Chapter - 2

Review of Literature
CHAPTER 2

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2.1 Introduction

Education is universally accepted as a central component of human capital. Education's positive role in growth and development is beyond doubt and in various literatures, the role of education in the process of economic development has all along been acknowledged in varying forms and content. The early aggregate studies, essentially based on residual approach testified the growth promoting role of education. In view of Schultz, formal schooling should be treated as an investment in human capital that promises a better economic return in terms of higher product per worker, holding physical capital constant.

A vast body of literature on role of education in economic development has clearly shown that countries which have made adequate provision for the elementary education are found to be far ahead of those with inadequate provision for elementary education. Keeping in view the importance of elementary education, government of India made constitutional amendment to provide free and compulsory education to all children up to age of 14 years nearly 66 years ago. But, with nearly 6 decades of independence and 11 cycles of five year planning being completed, we have not succeeded in building mass education system with an even spread across the country and amongst all sections of the society. The goal which was expected to be achieved by 1960 has remained elusive even now.

2.2 Literature Review

A lot of research has already been done across the country dealing with various aspects of elementary education. The present chapter is devoted to review of earlier studies on elementary education in India. For the purpose of simplification the review of literature attempted in this chapter is organized under six main sections.

The first section is devoted to those studies which analysed the role of education in economic development. In this section all the studies which focuses on the role of education and economic development, are reviewed. Second section focuses on the studies on importance of elementary education. In the third section the studies which have analysed progress of elementary education across the states, are
reviewed. In the fourth section all the studies which have discussed the problems related to elementary education such as dropout, problem of basic facilities in school, teacher provision in school and gender disparity at elementary level are reviewed. In the fifth section those studies are reviewed which focused on expenditure pattern on elementary education.

2.3 Education and Economic Development

It is universally recognized that education is a major aspect of human capital and investment in education has a significant impact on social development and subsequently on overall economic development of any economy in general and emerging economies in particular. Thus education in every sense is one of the fundamental factors of development. Without substantial investment in human capital, no country can achieve sustainable economic development. Various research studies conducted in India and worldwide have unanimously shown that rates of return are higher at school level of education as compared to higher level of education.

Schultz (1961) in his monumental work “Education and Economic Growth” estimated the contribution of education to economic growth with the help of the rate of return to human capital vis-à-vis the rate of return to physical capital. He arrived at the conclusion that education alone accounted for 21-40 per cent of increase in the national income growth in the U.S.A., over the period of 1929-1956 and increase in education per member of the employed labour force accounted for 17-33 per cent of income growth over the same period.

Denison (1964) in his study “Measuring the Contribution of Education and the Residual to Economic Growth” subdivided the residual into a number of components and estimated the contribution of each of the components to economic growth in U.S.A., during 1927-57. He also estimated the contribution of education to economic growth for the periods 1909-29, 1929-57 and 1960-80 by using wage differentials by level of education as weights. The contribution made by different component, viz. increased employment, education, capital input, advanced knowledge and economies of scale, to economic growth was 34 per cent, 23 per cent, 15 per cent, 20 per cent and 9 per cent respectively. The contribution of education to economic growth was alone found to be 12 per cent, 23 per cent and 10 per cent respectively during 1909-29, 1929-57 and 1960-80.
Becker (1964) in his pioneering work "Human Capital: A theoretical and Empirical Analysis" suggests that education or training raises the productivity of workers by imparting useful knowledge and skills, hence raising workers' future income by increasing their lifetime earnings. He draws a crucial distinction between general training (skills useful to many employers) and specific training (skills useful to only one employer). This distinction is important if these investments take the form of employer-provided training. While the returns to specific training can be realised only in an ongoing relationship with the training firm, general training increases the productivity of a worker in many firms besides those providing it. Becker's theory separately addresses these phenomena and draws two main conclusions. First, employers will share the returns and the cost of investments in firm-specific skills with their employees. Second, employers will not be willing to invest in general training when labor markets are competitive. However, they are willing to invest in specific training because it cannot be transferred to outside firms.

Mincer (1974) in a study entitled "Schooling, Experience and Earnings" has shown that earning levels are related with human capital investments. This means the more human capital investments on individual makes the higher his or her earnings. He looked at individual earnings as a function of years of education and also other factors such as age and experience. His study revealed that for white males not working on farms, an extra year of education raised the earnings of an individual by about 7 per cent. Further, when allowance was made for this, the return to a year's education increased to 10.1 per cent. The benefits of extra education are obviously different for different individuals and people can be supposed to finish their education at the point at which the anticipated return of extra education is just balanced by the extra costs.

Barro (1991) in his paper entitled "Economic Growth in Cross Section of Countries" brings out empirical results about Growth, Fertility and investment for 98 countries in the period of 1960-1985. Major finding of his study was that the educational attainment of a country's adult population is strongly positively related to that country's subsequent growth rate of per capita Gross Domestic Product (GDP). He found in his study that given the level of initial per capita GDP, the growth rate is substantially positively related to starting amount of human capital. According to Barro, poor countries tend to catch up with rich countries if the poor countries have
high human capital per person. Thus, the rate of catch up depends positively on the number of years of education, reflecting that a high level of education makes it easier to adopt and develop new technologies. Further, countries with high human capital have lower fertility rates and high ratio of physical capital investment to GDP.

Psacharopoulos (1991) in a study entitled ‘The Economic Impact of Education: Lessons for Policymakers’ analysed the rate of returns from education and found that compared with developed countries, returns to education are much higher in developing countries because of scarcity of human capital and barriers to allocation of funds for human capital investment. Psacharopoulos revealed in his study that rate of returns decline with increase in the level of education. Thus, returns are higher to primary education relative to secondary and university education. Another thing that his study revealed is that investment in education of female yields higher rate of return than that in male education. This is despite the facts that male earnings are higher than females. In fact, it is because the opportunity cost of women’s labour is lower and a major component of cost of education is income foregone during the period of study.

Krueger and Lindahl (2001) in their paper entitled “Education for Growth: Why and for whom?” stated that longer a person goes to school, the higher are their earnings. Each additional year of schooling raises earnings by about 10 per cent in the United States, although the rate of return to education varies over time as well as across countries.

Hinushhek and Wobmann (2010) in their paper entitled “Education and Economic Growth” evaluated the role of education in promoting economic growth. According to them education has long been treated as an important determinant of economic wellbeing of masses and it affects economic growth through three mechanism. First, education increases human capital inherent in the labour force which in turn increases labour productivity and as a result of this output increases to higher equilibrium level. Second, education increases the capacity to bring about innovation in the economy and new knowledge and new technologies, product and promotes economic growth. Third, education facilitates the dissemination of knowledge, which is necessary to understand new information and to successfully implement new technologies developed by others, again fosters economic growth. Further, they emphasised on quality education as an important determinant to
economic growth rather than mere school attainment and found that cognitive skills are more positively related to economic growth.

Harbinson and Myers (1964), Boman and Anderson (1968) and many other studied the relationship between education and economic development in different countries (both developed and developing countries) using correlation coefficient method. There was a consensus opinion amongst all of them that there is positive and significant relationship between education and economic development.

Several studies have also been conducted in India to find out the relationship between education and economic development. All these studies, considering the indicators of education and economic development reached at the conclusion that a positive and significant relationship exists between education and economic development.

Ansari (1987) in his study analyzed the relationship between education and economic development with the help of simple correlation method. Using census data of 1961, 1971 and 1981, the author analysed relationship between level of literacy and per capita state domestic product in 13 major states of India. The correlation coefficient for the three point of time under the study, viz. 1961, 1971 and 1981 emerged out to be 0.631, 0.798 and 0.716 respectively. All these coefficients were found to be statistically significant and were true for 13 major states and the study concluded that with the increase in the level of education and training, per capita state domestic product of the states also increases. It was proved that there is positive impact of education and training on the generation of income. Thus, the statistical analysis confirmed that the nexus between literacy and economic development was strong and the pace of economic development could, therefore, be accelerated through improvement in quality of education.

Choudhri (1974) found a link between education and agricultural productivity. He took a sample of 1038 household in 21 villages of Punjab, Haryana and Uttar Pradesh for the year 1961-64 and used double log production function of Cobb-Douglas type. He took value of agricultural production as the dependent variable and education, land, labour, fertilizers, manure and bullocks as independent variables. In the study education was measured by the average years of schooling completed by all agricultural workers in a household and years of schooling
completed by head of the household. The values of coefficient of the two measures of education were 0.116 and 0.114 respectively. The study revealed that there was positive and significant relation between education and agricultural productivity.

**Tilak (1980)** in his work “Contribution of Education to Economic Growth in Andhra Pradesh” estimated the contribution of all level of education to the income of the state of Andhra Pradesh by using growth accounting equation models of both Denison and Schultz. His study uses both secondary as well as primary data, collected through a sample survey in west Godavari district.

