

SPATIAL PATTERNS OF LITERACY RATE IN CHITTAURGARH DISTRICT

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Abstract

Literacy is one of the most important indicators of socio-economic and political development of a society. Literacy discharges many functions in the society, that is; Socialization, Communication knowledge and information, Contribution to social, political and economic development, Development of human resources, Character building and personality development, Social, ethical and democratic control. The study attempts to present the holistic picture of the pattern of literacy system in Chittaurgarh district. This study is an interpretative and analytical investigation of the impacts of literacy system on the community of the district, affecting the economic, social and cultural development of the place. During the last four decades there has been an appreciable continuous increase in the level of literacy as from 21.97 percent in 1981; it has risen to 61.71 percent in 2011 Census. When we examine the progress of literacy in 20th Century, it was slow till 1951. The rate of increase has been more important in the case of males, which increased from 33.95 percent in 1981 to 76.61 percent in 2011. In case of females the literacy has increased from 9.37 percent in 1981 to 46.53 percent in 2011 Census. The post 1951 period association with quickening pace of the urbanization process, opening of a very large number of new schools, social awareness about especially girls education development, new technology in schools and society, increasing educational facilities along with availability of female teachers in abundance particularly in rural areas, increasing value of female education for matrimony, increasing degree of socioeconomic awareness, waning social taboos and prejudices against female education, Scheduled Tribe and Caste.

Keywords: Literacy, Literacy Rate, Total Literacy Rate, Development, Awareness.

Date of Submission: 08-06-2023

Date of Acceptance: 18-06-2023

I. Introduction

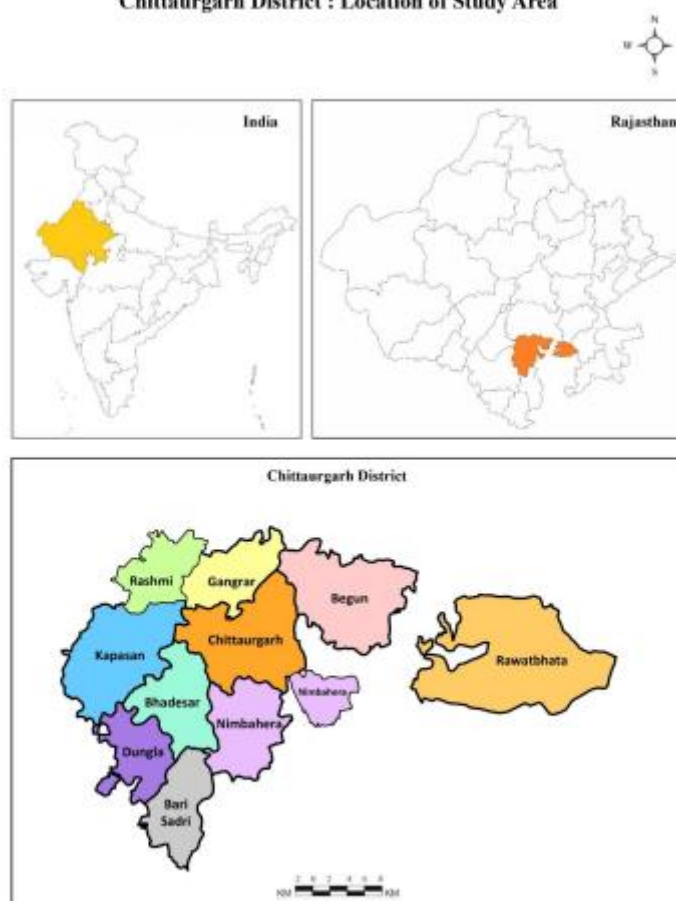
During the early years of 1946-58, one of the main objectives of UNESCO was fundamental education. The main aim of the fundamental education is that every person has a right to three 'R' is i.e., reading, writing and arithmetic. Literacy is one of the Importance parameter of education development of a nation. United Nations Organization and UNESCO place great emphasis on removal of illiteracy. Literacy means, formal school education and a person is functionally literate if he or she is able to engage in all those activities, in which literacy is required for effective functioning of his or her group and community for enabling him or her to continue use reading, writing and calculation. The concept of literacy, that varies from country to country, generally refers to the minimum level of literacy skills. The minimum level of skills varies from ability to communicate orally, to make a check of a variety of difficult arithmetical computations. However, schooling has often been considered as a basis of distinguish between a literate and illiterate. The population commission of United Nations considers the ability to both read, and write a simple message with understanding in any language a sufficient basic for classifying a person as literate. The Indian Census has adopted this definition. At the 1991 Census, it was also decided that all children in the age group 0-6 years will be treated as illiterate by definition and the population aged seven years and above only is to be classified as literate or illiterate. Literacy is being re-defined by the presence of technology in our schools and in our society. No longer does literacy mean only the ability to read with sense and write with clarity. Today's students used technological advancements across the curriculum, from mathematics to language arts, from music to exercise. Since the introduction of personal computers in 1980, technology has been part of the educational system. Most recently, with the advent of the internet and advanced software, technology has become a part of the daily lives, now we are shifting into a new age. Furthermore, in the past, literacy means being able to read, write and communicate. Mastering the language was the centre of literacy. Today, being considered literate does not mean being able to master the language of technology, but 46 instead being able to understand how to use the medium, being able

