CHAPTER 2

LITERATURE REVIEW

Introduction

Literature review is presented in two sections- Section I focuses on the relevant literature pertaining to topic of the thesis. The studies are reviewed according to role and type of school management and other factors influencing quality of education at school level and household level. The literature review has further concentrated on progress of primary education, type of school, school level variables – dropout and enrolment, students-teacher ratio, class size and household level variables - socioeconomic status, parent’s education and parent’s occupation.

Section II provides general overview of the development of government policies and programmes which came into existence in India since independence. Further this section also reveals the effort of non government organizations, contribution of private schools, literacy rate in India, education in Maharashtra and administrative structure of education in Mumbai and Navi Mumbai by type of school management.

2.1 Section I: Literature Review Pertinent to the Objectives of the Thesis

Lot of work is done by various researchers, policy makers, academicians and educational reformers. The outline of various studies, views and comments on subject topics are as follows:

2.1.1 Education Scenario in India

Abbi, 2012, has reviewed the education scenario in India. The paper reviews progress of school education in India using latest government records and recent published studies. The findings showed that primary school enrolment has come close to being universal and current attendance rates as well as literacy rate have risen encouragingly in recent years. There is an improvement in education development index, enrolment, and student -teacher ratio. The imposition of two percent cess for education is a witness to increased commitment of Government to school education. The author has found the spurt in development of private schools. It was found that there was positive effect of private school in enrolment.
Chand, Vijiya, Sherry and Amin - Choudhury, Geeta, 2006, have conducted the study on ‘Shiksha Sangam: Innovations under the Sarva Shiksha Abhiyan (SSA)’ at IIM, Ahmadabad. Government of India has launched the SSA in 2001-2002 in partnership with the state and local-self governments to universalize and improve quality of elementary education in the country. They have used the secondary data of 13 states of India. Authors have concluded that SSA played an important role in reducing the number of out-of-school children.

Kingdon, 2007, has presented an overview of school education in India. The study revealed that India’s educational achievements in international perspective, was relatively better than its South-Asian neighbours- Pakistan and Bangladesh, in certain educational indicators. India lags behind the other countries with which it is increasingly compared, such as BRIC (Brazil, Russia, India and China) economies in general and China in particular. Further, the assessment of schooling access, enrolment, school attendance rates and schooling quality, learning achievement levels, school resources and teacher inputs is done. The study has also examined the role of private schooling in India and relative effectiveness of unit cost of private and public schools. It was concluded that learning achievements in both primary and secondary schooling are very low, signalling poor-quality schooling. The findings suggested that there is need for evaluation of quality of education and relative cost-effectiveness for evidence-based policy-making.

Kothari, 2004, has discussed the challenges of elementary education in India. The study was conducted by NIEPA to explain the elementary education scenario in India using secondary data sources such as Census, the NSS, NCERT and NFHS surveys. The overall development was assessed with respect to gender, age, rural-urban divide, expenditure groups, village amenities, and health status of children. The study has concluded that India was classified in the medium human development category.

Raju and Singh, 2011 have studied the educational development in India at elementary level – an interstate perspective. According to them educational development in different dimensions measured with the help of a number of indicators when analyzed individually do not provide an integrated and easily comprehensible picture of reality. Therefore authors have used appropriate composite index, which can optimally combine development in different dimensions. Another issue was identification of indicators that were independent and collectively measure the educational prosperity of a State/UT. Broadly seven dimensions have been identified for this purpose. Some sub-components, which
together reflect the main component/dimension, were also identified. The data of 7th All India School Education Survey (7th AISES) conducted by NCERT with reference date of 30th September 2002 has been used in this study. As the reference date coincides with the initiation of implementation of SSA interventions in many states, this study may be served as a baseline for assessment of SSA interventions. Data on the aspects which were not covered under the 7th AISES were taken from SSA, DISE and Achievement surveys conducted by NCERT. A composite index is given by Narain et. al. while measuring socio-economic development of states in India was used in this study. On the basis of this index, various States and UTs were compared with respect to systemic quality in the field of elementary education. Kerala stands first when elementary education as a whole is considered. Though, Tamil Nadu was on top position at primary level education, very strong upper primary level education of Kerala pushed the state to forefront at elementary level. The states which were lagging behind at elementary level were Bihar, Jharkhand and Nagaland. The dimensions where these states were lagging behind were identified so that administrators put focused efforts in those weak areas.