Results from modified Denison’s model showed that: (1) education contributed 33% to state income; (2) the contribution of women’s education was as low as 1.5%, while that of men’s was 31.4%; (3) the magnitude of contribution of education in rural areas to state income was at a slightly higher level than that in urban areas; (4) the relative contribution of primary education was higher than that of any other level in all cases, except in urban areas, where the contribution of secondary education was the highest.

Results from Schultz’s model showed that (1) education contributed about 60% of state domestic product in Andhra Pradesh in 1977-1978; (2) the contribution of women’s education was 1.9%, while men’s is 66%; (3) the contribution of urban education was about 6.5 points higher than rural education; (4) the difference in the contribution of education between that of backward castes and non-backward castes was about 67% in favour of non-backward castes; (5) the contribution of primary education was higher than that of any other level in all the cases, except in the case of women and urban populations.

**Tilak (1988)** in his study entitled “Vocational Education and Economic Growth” in a cross country analysis estimated the relationship between education and economic development. He used data of 100 countries for vocational secondary education vis-a-vis general secondary education with the help of semi log regression model. By classifying the countries into low income, middle income and high income countries and using data for 1 year, 10 year and 15 year time lag on enrolment, he found that vocational education contributed positively to economic growth in case of middle income countries. The contribution of vocational education turned out to be negative and statistically insignificant in low and high income countries. The study
concluded that vocational education could contribute positively and significantly to economic growth of those countries which have GNP per capita income more than $400 and less than $5000.

2.4: Importance of Elementary Education

Education is recognised as a central component of all process of development especially human development. Education builds up manpower for different level of the economy and helps in empowerment of poor masses to become self reliant enough to participate in the process of economic development. The literature on education has shown that significant proportion of rate of growth of the economies may be attributed to the rise in the educational level of workforce. There is sufficient evidence in India and the world to show that high literacy rate especially in the case of women, correlates with low birth rates, low infants mortality rates and increase in the rate of life expectancy. The recognition of this fact created awareness on the need to focus upon literacy and elementary education not merely as a matter of social justice but more to promote economic growth, social welfare and social stability.

Bruns et al. (2003) in their study entitled “Achieving Universal Primary Education by 2015: A Chance for Every Child” focused on the importance of education and found that “education particularly primary education is a goal in and of itself, but is also powerful driver of progress towards other MDGs”. According to them, as education increases more equitably, poverty and inequality reduces and this promotes economic growth. Education builds human capabilities which are important for individual to reflect, make choices, seek a voice in the society and enjoy a better life. Further with greater education of girls, health of infants and children, immunization rates, family nutrition and next generation’s schooling attainment are positively affected. Education is essential for the construction of globally competitive economies and democratic societies combined with macroeconomic policies. It is key input for creating, applying and disseminating new ideas and technologies which in turn are vital for sustained economic growth; it increases cognitive and other skills which in turn increases labour productivity. At last they added that all these positive extremities related to education require that a minimum threshold of five or six years of schooling must be attained and ensuring primary school completion and not only primary school access.
Sahu (2007) in his study entitled “Trends and Problems in Indian Education” attempts to show the importance of primary or elementary education and mentioned that J.P. Naik, an eminent educationist of the country has very clearly described the importance of primary education in these words “the progress of primary education is one index of general, social and economic development of the country as a whole”. According to Sahu, it is fundamental education which lays down the foundation of the secondary education and inculcates abilities in such a way which makes human beings socially, economically, culturally and politically more mature. Primary education also helps a lot to foster values of emotional and national integration. It also acts as tool for economic development through developing learning abilities so that the use of available knowledge and skill in new ways becomes possible. He concluded that countries which have emphasised primary education and made adequate provision for it, are far ahead than those countries which did not emphasise primary education. Since majority of population in developing countries have access only to primary education, it is extremely essential to make sufficient investment at this level of education.

Kumar et al. (2009) in a study focused on the importance of elementary education and stated that elementary education is an important ingredient of human development and a factor which enables to make use of economic opportunities. They observed that

- With increasing prospects of elementary education, incidence of child labour reduces;
- It empowers individuals as well as society to stand against all type of oppression prevailing in the society and reduces inequalities not only amongst social groups but also within the family;
- Female education helps in reducing inequalities on gender basis;
- Further, as far as development process is concerned which is visualised in terms of elimination of slavery, elementary education not only accorded top priority but it was also found that absence of elementary education led to violation of fundamental rights.

World Bank (1997) emphasized that benefits accruing from the primary education acted as a takeoff of the rapidly growing economies of East Asia. Primary
education enhances family health, reduces fertility and thus helps reducing population growth. It was found that with increased education workers can take advantage of technological change which in turn raises productivity and their earnings. Increase in laborers' average primary schooling by even one year leads to an increase in output substantially. Further primary education is found to have perpetuated from one generation to the next as educated parents are more likely to send their children to school.

2.5: Progress of Elementary Education across States

There has been phenomenal progress in the expansion of elementary education in India since independence. The overall literacy rate of the country as a whole has improved from 52.11 per cent in 1991 to 65.46 per cent in 2011. Three states namely Kerala (93.91 per cent), Lakshadweep (92.28 per cent) and Mizoram (91.58 per cent) have recorded literacy above 90 per cent in 2011. Although, it has been found that at the state level there has been considerable variation in literacy rates and elementary schooling.

Seetharamu (1988) in his study entitled “Education in Karnataka State -2001 A.D.” analysed the trend of development in primary education in Karnataka and covered the period from 1956-57 to 980-81. His study revealed that though the gross enrolment (I to IV standards) was nearly 90 per cent, still the net enrolment was as low as 65 per cent. The main factors responsible for a low net enrolment ratio were non enrolment of children, late enrolment and dropout amongst children of school going age group. He probed reasons for dropout and found that school dropouts were engaged either in paid work, or unpaid work, at home, in the farm or in some household industry etc. Most of the dropouts, 20 per cent in rural area and 55 per cent in urban areas were engaged in child labour. Further, he estimated that dropout rate would be around 40 per cent at lower primary stage by 2001 and around 2.89 million children would still be out of school by 2001. He found that there existed a large proportion of single teacher school in Karnataka and estimated that there would be a need to recruit an additional 15,000 teachers in the primary schools in the next 15 years and appointment of at least one lady teacher in every primary school for prompting enrolment of girls would be desirable.

progress of education in these two states in a comparative setting covering the period from 1956-57 to 1980-81. He tried to find out that to what extent the goal of equality of educational opportunity has been achieved. The indicators used to examine equality were Enrolment Ratio, Disparity Index and Growth of Enrolment. He found that in Kerala Gross Enrolment Ratio (GER) at the primary stage increased from 99.8 per cent in 1956-57 to 106.0 per cent in 1980-81 while in Uttar Pradesh corresponding figure increased from 35.4 per cent to 69.0 per cent. Thus, the position of Uttar Pradesh is far below than that of Kerala. Further, it was found that disparity between girls’ and boys’ enrolment appeared to be more in Uttar Pradesh than in Kerala. In Kerala the disparity index was almost zero in all type of general education in 1980-81. In Uttar Pradesh disparity index declined from 1.14 to 0.65 at the primary level, and from 1.40 to 0.89 at the middle level during 1956-57 to 1980-81. He found that on the whole, Kerala is far ahead of Uttar Pradesh as far as educational development is concerned.

Sinha (1988) in a study entitled “The State of Primary Education in India” found that

- States with high literacy rates were doing better in primary education and the literacy of parents appears to have a positive correlation with participation of children in primary school.
- Low female literacy states were also states with a very poor performance in primary education (Bihar, Madhya Pradesh, Uttar Pradesh, Rajasthan and Andhra Pradesh.)
- 75 per cent of out of school children in the 6-10 age groups were in Andhra Pradesh, Bihar, Madhya Pradesh, Uttar Pradesh, West Bengal and Rajasthan.

Aggarwal (1988) in his study entitled “Towards Education for All Children: Intent and Reality” examined the interstate variation in educational achievement. He used decadal census data to analyse the extent of coverage of education amongst children. State wise analysis of proportion of children attending school revealed very large variations in the extent of educational coverage. It varied from near universal access in Kerala on the one extreme to Uttar Pradesh, Rajasthan, Madhya Pradesh and Bihar where one third of children in the 6-11 years age group were attending schools. The educational attainment in urban areas was found to be much better as compared to rural areas. It was observed that not only the number of children attending school...
was high in urban areas but the male – female disparities were also low in urban areas. The extent of schooling amongst the rural female was very low. It was found that in the 6-11 age-groups 8 out of every 9 females were not attending school in Rajasthan. The position in Bihar, Uttar Pradesh and Madhya Pradesh was also awful and the proportion of rural females attending school was less than 20 per cent. In terms of the per cent educational achievement Tamil Nadu has only 53.9 per cent schooling of the rural females as compared to Kerala where this figure was 88 per cent. Notably, Tamil Nadu was the only state other than Kerala which was able to cross the threshold of 50 per cent schooling for their rural female population. It was observed that the position of the rural female children attending school in Maharashtra was nearly half of the Kerala. He suggested that to achieve Universal Primary Education, the state of Tamil Nadu and Maharashtra would have to nearly double the access of school-going population in a decade or so.