to use and array of technologies to gather information and communicate with others. Literacy is ability to access, analyze, evaluate and communicate messages in a variety of forms. Technology is changing the way we think about literacy and the features we consider in literate people- Education will play a major role in changing the old definition of new definitions of literacy and the social and moral implications associated with the advent of technology in the classroom. The most important thing is that the role of the teacher has to be transformed from the conventional model of the entire knowledge utensil to the convenience. Students will need to be encouraged to create their own meaning through thoughtful research and explanation. The entire community should be involved in this quest under the new digital literacy. The concept of 'situated literacy' draws attention to how the social, cultural and political context shapes the ways in which people acquire and use literacy. Literacy is one of the most important attributes among so many other qualities of a man; as literate person can understand and adopt new technologies and new policies in a better way in various sectors like agriculture, health, industries etc. In modern times education is considered to be as important a necessity for human being as food, shelter and clothes for them; even one cannot make proper use of ballot in democratic society without education. Today, there is high positive relationship between illiteracy and poverty; hence no program or poverty education can be successful without simultaneous program of exaltation of literacy.

Objectives

To study the growth of literacy, rated and development like demographic, social and economic structure.

Chittaurgarh District : Location of Study Area



In term of location the district is located between 23° 32' and 25° 13' north latitudes and between 74° 12' and 75° 49' east longitudes in the south eastern part of Rajasthan State. The district encompasses 10,856 sq. km. (3.17 per cent of the Rajasthan State) area of land. The topography of the district is generally undulating with hills belonging to the Aravalli Ranges scattering over the entire region. Chittaurgarh City is located at 24.88°N latitude to 74.63°E longitude. It has an average elevation of 394 meters (1292 ft). Chittaurgarh is

located in the southern part of the State of Rajasthan, in the north western part of India. It is located beside a high hill near the Gambhiri River.

According to Census 2011, the total population of Chittaurgarh district is 1,544,338 comprising 783,171 males and 761,167 females. It shares almost 2.25 percent of State population but 2.28 percent of State area. The density of the district is 197 persons per sq. km. which is lower than the State density (200 persons per sq. km.). Nearly 81.5 percent population of the district lives in rural areas where proportion of urban population to the total population is 18.5 percent. In Census 2011, the sex-ratio of the district is 972. The district is one among the seven districts having highest sex-ratio in the State. The district has high child (age group 0 to 6 years) sex-ratio i.e. 912. There are 201,546 Scheduled Tribe persons reside in the district which is only 13.1 percent of total population where as Scheduled Caste population shares 16.20 percent of total population. Literacy rate of the district 61.7 percent is lower than the State average 66.1 percent. Male literacy rate of the district 76.6 percent is lower than the state literacy rate 79.2 percent while female literacy rate of the district (46.5%) is lower than the State literacy rate i.e. 52.1%. Work participation rate of the district 52.0% is higher than the State 43.6 %. The male & female work participation rates of the district are 58.3% and 45.5% respectively. Chittaurgarh district has mainly Hindu population. As per 2011 Census the proportions of Hindu and Muslim population in total population are 91.5% and 6.3% respectively. The proportion of Sikh and Christian population in the district is 0.1%.

