1 Male-Female Literacy Rate and Disparity in Ahmadnagar District, 2011

Sr. No.	Tahsil	2011			
		Total	Male	Female	DI*
1	Akole	74.86	84.09	65.5	0.17
2	Sangamner	79.96	87.58	71.98	0.14
3	Kopargaon	79.84	87.58	71.68	0.14
4	Rahata	82.08	88.72	75.13	0.12
5	Shrirampur	82.12	89.27	74.8	0.13
6	Nevasa	78.51	86.53	70.05	0.15
7	Shevgaon	73.94	84.15	63.42	0.19
8	Pathardi	74.74	84.98	63.85	0.2
9	Nagar	86.35	91.47	80.9	0.09
10	Rahuri	79.74	87.42	71.65	0.14
11	Parner	75.64	84.23	66.78	0.16
12	Shrigonda	76.25	84.09	67.88	0.15
13	Karjat	74.11	82.57	64.98	0.17
14	Jamkhed	72.62	82.31	62.26	0.19
District Average		77.91	86.07	69.35	0.15
SD		3.96	2.71	5.36	0.03

Source: District Census Handbook of Ahmadnagar District 2011.

Male and Female Literacy Rate, 2011

Table 1 and Fig 2 represent the spatial patterns of male and female literacy rates during 2011. As per 2011, the gender-wise average literacy rate is 86.07 per cent for males and 69.35 per cent for females in the study area. It is observed that Nagar tahsil has the highest literacy rate for both males and females i.e. 91.47 per cent and 80.90 per cent respectively, whereas Jamkhed tahsil has the lowest literacy rate, i.e. 82.31 per cent and 62.26 per cent for males and females respectively. The male and female literacy rate improved in almost all the tahsils of the study area during 2011.As many as 7 tahsils are recorded with very high (Above 85 per cent) male literacy rate, while none of the tahsil recorded with the very high female literacy rates. Tahsils like Sangamner (87.58 per cent), Kopargaon (87.58 per cent), Rahata (88.72 per cent), Shrirampur (89.27 per cent), Nevasa (86.53 per cent), Nagar (91.47 per cent) and Rahuri (87.42 per cent) fall in the category of very high literacy rate for male, while none of the tahsil achieved this category with respect to female literacy rate.

As many as 7 tahsils, viz. Akole (84.09 per cent), Shevgaon (84.15 per cent), Pathardi (84.98 per cent), Parner (84.23 per cent), Shrigonda (84.09 per cent), Karjat (82.57 per cent) and Jamkhed (82.31 per cent) fall in the category of high literacy rate for male. Whereas only 2 tahsils, like Nagar (80.90 per cent) and Rahata (75.13 per cent) fall in this category in case of female literacy rate. None of the tahsil was noticed with moderate level of literacy rate for male, on the other hand moderate level of literacy for females was noticed in the 8 tahsils. These tahsils are like Akole (65.50 per cent), Sangamner (71.98 per cent), Kopargaon (71.68 per cent), Shrirampur (74.80 per cent), Nevasa (70.05 per cent), Rahuri (71.65 per cent), Parner (66.78 per cent) and Shrigonda (67.88 per cent).

Further, it is observed that none of the tahsil falls in the category of low literacy rate regarding male, while 4 tahsilsfall in the category of low female literacy rate. These tahsils are namely, Shevgaon (63.42 per cent), Pathardi (63.85 per cent), Karjat (64.98 per cent) and Jamkhed (62.26 per cent). Gender differences particularly marked especially in drought-prone and less developed tahsils in the study area.

Male-Female Disparity in Literacy, 2011

As per 2011, none of the tahsil was found in the category of very high or high disparities in male-female literacy rate, it is because of an increase in the overall as well as male-female literacy rate and also due to the increase in female literacy by a higher rate than male.

Moderate Disparity (0.18 to 0.24): In 2011, the medium disparity in male-female literacy rate was observed in Pathardi (0.20), Jamkhed (0.19) and Shevgaon (0.19) tahsil. Though, much of the improvement in the level of literacy and educational attainment, but literacy and educational development still far from satisfactory in all these tahsil.

Low Disparity 0.10 to 0.18): Low male-female disparity in literacy rate is observed in tahsils, like Rahata (0.12), Shrirampur (0.13), Sangamner (0.14), Kopargaon (0.14), Rahuri (0.14), Shrigonda (0.15), Nevasa (0.15), Parner (0.16), Akole (0.17) and Karjat (0.17) tahsil. This is because of much of the progress in overall as well as male-female literacy rate in 2011. The female disparity in literacy is narrowing down during 2011 as compared to male literacy.

Very Low Disparity (> 0.10): Only Nagar tahsil (0.09) was observed with a very low disparity in literacy among males and females. It is mainly because of comparatively more development of educational and infrastructural facilities than the rest of the tahsils.