Singh (2002) in his study entitled “State of Universal Education in India” studied interstate variation in literacy. He found that there was considerable dissimilarity at the state level with respect to the level of literacy. At the 1991 census the states of Andhra Pradesh, Arunachal Pradesh, Rajasthan, Meghalaya and Uttar Pradesh recorded a lower level of literacy than the national average of about 52 per cent. On the other hand state of Goa, Gujarat, Himachal Pradesh, Kerala, Maharashtra, Manipur, Mizoram, Nagaland, Punjab, Sikkim, Tamil Nadu, and Tripura had shown literacy higher than the national average. The state of Rajasthan recorded the fastest pace of improvement in literacy rate. Further, Singh concluded that states with better performance in the field of education or health had incurred higher per capita public expenditure in the past than those characterised by low level of education.

Narayanamoorthy and Kamble (2003) in their study analysed literacy rate amongst scheduled caste population across different states using the data from four census period; 1861, 1971, 1981 and 1991. They used multiple regression models in their study to analyse literacy rate amongst scheduled caste population. The study shows that though the literacy rate of scheduled caste population has significantly increased across the states, it is still much lower than the literacy rate of general population. While the literacy rate of Kerala, Tamil Nadu, Maharashtra and Assam is much higher than the national average, it is awfully low in ‘BIMARU ‘states even in
1991. The growth rate of rural literacy amongst scheduled caste population between 1961 and 1991 was found to be higher than the literacy rate of the same population residing in urban areas in almost all the states. Further, the study revealed that though the literacy gap between female and male has been narrowing down over the years across the states, a significant gap still exists amongst BIMARU states. The regression results suggested that amongst different factors, basic infrastructural facilities (schools and roads) are important determinants in increasing the level of literacy amongst scheduled caste rural population. The economic variables affected negatively on literacy rate of scheduled caste population living in rural areas.

Srivastava (2005) in her study entitled “Review of Elementary Education in India in the Selected States” analysed the expansion in the elementary education in the country and stated that during the past five decades since independence, elementary education has expanded into one of the largest education system in the world. Her study revealed that the states of Andhra Pradesh, Rajasthan and Assam showed better performance during the 1980s than in the 1990s but Uttar Pradesh and Madhya Pradesh showed considerably better progress during 1990s. This progress in Uttar Pradesh was possibly due to the impact of Uttar Pradesh Basic Education Programme (UPBEP) and District Primary Education Project (DPEP). She also found that though Assam was one of the seven states which undertook comprehensive reforms under DPEP, its progress in the field of educational institutional was found to be low. Tamil Nadu an educationally advanced state did not consider expansion of educational institutions as a priority area under DPEP educational reforms. West Bengal and Bihar did not respond well with regard to setting up of additional institutions and came under the ‘special watch’ by centre. In overall terms, though expansion took place in all the states, the situation seemed to be inadequate to meet the target of achieving Universal Elementary Education for all the children in India.

Tilak (2006) in his study “Education: A Saga of Spectacular Achievement and Conspicuous Failures” evaluated progress of literacy and elementary education in India and grouped all states and union territories into three categories: High literacy states (with above 75 per cent literacy), medium literacy states (above the national average but below 75 per cent literacy), and low literacy states (below the national average). He found that only in six states namely Kerala, Mizoram, Goa, Delhi, Maharashtra and Himachal Pradesh, literacy rate was very high (above 75 per cent).
In the rest of the states the rate of literacy ranged between 65 per cent and 75 per cent. He found that all the states where literacy rate was below the national average in 2001 were also at the bottom in 1991. States such as Orissa, Uttar Pradesh, Arunachal Pradesh, Rajasthan and Bihar were found to be at the bottom of 24 states/UTs. These seven states were found to have more than half of the illiterates in the country. Tilak suggested that these states need serious attention.

Govinda (2008) in his study entitled “Literacy and Elementary Education: Regional Imbalances and Social Inequalities” analysed interstate variation in literacy rates in India. He observed that on the one hand there is Kerala where almost every child was attending school and every school was having five teachers and five classrooms. On the other hand there is Bihar where only one out of two children was attending school. Kerala accorded top priority with literacy rate of 90.9 per cent and Bihar was at the bottom with a literacy rate of 47.5 per cent. States and union territories namely Assam, Madhya Pradesh, Meghalaya, Orissa, Andhra Pradesh, Rajasthan, Uttar Pradesh, Dadra, Nagar Haveli, Arunachal Pradesh, Jharkhand, Jammu & Kashmir and Bihar were found to have literacy below the national average. Further, it was found that 60 per cent of illiterate population was concentrated in the states of Andhra Pradesh, Madhya Pradesh, Bihar, Rajasthan, Uttar Pradesh and West Bengal.

2.6 Problems of Elementary Education

(i) Dropout Rate

While examining the current scenario in education it is evident that government intervention across the country during the last 60 years, has led remarkable progress in universalisation of elementary education, which can be seen in the improved provision of schools, rising enrolment, higher attendance in schools and higher literacy levels. Whereas the rising enrolment and high attendance in elementary school is the source of satisfaction, it is matter of great concern as to how many of children are actually attending school and how many of them are dropping out of the system altogether. Though the dropout rates at the elementary stage have come down significantly over the years, considering the stage at which Indian economy is, it is still relatively high especially in the case of girl student.
Pillai and Nair (1980) in their study “A study of Dropout in Primary Education in Kerala” reviewed the magnitude of dropout amongst the children in school going age group and found that percentage of dropouts was higher amongst girls than amongst boys. Besides, the percentage of dropout was higher amongst the children in the age group of 9-11 years. Majority of dropouts were the students belonging to SC, ST, OBC and other communities. The main reasons for dropout were ill health, household cores and poverty. Further, it was also observed that large size of families had exerted a notable pressure on the dropouts, since the rate of dropout was extremely high amongst the children belonging to the family with six or more members. Lack of education amongst parents was also a factor which increased the tendency amongst children to dropout. They further added that a majority of dropouts were the children of casual laborers and nearly a quarter of dropouts were engaged in some occupation and casual labour.

Visaria et al. (1993) in their study entitled “Literacy and Primary Education in India, 1980-81 to 1991: Differentials and Determinants” probed the reasons for non-enrolment and dropout in two states of Gujarat and Maharashtra. They found that lack of interest and economic factors were the two major reasons for the phenomenon of non-enrolment and dropping out in the two states. These reasons were also valid for the country as a whole. In the age group of 10-14, almost 50% of the boys and girls in rural Gujarat who have never been enrolled to schools were found to be not interested in education. The corresponding percentage for urban boys and girls in Gujarat were around 40. However, the lack of interest in education was less frequently reported reason for non-enrolment in rural and urban Maharashtra but the percentage was around 40 and 25 respectively. In addition, pressure to participate in household cores or other economic activity were equally important reasons for dropping out in urban areas of Gujarat.

Mehta (1995) in his book “Education for all in India: Myth & Reality” reviewed the reasons for dropout and found that a large number of children in the year 1986-87 were either not interested in education or further studies. This percentage was as high as (37.9 per cent) in Punjab followed by Tamil Nadu (36.2 per cent), Haryana (33.14 per cent), Andhra Pradesh (30.7 per cent) and Karnataka (29.21 per cent). He also observed that about 33.67 per cent of total dropout in Kerala left the system due to repetitive failures. The corresponding figure was 7.66 per cent in
Rajasthan and 8.20 per cent in Bihar. In most of the states every third children dropped out because of his/her participation in household and other economic activities.

Malgavakar (1995) in a study entitled “Universalisation of Primary Education” found number of reasons for dropping out amongst children from school. His study revealed that child labour was an important factor for dropout amongst children. One out of five dropouts was engaged in paid work in agriculture, farm labour or non-farm (agricultural) work. Non-agricultural work included tending of cattle, assistance in shops and hotels, serving as maids, selling flowers and vegetables etc. Besides, amongst the dropouts 14.5 per cent were engaged in paid agricultural work and 5.6 per cent in non-paid agricultural work. He concluded that five reasons appeared to be significant in minds of parents for withdrawing their children from schools.

(i) Poverty (34.5 per cent);
(ii) Children needed to do household works (23.2 per cent);
(iii) Needed to take of siblings (18.2 per cent);
(iv) Lack of interest towards education amongst the children (15.1 per cent);
(v) Children needed to rear cattle;

Other reasons pointed out were ill health of parents; children needed taking care of house, distance of school from home and children needed to support family financially. All these factors together accounted to 18.9 per cent.

Ruhela (1996) in a study entitled “Universalisation of Elementary Education in India” investigated the reasons for dropout and found that domestic constraint was one of the important reasons for dropping out of children in urban areas. He found that about 52 per cent of urban males and 29 per cent of urban females were denied access to education because of their participation in household chores and other economic activity. Most of young females could not take advantage of educational facilities because they had to perform lots of domestic and household works apart from looking after their siblings. Besides, it was found that one fourth of all dropouts in rural as well as in urban areas accepted that they were not interested in further study.