II. Methodology

As per the search presented, data obtained from various sources in statistical category has been classified differently for different purposes. The necessary literacy, population and related data for research have been obtained from District Census Handbook for the year 1981, 1991, 2001 and 2011. For this research, data from 1981 to 2011 related to population, literate population and literacy rate has been processed by a descriptive, numerical and mathematical method. But data is calculated according to the changes in the tehsils administrative boundaries. In 2007, Pratapgarh Tehsil was made the new district of Rajasthan as a result Chhoti Sadri and Arnod tehsils are now included in Pratapgarh district. There by, according to the available data of 2010, Chittaurgarh district is now divided in to ten tehsil. The following cartographic techniques are:

– The Spatial pattern of literacy is discussed on the basis of areal variations in terms of male-female, rural- urban, scheduled caste-scheduled tribe and general literacy tools used like: bar diagram and Choropleth method.

– I have employed statistical method to measure the comparison on between 1981, 1991, 2001 and 2011 for the change or growth of literacy rate.

Formula for computation of literacy rate and change rate

$$\text{Literacy Rate} = \frac{\text{Number of Literates}}{\text{Population aged 6 above}} \times 100$$

Change Rate=

$$\frac{(\text{Present Year Literacy Rate} - \text{Previous Year Literacy Rate})}{(\text{Previous Year Literacy Rate})} \times 100$$

III. Discussion

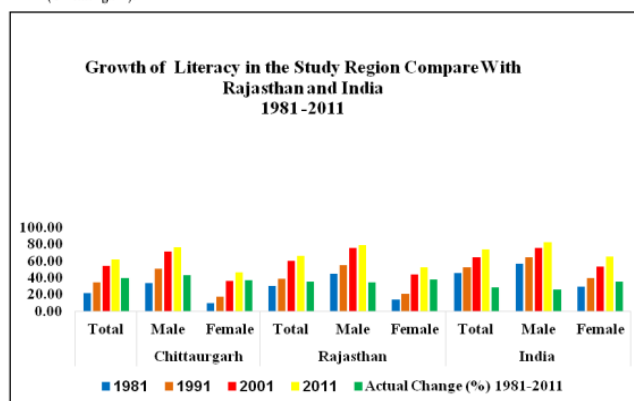
Literacy is one of the most important attributes among so many other qualities of a man; as literate person can understand and adopt new technologies and new policies in a better way in various sectors like agriculture, health, industries etc. In modern times education is considered to be as important a necessity for human being as food, shelter and clothes for them; even one cannot make proper use of ballot in democratic society without education. Today, there is high positive relationship between illiteracy and poverty; hence no program or poverty education can be successful without simultaneous program of exaltation of literacy.

Growth of Literacy in the Study Region Compare with Rajasthan and India, 1981-2011.

Year	Chittaurgarh			Rajasthan			India		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1981	21.97	33.95	9.37	30.56	44.76	13.99	45.56	56.37	29.75
1991	34.43	50.87	17.08	38.55	54.99	20.44	52.21	64.13	39.29
2001	54.00	71.50	36.00	60.41	75.7	43.85	64.84	75.26	53.67
2011	61.71	76.61	46.53	66.11	79.19	52.12	74.04	82.14	65.46
Actual Change (%) 1981-2011	39.74	42.66	37.16	35.55	34.43	38.13	28.48	25.77	35.71

Source: India, Rajasthan and District Census Hand Books.

Note: Data is calculated according to the changes in the tehsils administrative boundaries (Chittaurgarh).



The study area recorded remarkable growth of 39.74 percent (actual change) in literacy during 1981-2011 periods. The literacy rate in the study area was 21.97 percent in 1981 which was less than from the State’s average 30.56%, while the literacy rate increased in 2011 i.e., 61.71 percent as compared to 54.00 percent in 2001 and 34.43 percent in 1991, but it was always less than State’s average of 66.11 percent and 74.04 percent of national average in 2011. The growth of male literacy rate in the study area also recorded below the State and National average figure between 1981-2011. The male literacy was 33.95 percent study area in 1981 which was less than the State average i.e., 44.76 percent. In 1991, 2001 and 2011, male literacy increased to 50.87, 71.50 and 76.61 percent which is less than the State's average of 54.99, 75.70 and 79.19 percent. Male literacy rate is low in the study area as compared to Rajasthan average because of high percentage of population nearly 71.9 percent engaged in primary sector either cultivators or agricultural labourers, economically backward, poor availability of high level educational facilities, etc.

The female literacy rates have always been lower than the male literacy rate at all the levels. The study area has obtained better progress in than field of female literacy during the last decades. It has increased from just 9.37 percent in 1981 to 46.53 percent in 2011 i.e., an improvement of 37.16 percent and growth is 397 percent during last 30 years. Female literacy rate is low in the study area as compared to Rajasthan average 48 because of lack of social awareness about female literacy, less improvement in female status in the society, poor availability of separate educational facilities for girls.