Conclusion:

Present analysis clearly reveals that the highest overall literacy rate was found Nagar tahsil (86.35 per cent), while the lowest was found in Jamkhed tahsil (72.62). The study area has witnessed with increasing both male and female literacy rates. However, there is a significant gap and spatial variation between male and female literacy rate. Medium to low level disparity in female literacy than male was observed in 2011. It was observed that female literacy rate (69.35 per cent) remained lower than that of male literacy rate (86.07 per cent) in 2011 .It is further observed that the standard deviation for female literacy (SD=5.36) is more than male literacy (SD=2.71) in 2011. This means females are lagging behind much as compared to males in the case of literacy rates in the study area.
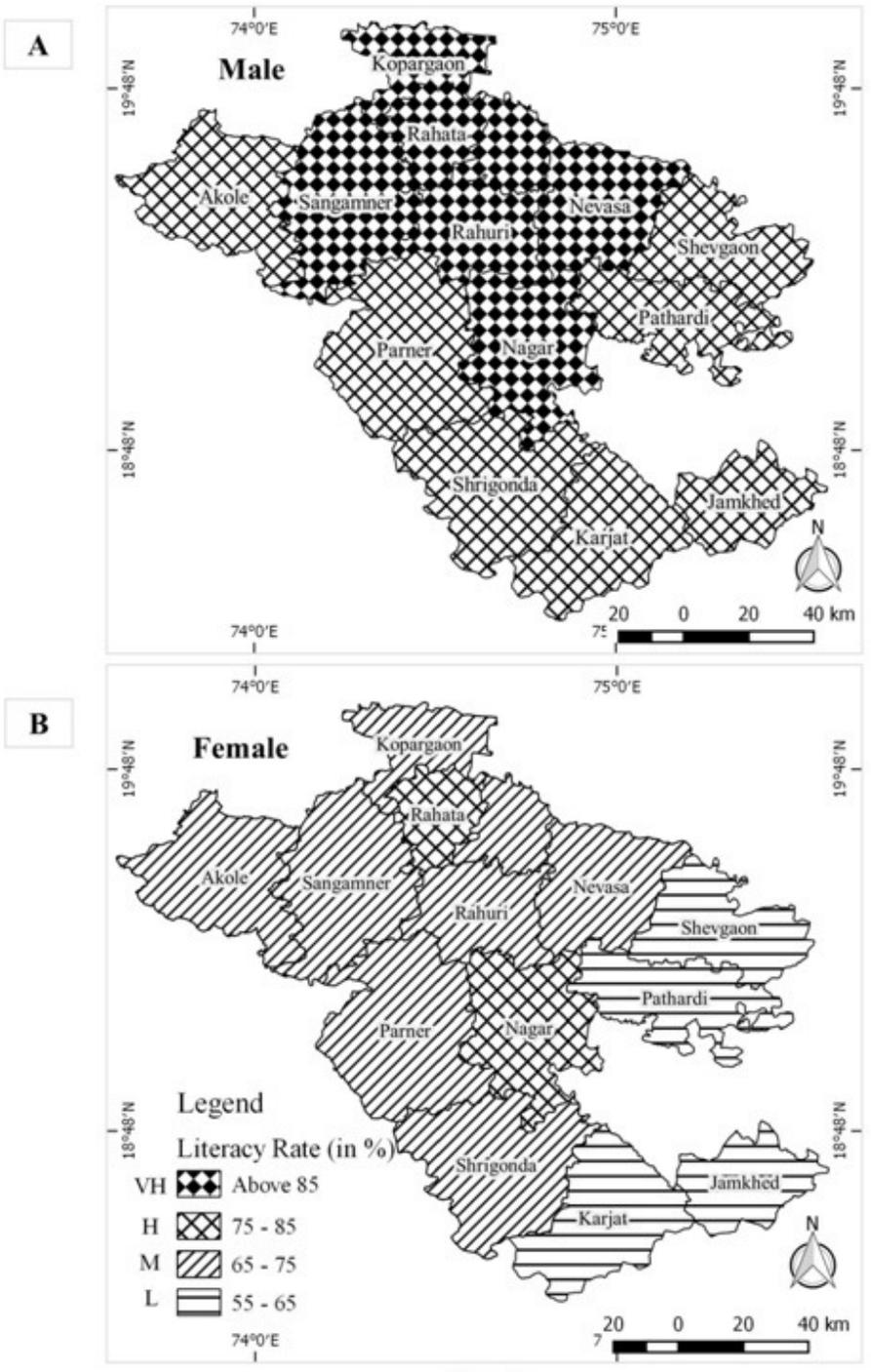
Fig. 2

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