Aggarwal (2002) in his study entitled “History and Development of Elementary Education in India” has shown concerns over the problem of Dropout and stated that “while the educational system has phenomenally increased its outreach
and coverage at the primary level and enrolment rates have gone up appreciably, the
massive dropout continues to ruin the system”. His study revealed that in India nearly
half the children who get enrolled in class I dropout before reaching class V, and two
third of the children drop out before reaching class VIII. The girls suffered more from
the high incidence of dropout. In 1981-82, the dropout rate amongst girls was 55.5 per
cent as against 47 per cent amongst the boys at the primary stage. At the upper
primary stage dropout rate was 77.70 per cent for girls, the corresponding figure was
68.5 per cent amongst the boys. The reasons for high dropout rate amongst girls were
eyearly marriage, helping parents in household and agricultural work etc.

In a study on “Enrolment, Dropout and Grade Completion of Girl Children in
West Bengal” Sengupta and Guha (2002) concluded that the strongest factor with
regard to school participation, enrolment and dropout of girl child were household
factors such as parental, especially maternal schooling, household income and father’s
occupation. They also found that caste and religion were important determinants of
schooling. Muslim girls, (irrespective of whether lived in rural or urban areas)
received less schooling than other religious communities such as Hindu, Christian and
Sikh. In addition, girl’s involvement in child labour force significantly reduced the
demand for schooling and the level of education obtained.

Vasavi and Mehendale (2003) in their study examined the factors responsible
for dropout. They found that amongst the out of school children a majority (61 per
cent) had dropped out due to dysfunctional schools. The children from the slum area
in Bangalore had the highest percentage of dropout rate (81 per cent) while those
amongst the fishing community in Andhra Pradesh (78 per cent) followed closely.
The dysfunctionality of school was marked in several ways. Many of the government
schools failed to function for the required number of days in remote villages and
hamlets. In addition to this, many schools located in villages that were considered to
be inaccessible, functioned at least 30 per cent less than officially fixed days. Hence,
opting out of school amongst children was not entirely linked to the demand for child
labour or lack of parental interest in sending their children to school, rather the
condition of schools and their functioning were contributing factor.

Rena (2007) in a study pointed that there is an urgent need to change
education pattern in India so as to achieve the goal of Universal Primary Education.
Even after the 60 years of independence, the goal of universal primary education is
yet to be achieved and India faces problems in providing education to all children in the age group of 6-14 years. The author conducted the study in a primary school of Errabelly village of Karimnagar district of Andhra Pradesh. He revealed in his study that children were dropped out from school to assist in household chores and farm activities. The rate of dropout was higher amongst girls than boys. He recommended in his study that government should increase budgetary allocation in the field of primary education so as to increase the participation of children and some financial assistance should also be provided to the students.

In a different study “Poverty and Student Dropout in Orissa” Buragohain (2009) found that poverty and student dropout are like two sides of the same coin and need to be addressed together if the Millennium Development Goals are to be realised by 2015. She carried out a household survey in Orissa for her study. The survey revealed that 93.08 boys and 94.85 girls dropped out from schools in age group of 6-14 years. About 17 per cent amongst boys and an equal percentage of girls reported ‘poverty’ as the reason for dropout from schools. Hence more than one – third of the students dropped out due to poverty. The survey also revealed that 78 per cent of students dropped out from class I and II before learning anything useful. Buragohain used regression analysis in her study which had shown that dropout rate at primary level is directly related to poverty, illiteracy and high percentage of population amongst scheduled caste and scheduled tribe.

(ii) Gender Disparity

Education has made remarkable progress in India since independence due to various effort made by governmental and non governmental agencies. Female literacy has however remained very low particularly in rural areas and gender gap persisted in elementary schooling right since independence. Although the literacy rate for girls continues to improve, girls still had lower enrolment, lower attendance rates as well as higher dropout rates compared to boys. Though the dropout rates are declining over the years, even a small gap means more girls than boys join the group of incomplete primary education.

Pandey (1987) in his study “Post Educational Development among Women in India” analysed gender gap in education in India and found that even after more than three decades of plan development, data on education indicated widening gender gap
in schooling. The number of female illiterates showed a faster rate of increase from 161.9 million in 1951 to 185.2 million in 1961 and from 215.3 million in 1971 to 241.6 million in 1981. He found that during this period the number of male illiterates increased from 137 million to 198 million. The proportion of illiterate women was highest in Rajasthan followed by Bihar, Uttar Pradesh, Madhya Pradesh and Jammu & Kashmir. Except Kerala in all the other states more than 60 per cent of female population were illiterates. At elementary level a wide gap in enrolment of boys and girls was observed. Besides, it was also found that girls’ enrolment was increasing at much slower rate than that of boys. In addition, it was officially admitted that dropout rate amongst girls was also much higher than the boys. The author concluded that poverty and involvement of girls in activities which were necessary for the survival of their families were the reasons for their dropout and low enrolment.

Rani (1993) in her study “Education of Girls in Rural India” focused on the status of education amongst the girls in India. She found that though education has made considerable progress in India since independence, female literacy remained very low particularly amongst rural girls and there was a wide gap between literacy rate of female in rural and urban areas. In the year 1991 female literacy was 25.13 per cent in rural areas whereas for urban areas it was 54.01 per cent. Besides, there was a huge inter-state disparity with respect to female literacy. Kerala recorded highest female literacy rate, 75.36 per cent and Rajasthan recorded the lowest i.e. 16.59 per cent in the year 1991. Further, it was found that there has been substantial increase in enrolment amongst the girls in urban and rural areas, both at primary & upper primary level but the dropout rate tends to be high for girls. Rani mentioned various factors such as socio-cultural, economic and educational which were responsible for low enrolment and dropout amongst girls.

Chanana (1996) in his article entitled “Gender Inequality in Primary Schooling in India: The Human Right Perspective” analysed gender gap in primary education. He found that gender gap in literacy was very high in educationally backward states like Rajasthan (35 per cent male and 4 per cent tribal female). Five states viz. Madhya Pradesh (10.37), Bihar (14.75), Orissa (10.21), Andhra Pradesh (8.68) and Rajasthan (4.42) which had 51.69 per cent of female ST population, were below the national average for the ST female literacy during the 1981-1991. According to Chanana nearly half of the children drop out before completing class V. Gender wise dropout
rate between class I and V was 35.1 per cent for boys and 38.6 per cent for girls. The author argues that though education is fundamental human rights, yet government has not been able to provide education to all girls and bridge the gender gap. He mentioned various reasons which acted as barrier to gender equality. They were discrimination in the implementation of the various schemes, girls’ involvement in economic activity and household chores and less spending of household on girls’ education than boys. The author suggested that a great deal has to be done for the realisation of human right of women in India and since education is the important indicator of status, provision of primary education must be priority for India.

McDougall (2000) in his study entitled “Gender Gap in Literacy in Uttar Pradesh: Question for decentralized Planning” revealed regional variation in female literacy and gender gap. He observed that despite of the benefits linked with female literacy, perceptions of its risk remained. These risks were both social and economic and were based on household decision making processes that calculate cost against benefit. McDougall in his study found fluctuations in female literacy rates and gender gap for each districts in UP during the period 1971-91. Major findings of his study were:

- Seven of the UP’s top ten performing districts in female literacy during 1971-91 were amongst the top ten performer in gender gap as well. Five of those district were in northern hill region-Almora, Chamoli, Nainital, Dehradun and Pithoragarh (now in Uttaranchal) while the other two were Lucknow and Etawa.

- The worst literacy performers were grouped along the Nepalese border, they were Behraich, Badaun and Rampur.

- The worse gender gap performers were clustered on the Bihar border, in far eastern UP. They were Etah (-12 points), Ghazipur (-11.7) and Pratapgarh (10.4 points).

He suggested that for reducing gender disparity, it will be more effective to focus on the female retention rather than on access. This can be done though increasing female teachers, by creating gender positive curricula and devoting specific attention to girls in the classrooms.

Aggarwal (2002) in his book entitled “History and Development of Elementary Education in India” examined the gender gap in literacy. He revealed in
his study that while the Gross Enrolment Ratio (GER) at the primary stage in the
country as a whole and in most of the states exceeded 100 per cent, there were few
states where this ratio was considerably lower. These states included Uttar Pradesh,
Bihar, Rajasthan, Haryana, Jammu and Kashmir and Meghalaya. Most of these states
had literacy rates lower than the national average. Further, gender disparity was very
significant indicator with regard to enrolment and retention. Aggarwal observed that
girls’ enrolment grew at the primary level from 5.4 million in 1950-51 to 46.4 million
in 1993-94 and at the upper primary level from 0.5 million to 15.7 million. It was-
found that growth rate of girls’ enrolment was higher as compared to boys but
disparities still persisted, girls still accounted for only 45.7 per cent of the enrolment
at the primary level and 37.73 per cent at the upper primary level. Dropout rate was
also higher amongst the girls than those of boys both at primary and upper primary
stage.