Tehsilwise Total Literacy Rate

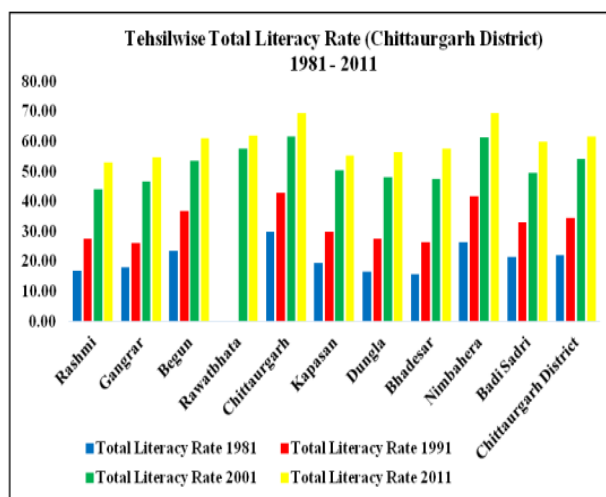
Socio-Economic development and literacy of a region are closely linked. A strong positive correlation has often been observed between the diffusion of literacy and socio-economic progress. A large number of factors influence the literacy of a region, but the important among these are type of economy, percentage of urbanization, standard of living, availability of educational amenities and institutions, development of means of transportation and communication, status of women in the society, prejudices against the female's nobility and education.

Among various determinants of literacy rates, the types of economy seem to be the most powerful parameter. In a predominantly agricultural economy, the literacy is generally low, in contrast to those areas where the industries constitute the main activity and the workers are employed in service sector. Similarly, those, areas which are more urbanized are also characterized by higher rates of literacy in comparison to those

which still are at low level of urbanization. There also exists a positive correlation between literacy rates and standard of living, higher the literacy rates and vice-versa.

Literacy to a large extent is dependent upon the availability of educational amenities and constitutions. The large number of schools and other sources of getting education, the higher are the literacy rates. The development of means of transportation and communication has opened new vistas in the field of literacy because it has increased the spatial interaction and the educational institutions in the urban areas now have become accessible to the countryside.

After considering the impact of various aforesaid socio-economic factors on the literacy rates in the area it has observed that there are massive spatial disparities in literacy rates within Chittaurgarh district from 21.97 percent in 1981 to 61.71 percent in 2011.



Tehsils	1981	1991	2001	2011
Rashmi	16.90	27.40	44.00	52.89
Gangrar	18.05	25.99	46.70	54.68
Begun	23.51	36.66	53.40	61.02
Rawatbhata	-	-	57.60	61.99
Chittaurgarh	29.76	42.83	61.70	69.39
Kapasana	19.48	29.69	50.30	55.25
Dungla	16.43	27.36	47.90	56.53
Bhadesar	15.67	26.33	47.4	57.68
Nimbahera	26.43	41.71	61.40	69.43
Badi Sadri	21.30	32.90	49.40	59.86
Chittaurgarh District	21.97	34.43	54.00	61.71

Source: India, Rajasthan and District Census Hand Books.

Note: Data is calculated according to the changes in the tehsils administrative boundaries (Chittaurgarh).

On the basis of total literacy rates as show in table the tehsils of Chittaurgarh district has been classified in the following three categories:-

- (a) **Areas of Relatively High Level of Total Literacy Rate-** There were two tehsil Chittaurgarh, Nimbahera in the range of 25-30 in the year 1981, three tehsil Chittaurgarh, Nimbahera, Begun in the range of 35 and above in the year 1991 two tehsil Chittaurgarh, Nimbahera in the range of 60 and above in the 2001 and two tehsil Chittaurgarh, Nimbahera in the range of 65-70 in the year 2011. This category covers 20-22.2 percent area of the district. These tehsil have experienced relatively high literacy rate because they are industrially developed, economically sound and having specialized educational institutions. In Chittaurgarh and Nimbahera large scale and medium scale industries are located like Zinc Industry, Cement Industry, Marble Industry, Engineering Industry etc. Thus, being an industrial based area several factors have also helped in the growth of its literacy rate e.g. high job opportunities, high standard of living, availability of high level educational amenities and institutions and well developed means of transportation and communication developed in agriculture field etc. The development of transportation and communication network has increased the degree of spatial interaction resulting into the eliminating of rural isolation.