2.2.2 Types of School

Abbi, 2013 focused on a growth scenario of school education in Navi Mumbai. It further explained the administrative system of private/public schools and evolution of educational growth over a period of 40 years. The study has utilized the secondary data collected from 431 schools on the various parameters like, type of schools, distance of school, enrolment, and drop out, student-teacher ratio, infrastructural facilities, and year of establishment of schools, medium of instruction, teachers’ qualification, training, salary, gender, and experience. The study revealed that even though the education in public schools is free in Navi Mumbai. Yet there was a significant proportion (63%) of private schools. The proportion of teachers and students in private school was highest and made up of 85% and 87% respectively as compared to public school. The success of primary and secondary education was due to organized urban planning.

Desai, Dubey, Vanneman and Banerji, 2008, have done the research on private schools using secondary data. The author found a large number of studies on public versus private schools in other countries, research on public and private schools in India is still in infancy. Schools in India have mushroomed in the past decade. There is need to know, whether private school can be effectively utilized to provide a viable alternative to public education.
Figlio and Stone, 1997 has developed multinomial logit sector selection model to measure differences in students of mathematics of public and private schools. The data from the National Educational Longitudinal Survey (NELS) administered by the U.S. Department of Education’s National Center for Education Statistics (NCES) was used. The result shows that the private schools may have a number of advantages over public schools. This study has employed uniquely detailed local instruments and jointly models selection into religious and nonreligious private high schools, relative to public high schools—improving instrument power in predicting private sector attendance to roughly three times that of prior studies. With adequate correction, religious schools were modestly inferior in mathematics and science, while nonreligious schools were substantially superior. However, minority students, particularly in urban areas, benefited from religious schools. Other factors that may make both religious and nonreligious private schools attractive include possibly better retention rates, increased security and discipline, and greater opportunities for a variety of specialized school-day and extracurricular activities.

GOI 2010, has released the statistics on type of schools, which indicates that out of total schools (230683) in 1950-51, 91% were primary schools, 6% upper primary and 3% secondary schools and above. In 2009-10, simple annual growth rate of schools for primary was 4.8% and nearly 39% for upper primary and higher secondary schools. Govinda 2011, has done an in depth analysis on government and private schools using the factors like educational access, enrolment, dropout, attendance, progression, social and gender equity in education, level of achievement, quality of education, teachers and teachers education, local governance and community participation, using secondary data. Based on population norms, modifying traditional distance and opening schools in small habitations has yielded positive results. The author found that government schools are more expensive than private schools with lower teacher accountability in India. However, because of poor quality and scarcity of public education, private education has become the necessity for India.

Kingdon 2007 and Verma 2007, pointed out that private schools often provide superior results at a fraction of the unit cost of government schools. Author has found, the size of private sector is greatly under-estimated in official published statistics, particularly at the primary level, owing to excluding ‘unrecognized’ schools, given that more than 50 per cent of all private primary schools are unrecognized. Author is of the view that even if one ignores the numerous
unrecognized schools and look instead at recognized schools only, it is clear that the private schooling sector is growing extremely rapidly in urban areas and more slowly in rural areas. It was found that, controlling for student background; private schools are more effective in imparting learning and do so at a fraction of the unit cost of government schools. The study revealed that major reason for private schools’ massive cost advantage over public schools was that they can pay market wages while government school teachers’ bureaucratically set salaries, which teacher unions have fought hard to secure. The spread of fee-charging private schooling represents growing inequality of opportunity in education. It was concluded that, the pattern of growth of private schooling in urban areas (fastest at the primary level, slower at the middle and secondary levels) gives cause for equity concerns, since the children of the poor are best represented at the primary level of education and progressively less represented at further levels.

Khuluse, 2004, has studied the role of school management teams in facilitating quality of education in schools in South Africa. The author found gender gap that there were more males at the School Management Structure than females, imbalance of the racial composition in some schools, insufficient involvement of staff in defining school goals, some members of management do not consult staff on curriculum needs or changes, to work collaboratively with staff to improve the quality of teaching in the classroom, most schools do not work according to a properly structured evaluation or supervision programme, most schools need to improve their strategic planning. The findings indicated that some School Management Teams are ineffective in facilitating quality education in their schools because they do not have the expertise to lead and manage schools.

Muralidharan and Kremer, 2007, their paper presents results from a nationally-representative survey of rural private primary schools in India that was conducted by authors in 2003. They have compared the primary education in public and private schools in rural India. They found that private unaided fee-charging schools are widespread in rural India, particularly in areas where the public system is dysfunctional. The number of such schools appears to be growing rapidly with both demand-side variables (desire for English-medium education, less multi-grade teaching, smaller classes, more accountable teachers) and supply-side variables (availability of educated unemployed youth) playing an important role in this rapid growth. Salaries paid by these schools are only about one-fifth of those paid by public schools, but these schools have many more teachers relative to the number of pupils, and the private-school teachers are more
sincere in teaching than public school teachers. They have suggested improving the quality of education in India in the private as well as public schools. The result showed that private schools have lower teacher absence and higher levels of teaching activity than public schools. The attendance of students was higher in the private schools relative to the public schools.