Dreze and Sen (2002) in their study stated that low value attached to female
education in much of India is linked with some deep rooted features of gender
relations. They mentioned three broadly observed links:

First, the gender division of labour (combined with patrilineal property rights)
which tends to reduce the perceived advantages of female education. A huge majority
of girls are expected to spend most of their adult life in domestic work and child
rearing.

Second, the norm of patrilocal exogamy (requiring a woman to settle in her
husband’s village at a time of marriage) prevalent in large part of India further
undermine the economic incentives which parents might have to send their daughter
to school.

Third, the practice of dowry and the ideology of hypergamous marriage
which is dominant in large part of India can turn female education into a liability. In
communities where male education is low, parents are often worried about educating
their daughter for fear of being unable to find a suitably educated groom.

Nambisan (2004) while analysing the status of girl education in India points
out that girls are at disadvantage in comparison with boys, not merely in relation to
their chances of school entry and retention but in the kind of academic environment
provided by home as well. For instance, boys tend to have an advantage over their
female siblings in terms of resources invested in their education, time made available for studies within the home, academic support (such as tuition or private coaching) and other education experiences provided to them. Though girls' education is steadily becoming more of a social norm, it is still heavily prejudiced by considerations of marriage and 'status production' rather than the need for economic security for the individual or her family. Thus, when girls are 'ready for marriage' and social taboos to their mobility set in, or there is need for extra hands within the home, or finances do not permit, it is girls who are more likely to be pulled out of schools than boys.

Singhal (2008) in his paper “Attitude towards Girls’ Education among Disadvantaged Communities” probed the barriers in enrolment of girls. These barriers were poverty, attitude of parents, early marriage and dowry of educated girls, migration of parents, teachers’ behaviour, lack of female teacher, lack of infrastructure and child labour.

He has given several suggestions for improvement in enrolment and retention of girl child in school. They are:

- The commitment of teachers and quality of education and good infrastructure like toilets for girls;
- Scholarship to the poor school going children in addition to the provision of all the free facilities in the schools;
- Appointment of sufficient number of female teachers and
- Massive employment opportunities in the farm and non-farm sectors should be created in the village itself by increasing infrastructural facilities to restrain poverty and migration which was the main reason for dropout and non-enrolment.

(iii) Basic Facilities

Physical facilities play a very significant role in educational development. No institution can be established without having proper physical infrastructure like building and open ground which is imperative for opening any school or institution. Hence while preparing educational plan basic facilities in terms of physical infrastructure and facilities which are essential to open any educational institution, may not be overlooked.
A study on Andhra Pradesh state conducted by NEIPA in 1979 revealed that 80 per cent of the primary schools in the two selected districts of Andhra Pradesh lacked proper building. Study found that almost all schools had no proper equipment, furniture (benches & chairs) and teaching materials. Educational achievement of children in general was found to be very strongly influenced by the incentives schemes. It was reported that incentives provided by the government was not sufficient. The incentives to SC/ST students and girls were provided only at the end of the year which failed to raise enrolment and attendance rate of the children.

In another study conducted by NIEPA in 1979 on Bihar revealed that most of the single teacher and double teacher primary schools in Bihar had no building. Where there were buildings, they were in dilapidated condition and required urgent repairs. As far as stipend was concerned the welfare department paid stipend to the students who belonged to scheduled castes and scheduled tribes. But it was found in the study that needy candidate did not get the stipend. School uniforms were supplied only to girl student. However, it was found that incentives like free textbooks was provided to the students of class I and II and about 37 lakh children benefited under this scheme.

In a different study conducted by NIEPA in 1979 in Orissa showed that many of the primary schools in Orissa were not adequately equipped with proper physical facilities. Around 50 per cent of schools did not have adequate buildings. Amongst the surveyed school, two were functioning in the open area. The conditions of many primary schools were found far from satisfactory. Some of these schools buildings were facing problem of leakage during rainy season. Many of the lower and upper -primary schools did not have chairs even for the teachers and they used to sit on the bare floor along with the students. Almost all the sample schools lacked teaching aids. In the name of teaching aids only textbooks were provided to the children. In addition to this, it was found that five schools of the sample were single teacher schools and all of them were managed by the education department.

Fourth All India Educational Survey conducted by NCERT in 1978 found that even in the second half of seventies many primary schools in India did not have basic facilities. The survey found that about 9 per cent primary schools were not having proper building. In Punjab (20.8 per cent), Bihar (18.5 per cent), Uttar Pradesh (16.5 per cent) and Orissa (12.6 per cent) schools were without building. The survey
revealed that only 58.5 per cent of primary schools had blackboard and only 19.42 per cent of primary schools had furniture and maps. Further, it was revealed that 46.54 per cent of schools had playground facility. Games and sports material were available in only 15.42 per cent of schools. Drinking water facility was available in only 40.50 per cent of schools and toilet facility was available in only 14.81 per cent of primary schools.

In yet another study on "Primary Schooling in North India" Sinha (1998) emphasised on the basic facilities available in the primary schools of Rajasthan, Madhya Pradesh, Uttar Pradesh and Bihar. His study revealed that only 9 per cent of surveyed schools had benches and chairs, 59 per cent of the schools were having drinking water facilities and 13 per cent were found to have toilets. Further, only 16 per cent of them were having teaching materials and 36 per cent of schools had got playground in them. As far as school building was concerned, 66 per cent of schools were reported to have pucca building, 18 per cent were having kuccha building and 13 per cent were having a dilapidated building. In addition to this, 3 per cent of surveyed schools were found to have no building at all. In some of the schools these buildings were of good quality and in some of the schools these buildings had problem of leakage in the rainy season. It was observed that all the dilapidated buildings were in Bihar which indicates the poor infrastructure facility due to shortage of resources.

Jha et al. (2008) in their study focused on the basic facilities available in the schools of four states namely Andhra Pradesh, Bihar, Gujarat and Rajasthan. In their study they found that availability of drinking water facility was major problem in primary school of Andhra Pradesh. Around 49 per cent of primary schools of Andhra Pradesh were without any drinking water facility. As far as Bihar is concerned, 79 per cent of primary schools were found to have some kind of drinking water facility. They further added that in all the four states many primary schools did not have toilets. In Andhra Pradesh 27.23 per cent schools were having common toilets for both boys and girls and 57 per cent of primary schools did not have any toilets. In Bihar around 84 per cent of primary schools were having toilets and 3.5 per cent schools were having separate toilets for girls. In Rajasthan 51 per cent and in Gujarat 55 per cent primary schools did not have toilet facilities for students.

However, as far as basic facilities in schools are concerned, the situation has changed drastically in recent year. According to State report Cards, DISE (2009-
10) in Bihar 91 per cent of primary schools and 90 per cent of elementary schools (primary with upper primary schools) has drinking water facility in 2009-10. However, in case of functional toilets condition has not improved much. For example, only 34.3 per cent of primary schools in Bihar were having toilets and only 15.3 per cent of schools had separate toilets for girls. In Madhya Pradesh, 98 per cent of elementary schools had drinking water facility, 51 per cent of primary schools had common toilets and 27 per cent of primary schools had separate toilets for girls. In Rajasthan 94 per cent of schools were having drinking water facility and 34 per cent of schools had common toilets and more than 79 per cent primary schools had separate toilets.

(iv) Provision of Teacher

A school without a teacher is not a school and school with inadequate number of teachers will not serve the purpose meaningfully. Unfortunately, there are large numbers of schools particularly in rural India with insufficient number of teachers. Though the percentage of single teacher schools has been declining in the country, in some of the states such schools continue to be alarmingly large and it adversely affects educational standards and learning outcome amongst the learners.

**World Bank (1997)** revealed that the Student Teacher Ratio increased from about 45:1 in 1986 to 49:1 in 1993. To bring the Student Teacher Ratio to the national average of 40:1, 4,60,000 additional teachers will have to be appointed and to enroll the entire age group of 6-10 year of children, more than 6.2 million teachers will have to be appointed. According to World Bank high Student Teacher Ratio (49:1) creates problem in introducing more effective teaching and makes learning strategies difficult by placing undue pressure on teachers. The report observed that in 1993 Student Teacher Ratio ranged from a low of 38:1 in Assam and 40:1 in Orissa to more than 60:1 in Bihar, Karnataka and Tamil Nadu and 79:1 in Rajasthan. Although under the provision of Operation Blackboard, many single teacher schools were eliminated, more than half of the primary schools were found to have fewer teacher than grade.