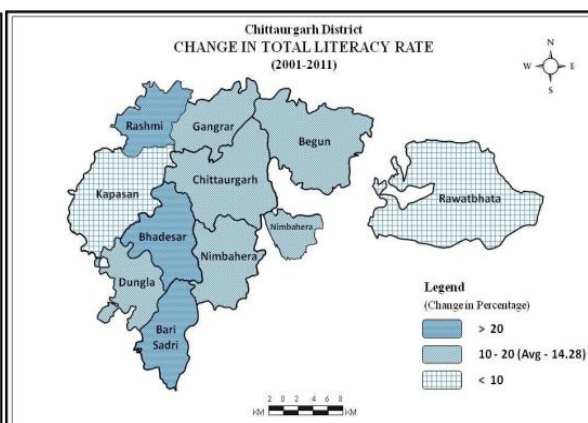
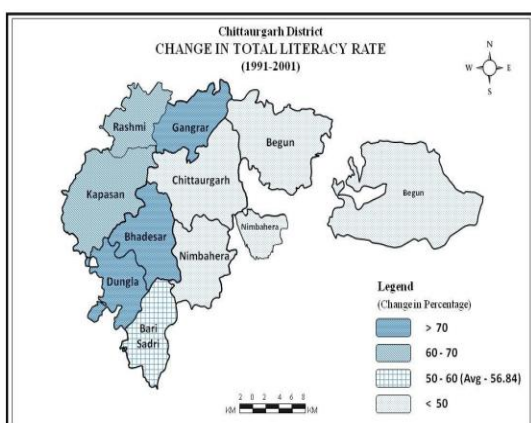
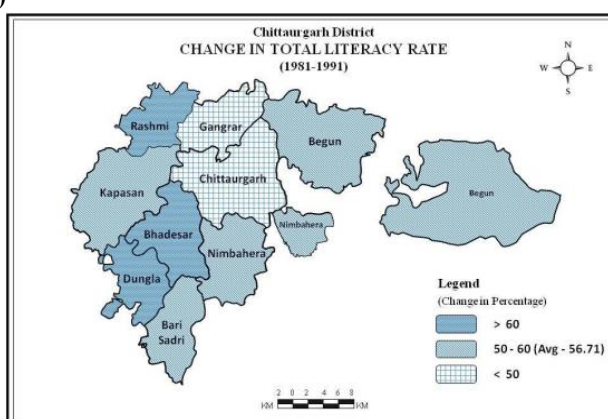
- (b) **Areas of Moderate Level Literacy Rate-** There were two tehsil Badi Sadri, Begun in the range of 20-25 in the year 1981, one tehsil Badi Sadri in the range of 30-35 in the year 1991, three tehsil Begun, Rawatbhata, Kapasan in the range of 50-60 in the year 2001, two tehsil Begun, Rawatbhata in the range of 60-65 in the year 2011. This category covers approximately 20-30 percent area of the district. These tehsil have experienced moderate literacy rate because the small and cottage industries are located like wooden furniture machinery repairs shop, granite industry, Atomic Nuclear Power Plant in Rawatbhata etc. These areas have primarily agrarian economy, and moderate literacy rate can be described to lack of industrial development, less educational facilities and socio-economic backwardness of the people.
- (c) **Areas of Low Level Literacy Rate-** There were five tehsil Bhadesar, Dungla, Gangrar, Rashmi, Kapasan in the range of 15-20 in the year 1981, five tehsil Rashmi, Gangrar, Kapasan, Dungla, Bhadesar in the range of 25-30 in the year 1991, five tehsil Rashmi, Gangrar, Dungla, Bhadesar, Badi Sadri in the range 40-50 in the year 2001, six tehsils Rashmi, Gangrar, Kapasan, Dungla, Bhadesar, Badi Sadri in the range of 55-60 in the year 2011. This category covers approximately 50-60 percent area of the district. These tehsil have measured low literacy rate because due to lack of industrialization, most of the people are engaged in agriculture but the size of landholdings is relatively large and demand for labour to work in the fields has increased. This reason keeps away any children from attending the school. In addition the poor families prefer their children to help them in making an earning rather than sparing them for schools. Several factors have also affected low literacy rate e.g. low level of income, lack of educational amenities, less developed means of transportation and communication, highly populated scheduled tribe and caste, socio-economic backwardness of the people etc.