2.2.3 Dropout and Enrolment of students

Bandyopadhyay and Govinda 2008, have made an attempt to review the access to Elementary Education in India in their report which is based on CREATE Country Analytical Review (CAR) in India. The report consisted of a fairly large exercise involving several scholars working intensively on the various sub-themes related to elementary education in India. The authors have stated that, Indian scenario is too complex and varied to be effectively captured through aggregate national figures in relation to the availability of schooling facilities across the country and their optimum use for educating all children. At one end of the spectrum, there is Kerala with practically every child completing elementary school and transitioning to secondary school; and almost every school having at least five teachers and five classrooms. At the other end, there is Bihar where only one out of two children in the relevant age group is in school; the majority of children entering school fail to complete an elementary cycle; many schools are understaffed; and teachers are often untrained and given little academic support.

Manandhar and Sathapit 2011, has employed statistical analysis on causes of primary School Dropout in Nawalparasi District of Nepal. The sample of 599 dropout children was interviewed. The maximum dropout rates 10.3% and 21.9% were observed in grade I and in the age six years respectively. The mean age of primary school dropout children was 8.51 years. Boy’s dropout rate was slightly higher than girl’s but there was no significant difference between the dropout and sex of the child. Father’s education, father’s occupation, mother’s education and total number of children were also negatively correlated with drop out. To reduce dropout rate of primary school age children, the parents should be made literate through adult literacy program and made aware & motivated regarding the importance of education.

Mehta 2007, has analysed the secondary data of different states and union territories of India, he has computed survival rate, retention rate, grade and promotion rate. He has concluded that an
indicator should be developed to measure dropout rate based on secondary data. True-cohort study in which each and every enrolled child is tracked should be undertaken and can be used for assessing the quantum of drop-out as well as the completion rates. Retention rate, by using enrolment and repeaters data over a period of five years should only be utilized to assess the retaining capacity of an education system. The root cause of high incidence of drop-out can easily be identified by calculating the grade-to-grade flow rates, such as promotion, drop-out and repetition rates. This will help a block/district/state in identifying a grade(s) wherein there is high incidence of drop-out and repetition. He has demonstrated in this study, grade-to-grade transition rates and developed indicators of internal efficiency of an education system.

**Pratham 2006, and Govinda 2011,** has given the results on learning level of Indian children, enrolment and dropout trends in school, gender differences and school functioning. They found the rising enrolment of children but declining attendance, over-reliance on private tuitions, decline in reading and mathematical ability of children in the age group between six and 14. Apart from this, enrolment of students in private schools has seen a sharp increase.

**Thangaraj 2002,** studied the impact of mid day meal scheme on enrolment and retention in Tamil Nadu. The schemes helped to improve the strength and enrolment in schools and remove malnutrition of children. The evaluation of the scheme clearly showed an upward trend in the education status of children. The dropout rates had also come down in Tamil Nadu due to mid day meal.

**1.2.4 Students-Teacher Ratio**

**Maier, Molnar, Percy, Smith, & Zahorik, 1997; Molnar, Smith, & Zahorik, 1998,** conducted research studies, particularly Tennessee’s Project Challenge and Wisconsin’s SAGE program. In the SAGE (Student Achievement Guarantee in Education) classrooms, analysis of the average performance of students in grade-1 during 1996-97 and 1997-98 recommended the lower student-teacher ratio. Likewise, the analysis found the negative student achievement because of the poverty. Although the SAGE classrooms enrolled more students and facilitated with subsidized lunch, yet these classrooms got a higher level of student achievement as compared to the other school classrooms.
Alderman, Orazem & Paterno, 2001, has conducted the study on the school quality, school cost, and the public/private school choices of low-income households in Pakistan. The study concluded that higher student-teacher ratio had a consistent negative effect on student achievement particularly on language skills.