**Mehrotra and Srivastava (2005)** in a study entitled “Review of Elementary Education” investigated prevalence of single teacher school in India. They found that the proportion of single teacher school is low but the problem has not been entirely eliminated from both rural and urban areas. In rural areas of Madhya Pradesh, Bihar...
and Uttar Pradesh and urban areas of Rajasthan, there were relatively larger proportions of single teacher primary schools. Although several Centrally Sponsored Schemes (CSSs) and education reform have been initiated by government of India, yet this problem has not been entirely eliminated. They stated that the problem of single teacher school and Pupil Teacher Ratio (PTR) both at primary and upper-primary level acted as de-motivating factor for parents in sending their children to schools. This also posed serious threat to quality of teaching and learning achievement of children particularly in the institutions where majority of teachers are untrained and had to deal with multi grade classes.

In another study "Education: A Saga of Spectacular, Achievement and Failure" **Tilak (2006)** examined the efforts of states to improve school environment and pointed out that provision of teacher is an important component for improvement in school environment. He found that the government's plan and policies for the provision of adequate number of teachers to all schools did not work well and there were large number of schools in rural India where numbers of teachers were not adequate. He found that though the total numbers of single teacher schools declined between 1986 and 1993, single teacher school still existed in sizable number in 1993. These schools constituted 22 per cent of total number of schools. Apart from single teacher schools more than 4000 primary schools in rural areas were without teacher in 1993. Government of India launched Operation Blackboard Programme in 1987 with the objective of converting all the single teacher primary schools into two teacher schools. However, the situation did not change much even after many decades. According to NCERT Report 2005, there were 8000 primary schools (1.3 per cent) without teachers and 1.1 lakh (16.4 per cent) single teacher schools in India.

**Govinda (2008)** studied inequalities in teacher's provision across different states. He found that states suffer from two problems. First is related to Pupil Teacher Ratio and second problem is related to non availability of reasonable number of teacher in schools. It was observed that Pupil Teacher Ratio is far above the national average norm of 1:42. In this context four states namely, Bihar, Jharkhand, West Bengal and Uttar Pradesh needed immediate action. In these states teachers not only dealt with crowded classes but also involved in multi grade teaching. It was also found that there was only one teacher in primary schools both in rural and urban area. But majority of single teacher schools were found in rural areas. Single teacher rural
primary school ranged from 0.63 per cent in Kerala and 32.75 per cent in Jharkhand. In Jharkhand, urban areas were also found to have largest number of single teacher primary schools. The states like Chhattisgarh, Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Punjab and Uttarakhal were found to have 15 per cent single teacher primary schools in rural areas.

**Sharma and Ramachandran (2009)** in their study “State Education Policy and Institution” studied school facility and teacher provision in two states of Rajasthan and Andhra Pradesh and found that percentage of single teacher primary school in Rajasthan was 38.6 per cent which was much higher than in Andhra Pradesh, where this percentage was 15.7 per cent. As far as single classroom school is concerned, this trend was opposite. In Andhra Pradesh percentage of single classroom school was 34.3 per cent and in Rajasthan corresponding figure was 4.4 per cent. But the number of single teacher school at the upper primary level was found to be small. Andhra Pradesh reported to have 0.7 per cent single teacher primary school at upper primary level and in Rajasthan percentage of single teacher school at upper primary level was 1.3 per cent. Both the states were found to have good Pupil Teacher Ratio. For primary school Pupil Teacher Ratio was 32 and for upper primary school this ratio was 31. In Rajasthan Pupil Teacher Ratio at primary school was 38 and at upper primary school it was 32.

**(v) Quality of Elementary Education - Learning Achievement**

In recent times much has been talked about quality issues with regard to elementary education. Most of the developing countries presently lack the capacity to monitor quality of learning in primary schools. Sending a child to school is of little gain if the child does not learn something useful there. Studies by the National Council of Educational Research and Training, the National Institute of Educational Planning and Administration and several others Indian Institution has shown that learning achievement in Indian children is very low.

**Jangira (1993)** in a study entitled “Quality Primary Education for Rural Areas” advocated that in modern society education is as essential as the need of food, clothing and shelter. It is one of the vital ingredients of quality of life. Actual contribution to quality of life, in turn depends on the quality of education itself. The quality of education implies that each child learns and achieve according to his or her potential. Jangira classified various indicators of quality of education such as access,
enrolment and retention, learning achievement, learning environment (school context), learning environment (classroom context) and learning teaching process. He suggested various steps to improve quality of education such as decentralised planning and management, community action and parents partnership in education, school based quality improvement initiative and improving the early stimulation and pre-school education etc.

Prakash (1993) in his study entitled “Towards Enhancing Quality of Primary Education: Minimum Level of Learning Approach” revealed that Universalisation of Elementary Education (UEE) has accorded the top priority amongst the government’s programs for over four decades. Three thing were needed for the realisation of this goal namely, universal access, universal participation and universal achievement. Universal access refers to making school available to a large section of children, universal participation means enrolment and retention and universal achievement means achieving satisfactory quality of education. It was found that there has been substantial rise in enrolment of children in the schools and number of schools expanded tremendously in the country. However, retention of children still remained a serious problem. Another important aspect was universal achievement amongst the children. Performance of the children not only reflects low level of achievement but also achievement gaps.

He suggested that in this context what is more important is that standards of learning (quality) should be laid down which must be ensured to be achieved by all the children (Equity). It is against this backdrop that NPE 1986 also gave away a clear policy direction for laying down “Minimum Level of Learning” for each stage of school education in order to ensure quality education for all children.

A study entitled “History and development of elementary education in India” carried out by Aggarwal (2002) focused on the learning achievement of children in India and found that learning achievement of children in primary education is very low. Studies carried out by NCERT and few empirical studies has shown that learning achievement of a child differ according to his background. It was also found that learning achievement of a child also varies across states. It was observed that children reaching in the final year of primary school have been able to acquire knowledge less than half of the curriculum taught to them a year before. The analysis found that 70 per cent of grade four students in urban zone schools from Madhya Pradesh have not
mastered competencies in Hindi and Mathematics which was expected from grade two students.

In another study entitled "Community Pressure for Higher Quality of Education, Rural Primary School in Karnataka" Mythili (2002) stresses on the higher quality of education in primary schools. He suggested in his study that for achieving a higher quality of education at primary level in rural areas, in addition to providing physical infrastructure and teachers, community participation is equally important. In Tirthahalli, a high literacy taluk in Shimoga, Karnataka, he found that community provided not merely physical and human facilities but also exerted pressure on the teachers to achieve higher quality of education.

Srivastava (2005) in her study examined quality of elementary education and found that "evidence on quality of primary schooling indicates extremely low level of learning achievement for children" despite a number of reforms initiated to improve teaching learning process.

Main findings of the study:

• The analysis of student performance results showed that they were not very encouraging especially those at the end of the three or four years of primary schooling;

• While the average performance of the students in all grades improved in majority of districts of selected states, the overall performance of the students was not satisfactory particularly at the higher level of primary schooling;

• Rural-urban differences in student achievement level were also found to be very high.

The overall performance levels were not very encouraging even if the districts in some of the selected states exhibited considerable improvement.

ASER (2010) highlights very poor state of learning achievement of students in India. It shows that at all India level only 53.4 per cent of students in class fifth could read standard II text and remaining 47 per cent could not read the text. Only 34.4 per cent of students were able to subtract, 35.9 per cent were able to perform simple division, and 64 per cent of children were not able to perform simple division that should have been mastered by grade 2 in the Indian curriculum. In class VIII 82.9 per
cent of students could read standard II text and only 21 per cent of them could perform simple subtraction. Another 67.4 per cent could do simple division and 32.6 per cent could not, that children in class II are expected to solve.

2.7 Expenditure Pattern in Elementary Education

It is widely accepted that there is acute shortage of funds on education sector in India. Many estimates have been made on the resource requirements for education system. Long ago in 1966, Kothari Commission (1964-66) had recommended that 6 per cent of GDP must be spent on education. But this goal remained elusive. In this section an attempt has been made to review some of the studies that focused on the trend of expenditure pattern on education and particularly elementary education.

Tilak (1996) in an article “How Free is Free Primary Education in India” investigated that in spite of the government’s efforts to provide free primary education, households had to spend large amount of money on their children to acquire primary education. He found that even in government primary schools student had to pay examination fee, tuition fee and other fees. Government provided several financial and material incentives to students of primary schools, but it has been probed by Tilak that only a small fraction of students were getting benefit from these incentives. He further added that the term ‘free’ in free education was treated differently by different policy makers depending upon socio economic circumstances. Free education should be treated as one hundred per cent financing of primary education and there should be little dependence on financial and material support from non-governmental organisations. But it was observed that in several countries by free education it was meant only fee free education. Thus, as far as concept of free education is concerned, there was somewhat contradictory perception attached to it.

In an another article “Investment Gap in Primary Education: A State wise Study” Ramachandran et al. (1997) revealed investment gap in primary education and advocated that there is need to provide investment on substantial scale, if the goal of Universal Primary Education is to be achieved. They concluded that:

- Public expenditure on education grew positively over the last 40 years: between 1950-51 and 1989-90, and expenditure per student grew at 1.9 per cent per annum in real terms.
• As compared to other developed and developing countries, this expenditure on education was found to be grossly inadequate and was also very low both in absolute terms and as a proportion of GDP.