Change Rate in Total Literacy Rate (1981-2011)

Tehsils	1981-1991	1991-2001	2001-2011
Rashmi	62.12	60.57	20.20
Gangrar	43.98	79.71	17.09
Begun	55.94	45.66	14.27
Rawatbhata	-	-	7.62
Chittaurgarh	43.93	44.06	12.46
Kapasan	52.41	69.39	9.84
Dungla	66.54	75.07	18.02
Bhadesar	68.05	80.00	21.69
Nimbahera	57.85	47.19	13.08
Badi Sadri	54.52	50.13	21.18
Chittaurgarh District	56.71	56.84	14.28

Source: India, Rajasthan and District Census Hand Books.

Note: Data is calculated according to the changes in the tehsils administrative boundaries (Chittaurgarh).



Chittaurgarh made a tremendous progress in the education sector in the last some decades and the rate of literacy has increased. The rate of literacy in Chittaurgarh district was 21.77 percent in 1981, which increased to 34.43 percent in 1991, further it increased to 54.00 percent in 2001 and 2011 it reached up to 61.71 percent. The change in total literacy rate from 1981-2011 has been 180.88 percent, which was 56.71 percent from 1981-1991, from 1991-2001 it was 56.84 percent and from 2001-2011 it has been 14.28 percent. This is the outcome of better policies of the government which ultimately has increased the literacy in area for example free education, compulsory education, scholarship for the poor, free mid-day meal, special motivation for the girl education. Provision of schools in all areas, games and sports, special scholarship for women and backward

classes, increase in basic requirements of educational transport facilities, hostel facilities etc. Generally, there was a magnitudinal change of 56.71 percent during the decade 1981-1991 in the total literacy rate in Chittaurgarh district. There was highest growth of literacy rate in Bhadesar area that is 68.05 percent and the lowest growth of literacy rate was 43.93 percent in Chittaurgarh. The growth rate which increased in Bhadesar, Dungla, Rashmi and Nimbahera was higher as compared to the other part of the district. On the other hand, the literacy rate was quite lower in Chittaurgarh, Gangrar, Kapasan, Badi Sadri, Begun as compared to the above mentioned growth rate of literacy. The total literacy rate changed to 56.84 percent from 1991-2001. Among all the tehsil, the increase in literacy rate was the highest in Bhadesar which is 80.0 percent and the lowest 44.06 percent was in Chittaurgarh. The growth rate which increased in Gangrar, Dungla, Kapasan, and Rashmi was higher as compared to the other parts of district. On the other hand the literacy rate was quite lower in Begun, Nimbahera, Badi Sadri as compared to the above mentioned growth rate of literacy. The total literacy rate changed to 14.28 percent from 2001-2011. There was highest growth of literacy rate in Bhadesar area that is 21.69 percent and the lowest growth of literacy rate was 7.62 percent in Rawatbhata. The growth rate which increased in Bhadesar, Rashmi, Badi Sadri, Dungla, and Gangrar was higher as compared to the other parts of the district. On the other hand the literacy rate was quite lower in Chittaurgarh, Rawatbhata, Kapasan, Nimbahera, Begun, as compared to the above mentioned growth rate of literacy. So there was, however, a negative correlation between literacy level of tehsil and the magnitude of change in it. This intends to say that where the literacy level was high, the magnitude of change was low, where the literacy level was low; the magnitude of change in literacy was high. There are area wise variations in the growth of literacy rate which are kept on decreasing with the time. The change in female literacy rate was more responsible for narrowing down the area wise disparities in the literacy rates.

IV. Conclusion

Chittaurgarh district reached an effective literacy rate of 61.71 percent (76.61 percent for males and 46.53 percent for females) in 2011, the area seems to have attained a respectable place in terms of literacy but the prospects in the area of education is that are-firstly, although in terms of effective literacy (aged 7 & above) the male-female differentials have squeezed down. Secondly, promoting higher education requires opening up higher education institutions, enrolling students and recruiting the faculty. Thirdly, distribution of educated workers in different sectors of economy holds the key to diversification of occupational structure of a society. Fourthly, of recent there had been a growing demand in the area to allow greater access to the private sector in the field of education with a view to achieve its expansion plans as well as to provide competition for improving the quality of education in the area. Various schemes were introduced by the Central and State government through their own support with external assistance time to time, but remained efforts lack of continuity in terms of objectives, contents, mode of implementation and operationalization of schemes. The government efforts for universalization of education and comprehensive literacy drive had yielded positive results. The overall result of the present research has shown that the total literacy has increased over the years. Though the literacy rate has increased in the district yet there are only certain sections of society which have been benefited by this overall increase.

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