Dahar, Dahar and Dahar, 2009, conducted the study to find out the impact of student teacher ratio, class size and per student expenditure on the academic achievement of students at secondary stage in Punjab (Pakistan). Student teacher ratio, class size and per student expenditure are very important in academic achievement of school. Overall, a total of 288 schools were chosen, then 20 students and 10 teachers from each school were randomly selected as the sample of the study. The finding revealed that there was statistically significant relationship and the differential impact of student-teacher ratio for science students. However, these were insignificant for arts students. There was positive correlation which means that higher student-teacher ratio produced the higher level of academic achievement. Likewise, the study found that the urban schools with higher student-teacher ratio achieve higher level of academic achievement. However, the rural schools produced lower level of academic achievement with the lower student-teacher ratio. Furthermore, the study found that the average student-teacher ratio in the 288 schools was 28 at secondary stage. However, it was 18 in the rural areas and 37 in the urban areas. This misallocation of student-teacher ratio between the rural and the urban areas was a great discrepancy.

Graddy and Stevens, 2003, has carried out a study of private schools in United Kingdom to know the impact of school inputs on student performance. The findings suggested that student-teacher ratio was the important determinant for achieving better results after controlling for other school and student characteristics. This study found that the lower student-teacher ratio and smaller class size have impact on student achievement.

GOI, 2000, has stated that the average number of students per teacher in all categories of schools in India shows that highest number of student-teacher ratio was in Bihar (1:54) followed by West Bengal (1: 47) and minimum ratio was in Mizoram (1:16) The average student-teacher ratio for India was 1:37 which was quite high as compared to international standard.
Jain and Mital, 2011, have done the assessment of Sarva Shiksha Abhiyan (SSA) in Sarvodaya Schools of Delhi, authors have observed that the norm under SSA, which says teacher to student ratio should be 1:40, was not being followed in schools completely and measures should be taken to reduce the size of the classes. Student to teacher ratio was found to be more in most of the schools since after Class V students from feeder schools were also merged in these schools in addition to the existing ones and schools could not deny admission to them. This further distorted the student teacher ratio in middle classes. Therefore, measures should be taken to reduce the number of students that are merged from the feeder schools in order to maintain the proper ratio.

Johnson and Turner, 2009, studied ‘Faculty without Students: Resource Allocation in Higher Education’. They have presented some evidence on the extent of the variation in faculty resource allocation by field and the broad changes over the last several decades. They explained the ongoing disparities in student–faculty ratios across fields and disciplines, which suggests that a substantial part of the explanation may reside in the politics rather than the economics of decision making in institutions of higher education.

Levacic et al, 2005 have estimated the relationship between school resources and pupil attainment at key stage using the secondary data. The analysis concluded that reduction in the student-teacher ratio had a statistically significant positive effect on math achievement. However, there was no impact of student-teacher ratio on science achievement and English achievement.

OECD, 2009, Organization for Economic Co-operation and Development (OECD) stated that the ratio of students to teaching staff is an important indicator of the resources devoted to education. A smaller ratio of students to teaching staff may have to be weighed against higher salaries for teachers, increased teacher training, greater investment in teaching technology, or more widespread use of assistant teachers and other paraprofessionals whose salaries are often considerably lower than those of qualified teachers. Moreover, as larger number of children with special educational needs are integrated into normal classes, more use of specialised personnel and support services may limit the resources available for reducing the ratio of students to teaching staff. The ratio of students to teaching staff is obtained by dividing the number of full-time equivalent students at a given level of education by the number of fulltime equivalent teachers at that level and in similar types of institutions. However, this ratio does not take into
account instruction time compared to the length of a teacher’s working day. The ratio of students to teaching staff in primary education, expressed in full-time equivalents, ranges from 25 students or more per teacher in Korea, Mexico and Turkey and in the partner country Brazil, to fewer than 11 in Greece, Hungary and Italy. The OECD average in primary education is 16 students per teacher.

2.2.5 Class Size

Angrist and Lavy, 1999, used a regression discontinuity design to analyze the effect of class size on student achievement. The class sizes were determined by the Maimonides’ rule in Israel. According to that rule, the maximum class size is 40. Two classes are automatically created if the total enrolment is greater than 40. Likewise, there will be three classes if the numbers of students are greater than 80 and so on. The researchers exploited these irregular changes. This study found that class size has a positive and significant effect on student achievement in reading comprehension and mathematics.

Bonesronning, 2003, has investigated the effects of class size on student achievement in Norway. Contrary to Fuller & Clarke findings in 1994, that class size has no effect in the upper grades of many countries, including Botswana, Philippines, and Thailand. However, in Tanzania, there was a positive effect of class size on achievement. The author found that effect varies among student sub-groups. This effect was larger in schools with a higher proportion of students from intact families, however, it was conditional on student effort.