• India's rank was 68th out of 89 countries in terms of the share of education in public expenditure.

They further stated in their study that recognising the need for public investment to achieve the goal of UEE, the NPE (1986) suggested that public expenditure on education should be raised to 6 per cent of GNP during eighth plan. However, it was found that share of elementary education was not mentioned specifically. Through this study they emphasised the need to raise investment on elementary education and suggested that around 3 per cent of GDP need to be allocated to elementary education.

Tilak (1997) in an article advocated the need for strengthening the resource base for education in India and said that financial pattern of education in any economy can be judged in terms of equity, adequacy and efficiency. Judging India's performance on the basis of above mentioned three grounds, he observed that its performance was a blend of remarkable achievement on the one hand and prominent failures on the other. He divided plan period into four phases depending upon the pattern of intra-sectoral allocation of the resources to education. (1) In Phase I 1951-56 (the 1st five year plan period) nearly three fifth of total educational resources was being allocated to elementary education. (2) Phase II 1956-69 (the period covering the 2nd and the 3rd five year plan) marked a drastic decline of resources allocated to elementary education. (3) In Phase III the post 1968 policy period) 1969-1986 the proportion of elementary education showed an increasing trend. (4) Phase IV, the post 1986 policy period marked a beginning of renewed emphasis on elementary education with the formation of NPE (National Policy on Education, 1986).

World Bank (1997) revealed that total expenditure of the government on education was relatively low in India. In the year 1994-95, expenditure by the central and state government was 3.5 per cent of GDP which was higher than in the previous two years, but was less than the peak of 3.8 per cent in 1989-90. It was found that though the share of total recurrent budgetary resources provided to education varied from 11.8 per cent in 1986-87 to 13.4 per cent in 1994-95, it was below the average of 17.5 per cent for all low income countries. It was further observed in the study that
state government’s expenditure on education varied over time. In 1992-93 state education spending ranged from 3.0 to 7.5 per cent of state domestic product in the major states. As far as expenditure on elementary education is concerned, as share of GDP it rose from 1.47 per cent in 1985-86 to 1.68 per cent 1989-90, further fell to 1.51 per cent in 1992-93 and again rose to 1.60 per cent in 1993-94. Finally the Report concluded that the composition of expenditure in elementary education was unbalanced.

Rangarajan (1999) in his study entitled “Dimensions of Primary Education” stated that there is need of additional expenditure to achieve the goal of Universal Elementary Education (UEE) in the country. He estimated that for the country as a whole, the additional expenditure on primary and upper primary education would have to be Rs 3,500 crore in 1999-2000 and Rs 28,820 crore in 2007-2008. It means an additional expenditure will have to increase from 0.24 per cent of GNP in 1999-2000 to 1.32 per cent of GNP in 2007-2008. He mentioned that in 1986-87, the total expenditure on elementary education was 1.68 per cent of GNP. So, for achieving the goal of UEE over the next 10 years, expenditure must increase on an average of 0.7 per cent of GNP additionally per annum. Further, he revealed that currently over 95 per cent of revenue expenditure on elementary education is being incurred on teacher’s costs (salaries of teachers). Expenditure on those items which are essential for improving the quality of education is quite minimal. He suggested that this situation must be changed.

Pradhan and Singh (2000) in their study analysed the public expenditure on education and outcome in the states. They tried to see the link between the rate of growth of expenditure and change in educational outcome with the help of correlation method. They took four indicators namely enrolment ratio and dropout ratio for educational achievement and pupil teacher ratio along with the number of schools per 100 sq. km, for the level and quality of education for the year 1996. On the expenditure side they took average per student expenditure on elementary education from 1985-86 to 1993-94. However they did not find a very high correlation between educational outcome indicators and per child public expenditure. This is because there are several other factors (like interest related factors) which also affect the enrollment of student in schools. Thus, merely public expenditure on education does not explain differences across states in educational attainment. They suggested that there is a need
to look at the demand side factors that affect enrolment of children in the school. Thus, public expenditure has to be directed towards inducing the demand for elementary education such as education-based welfare programmes like Mid-day meals and improvement in the quality of schools may be demand-inducing.

Tilak (2002) in a study focused on the expenditure incurred on education and found that there is good reliable data available on public expenditure but data on household expenditure on education is very limited. He examined in his paper the extent of household expenditure on education by different groups, elasticity of household expenditure on education to changes in both household income and government expenditure on education and determinants of family expenditure on education. His study revealed that there is absence of ‘free’ education in India and household spends very large proportion of their income on education. Households spend substantial amounts on books, uniforms, fees and other examination fees even in the government primary and upper primary schools. Further it was found that government expenditure and household expenditure are not substitutes rather they are complementary and an increase in government spending household spending also increases on education. As far as determinants of household expenditure were concerned, Tilak found that income levels, occupation types, and education level of the head of the household, all of them were important factors.

Debi (2001) in a paper entitled “Financing of Elementary Education, Reviewing the Experiences of Orissa” analysed the expenditure pattern on education in the state. She found that financing of education in the state has been a recurring problem since independence. The financial position of the state has been affected by rapid growth of population, perpetuation of poverty, illiteracy, unemployment and many such problems along with frequent occurrence of natural calamities.

Main findings of the study:

- There was a gap between budgetary allocation and actual expenditure on elementary education over the years;
- The real expenditure on elementary education was much below than the expenditure at current prices and the share of expenditure to NSDP was also very negligible;
- The real per capita expenditure on elementary education in most of the backward districts of Orissa was found to be higher than the advanced districts and average share of elementary education was much lower than higher level of education in the state;
- There is steady decline of expenditure on elementary education from the First five year plan to the Eight plan;
- The household expenditure on elementary education revealed that financial burden of elementary education on the individual was very high.

Tilak (2004) in an article entitled “Education in the UPA Government Common Minimum Programme” critically examined the government’s promise to spend 6 per cent of GDP on education. Government of India made a promise that it will spend 6 per cent of its GDP on education by 1986. This goal was first set down in National Policy on Education 1986 and was revised in 1986-92 National Policy Statements. Even after the 60 years of independence this promise continued to remain elusive. Tilak revealed that proportion spent on education increased from 0.6 per cent in 1951-52 to about 4 per cent of GDP in 2001-02. According to Human Development Report (2004), India ranks at number 78 in terms of share of public expenditure on education in GNP, out of 137 countries. It was found that a large number of countries spend more than 6 per cent and some more than 8 per cent. Few countries were found to spend more than 10 per cent of their GNP on education. Some of the economically poorer countries than the India were found to spend more than 4 per cent of their GNP on education.

Srivastava (2005) studied the public expenditure on education across the states during 1996-97. In order to find out inter-states variations in public spending on education particularly elementary education, he divided states into three groups: high, medium and low educational performers. According to this categorisation:

- Low performer states included, Bihar, Rajasthan, Uttar Pradesh, Madhya Pradesh and Andhra Pradesh;
- Medium performer included Orissa, Assam, Haryana, Karnataka, West Bengal and;
- High performer states were Punjab, Gujarat, Tamil Nadu, Himachal Pradesh and Kerala.
It was found that educationally advanced states allocated 2.9 per cent of state’s revenue expenditure on education. Medium performer states devoted 3.3 per cent on education. With regard to elementary education, educationally poor states allocated relatively high proportion of state income to elementary education compared with 1.6 per cent and 1.3 per cent devoted by medium and high performer states respectively.

Rani (2006) in a study critically examined the financing aspect of centrally sponsored scheme namely Sarva Shiksha Abhiyan (SSA). She found that at the implementation level, there were large number of gaps between the approved outlay and the actual amount released from the centre to states. Further, it was observed that on the one hand there was lack of resources for education and on the other hand, states were not able to utilize the available resources properly. She mentioned several reasons for this under utilization of resources by the states, such as administrative hurdles, delayed release of grants, procedural delays and inadequate provision in the budget. Sometimes states used to get resources by the end of year. In this case they were hardly left with any time to utilize the money. She concluded that there is need to strengthen the administration and absorptive capacity of the states, so that they could effectively utilize the resources.

Tilak (2006) in a paper entitled “Trend in Public Expenditure on Education: A Contrast between the Two States, Andhra Pradesh & Rajasthan” focused on the importance of expenditure on education particularly elementary education. He made a comparative study of Rajasthan and Andhra Pradesh in terms of public expenditure on education. Tilak revealed in his study that Rajasthan and Andhra Pradesh, both were educationally backward states. It was found that Rajasthan which was much behind with Andhra Pradesh in educational indicators had been able to come ahead of Andhra Pradesh. Rajasthan improved its literacy by 22 percentage points between the period of 1991 and 2001 which was equal to the rate of literacy in Andhra Pradesh and as far as male literacy was concerned Rajasthan had gone ahead of national average. All this happened on account of improvement in public expenditure on education in Rajasthan as compared to Andhra Pradesh. It was found that Andhra Pradesh was spending higher amounts from beginning of 1980s until 1990-91, but after 1993-94 relative position was changed. By 2000-01, Rajasthan was reported to spend 40 per cent higher than what Andhra Pradesh used to spend. He further added that economic reform policies were found to be impacted adversely on public
expenditure on education in both the states which affected Andhra Pradesh more severely than Rajasthan.

Srivastava (2006) in his study entitled “The Impasse Broken: Mapping Change in Elementary Education in Uttar Pradesh” studied the public expenditure in Uttar Pradesh during the period from 1975-76 to 2001-02. He found in his study that as far as share of total education and elementary education in state budget and state income is concerned, U.P. ranked close to all India average. But in terms of per capita expenditure on elementary education and total education, rank of U.P. was very low (15th out of 16th states). It was found that real education expenditure in U.P. registered a decline between 1991-92 and 1995-96. Thereafter an increase (a rate of less than one) was observed during 1996-97. The share of elementary education and total education in the state budget were found to have fluctuated around 10 and 20 per cent respectively. The share of elementary and total expenditure was at a peak in the beginning of the period (1975-76) with 14.2 per cent 24.9 per cent respectively. It touched another peak in 1980-90 with 13.2 per cent and 24.0 per cent for elementary education and total education respectively. Thereafter, the shares have registered a fluctuation between 10 to 11 per cent and 20 to 21 per cent respectively for most of the years. Thus he concluded that as far as expenditure on education is concerned, during the whole period no systematic trend in the expenditure was found in the state budget.

Karan and Pushpendra (2006) in their paper analysed the expenditure pattern on education in Bihar. They found in the study that proportion of total revenue expenditure on education has shown more or less declining trend with minor fluctuations in the state. This proportion has declined from 26 per cent in 1990-91 to 22 per cent in 1999-00. Similarly share of elementary education declined from 17 per cent in 1990-91 to 14 per cent in 1998-99. Expenditure on general education as proportion of NSDP did not show much fluctuation and had been in the range of 5 to 6 per cent. However for elementary education the share showed a marginal increase of less than 1 per cent. This means that during the 1990s the growth rate of NSDP and expenditure on general education and elementary education has remained the same. As far as per capita expenditure is concerned, in the year 1990-91 the real per capita expenditure was Rs 148 and Rs 97 for general education and elementary education respectively which decline to Rs 121 and Rs 80 respectively in 1998-99. The plan
expenditure in the states was much lower in comparison with other state. Plan expenditure on elementary education accounted only negligible amount in total revenue expenditure and more than 95 per cent of total revenue expenditure was non-plan expenditure.

Tilak (2002) in a study entitled “Financing Elementary education in India” stated that it is not necessarily true that a state or nation invests more (or less) in education than others because it is economically rich (or poor). For instance, a state like Bihar which is economically a poor state invested as much as 6.3 per cent of its income on education in 1995-96 and Punjab which has the highest per capita income amongst Indian states invests 2.1 per cent and Haryana which is another economically rich state invested 2.3 per cent on education. Even states such as Rajasthan, Jammu & Kashmir, Assam, Andhra Pradesh and Orissa whose per capita income is about half or less than half of Punjab, allocated higher proportion of their incomes on education than did Punjab.

Tilak argued that the level economic of development is not an important determinant of public expenditure on education. It is therefore, necessary to analyse the determinants of expenditure on education in detail.

De and Endow (2008) in a study ranked seven states (Haryana, Kerala, HP, Meghalaya, Rajasthan, MP and Orissa) according to their per capita NSDP and per capita education expenditure and arrived at somewhat similar conclusion. It was revealed in the study that the two variables did not always move in same direction. For example Haryana, in spite of high per capita NSDP, gives a low priority to education, in contrast to Himachal Pradesh. Although Rajasthan is a low-income state, its per capita education expenditure has increasingly exceeded that of Madhya Pradesh (another low-income state with comparable per capita NSDP levels) over the fifteen years under consideration. While Orissa is the poorest amongst the seven states in terms of PCNSDP, its education expenditure per head is not the lowest. While the low income states possibly do not have much scope to increase their expenditure on education easily, the deviation in priority in Haryana and Himachal is probably due to divergence in state education policies.

Hence, it is not necessary that a state or nation invests more (or less) in education than others because it is economically rich (or poor).
In another paper "Access to Elementary Education in India: Country Analytical Review" Govinda and Bandhopadhyay (2008) analysed the financing trend in elementary education and found that India is not investing adequate financial resources to provide quality education to all the pupils. Though all the successive government in India promised to spend 6 per cent of the GDP (a target which was first fixed by Education Commission 1966 and was reiterated in the National Policy on Education in 1986 and 1992) so that the education particularly elementary education would not have to face any resource crunch. It spite of this it was found that investment on education has been declining consistently. During 1990-91 (as Eight five year plan unfolded) only 3.9 per cent of GNP was being invested in education and this figure came down to only 3.7 per cent of GNP during 1997-2000 (Ninth five year plan). Though education was made a part of UPA’s government Minimum Programme and government made a promise to spend 6 per cent of GNP on education, still this promise has remained an elusive goal and yet to be achieved.

Jha et al (2008) in their study entitled” Public Provisioning of Elementary Education in India” studied expenditure pattern on elementary education in India and in other countries. They cited some international evidences as far as expenditure on education is concerned. They observed that United Kingdom, France, Japan and United States of America laid down foundation of public education system in the 19th century and primary education was made universal by the end of the century by these counties. United Kingdom initiated its programme of universalisation of primary education in 1944 through states sponsored schemes under ‘Butler Act’ for mass education. Japan also adopted similar path during the Meija era (1868-1911) and laid down foundation of formal education in Japan. Authors pointed out that public provisioning of education has very important role. For example- France, USA and Netherlands were spending around 6 per cent of their GDP on education during 1979-2000. High income countries were found to spend US$ 300 to700 per capita on education annually in 2001. Middle income countries were spending about US$ 100 to US$ 250 in the same period. In the low income countries per capita expenditure on primary education was very small and in case of India, it was only US$34.08 in 1999. Several studies have shown that rate of return are highest at primary level of education. In spite of this, it seems that India’s policy makers have refused to learn from the international evidences and turned a blind eye on historical evidences that a decent quality infrastructure for school education is the responsibility of the states.
2.8 CONCLUSION

The foregoing analysis in this chapter has demonstrated the important role played by education in economic development of the country. Most of the studies reviewed both in India and abroad have shown the link of education with economic development. Several studies have shown that rate of return are highest at primary level of education as compared to higher level of education. Despite recognising the benefits of greater education, there has been tremendous heterogeneity in education performance across the states in India.

The education system in India is plagued with the problems of inequities and disparities. While some of the states are near the goal of UEE, others are lagging behind. In the earlier section most of the aspects and issues related to elementary education have been reviewed. It has been observed that despite quantitative expansion in elementary education system in India, the studies on progress of elementary education across states shows significant variation in literacy as well as elementary education and spread of literacy has not been uniform all over the country. One hand there is Kerala where almost every child was attending school and every school was having five teachers and five classrooms. On the other hand there is Bihar where only one out of two children was attending school. Kerala acceded top priority with literacy rate of 90.9 per cent and Bihar was at the bottom with a literacy rate of 47.5 per cent.

The studies on the problem of dropout show that high dropout rate in the elementary education system poses severe threat to the goal of universalisation of elementary education. While the educational system has phenomenally increased its coverage at the elementary level and enrolment rates have increased substantially, the huge dropout continues to deplete the system. In Addition, there is huge gender disparity at elementary level. Form the studies on gender disparity it appears that female literacy has remained very low particularly in rural areas and gender gap persisted in elementary education. Though the literacy rate for girls continues to improve, still girls had lower enrolment, lower attendance rates as well as higher dropout rates compared to boys.

Apart from this, the provision of basic infrastructural facilities in schools presented very dismal picture. It is revealed in various studies that many schools
were not equipped with proper basic facilities like building, furniture, teaching aids, drinking water facility and toilets. Even some schools were found running without a building (running in open area) and those schools that have buildings were facing problem of leakage during rainy seasons.

Besides, various studies have shown inequities in the provision of teachers across the states. It is demonstrated in the studies that schools were facing the problem of high Pupil Teacher Ratio and non availability of reasonable number of teachers. In the states teachers not only dealt with crowded classed but also involved in multi grade teaching. It was also found that there was only single teacher in primary schools both in rural and urban areas.

As far as quality of elementary is concerned, it has been found that learning achievement of Indian children has been very low. It was observed that children reaching in the final year of primary schools were able to acquire knowledge less than half of the curriculum taught to them a year before.

Public provisioning of education has very important role. It has been revealed in the studies that even at comparatively very high level of development and well being, countries such as, France, Germany and USA have been consistent in public spending (close to 6 per cent of their GDP) and few developing countries were also devoting high proportion of their GDP on education. But from the studies on expenditure pattern it is revealed that India is not investing adequate financial resources to provide quality education to all the pupils.

In the third chapter we have tried to analyse the elementary education scenario in India and across the selected states.