Biggs 1999, Jin and Cortazzi, 1999, have discussed the issue of teaching for quality learning in university. According to them in these studies, class size in the Asian countries is quite large; however, the students in these countries consistently have been getting higher scores in the international math achievement tests. In Singapore and China, students from elite classes get higher scores than the average. Similarly, class size is also larger in the TIMSS (Trends in International Mathematics and Science Study) participant countries than the international average. However, the achievement levels are above the international average.

Blatchford & Mortimore, 1994; Klein, 1985, have discussed the issue of class size in schools. Researchers exposed that students in the large classes desired to spend less time on class
assignments. However, students in smaller classes desired more participation in addition to spending more time on schoolwork.

**Dahar, Dahar and Dahar, 2009**, have conducted the study to find out the impact of student teacher ratio, class size and per student expenditure on the academic achievement of students at secondary stage in Punjab (Pakistan). There was positive relationship of class size with academic achievement. The positive relationship shows that larger class size produced the higher level of academic achievement. Likewise, smaller class size produces the lower level of academic achievement. Furthermore, the study also identified an average class size in the rural areas was 35; however, it was 61 in the urban areas. In the rural areas, class size was smaller with lower level of academic achievement. However, there was larger class size with higher level of academic achievement in the urban areas. This is a serious problem. Furthermore, it was also stated that there was a possibility that the schools where effective teachers and head teachers struggle hard, larger class size may produce higher level of academic achievement. On the other hand, the schools where teachers and head teachers do not work hard, smaller class size may produce lower level of academic achievement.

**Hanushek, 1995**, has used the secondary data of study done by World Bank research on schooling in developing countries. The discussion revealed that the class size was large in the developing countries and the Asian countries. It was found that one of the biggest problems faced by students in large classrooms is the quantity and quality of learning material not available to all the students, in the developing countries.

**Krueger, 2003**, has examined the effect of class size on student achievement using secondary data of a large number of countries. First, it was shown that results of quantitative summaries of the literature depend critically on whether studies are accorded equal weight. When studies are given equal weight, resources are systematically related to student achievement. When weights are in proportion to their number of estimates, resources and achievements are not systematically related. Second, a cost-benefit analysis of class size reduction is performed. Results of the study of Tennessee STAR class-size experiment suggest that the internal rate of return from reducing class size from 22 to 15 students is around 6%.
Lindahl, 2005, found the significant effects of smaller class sizes on student achievement. The study examined the effect of class size in natural variation by using longitudinal approach. The study used a sample of a total of 556 students in 16 schools in Stockholm. The students were examined by a standardized test in mathematics on three occasions. The average student’s percentile rank was between 0.37 and 0.98 units (depending on model specification) with a reduction in class size by one student. The study also showed more gains for immigrant students than native Swedes from the smaller class sizes.

Michaelowa, 2001, has examined the determinants of learning achievement and efficiency consideration in primary schools in francophone sub-Saharan Africa to find education quality. The author has established an inverse correlation between class size and learning outcomes. It showed the decreased student learning with the increased class size; however, learning effectively stopped once class size exceeded 62.

Mitchell et al., 1989, developed six models and six theories of how class size affects student achievement. Three of them emphasize on a direct correlation between larger class size and declining achievement test scores. Furthermore, these theories are greater instructional overhead, increased student interaction time and decreased access to fix instructional. These theories suggest that addition of more students to a class lessens the teacher effectiveness. However, the other three theories emphasize that the correlation between more students and the altered classroom performance was indirect. These theories were class heterogeneity, instructional pacing, and student grouping or achievement modelling. There were some other factors rather than the number of students; those were the causes for effects. These factors were associated with the student assigning to large and small class sizes.

Mosteller, 1995 and Krueger, 1999, found that the effect of class size on student achievement was very large in the Student Teacher Achievement Ratio (STAR) project experiment. They have stated that smaller class size positively affected the standardized test scores. With the passage of time, this effect increased. However, this effect was larger for the beneficiaries of the free lunch program and the minority students. Likewise, students out performed in the small classes in the regular and the regular with aid classes by a great margin.
OECD, 2009, study pointed out that class size is a hotly debated topic and an important element of education policy in many OECD countries. Smaller classes are often perceived as allowing teachers to focus more on the needs of individual students and reducing the amount of class time they spend dealing with disruptions. Smaller class sizes may also influence parents when they choose schools for their children. In this respect, class size may be viewed as an indicator of the quality of the school system. Yet evidence on the effects of differences in class size upon student performance was mixed (p. 372). At the primary level, the average class size in OECD countries in 2007 was slightly more than 21 students per class, but this number varies widely between countries. It ranges from 31 or more students per primary class in Korea and the OECD partner country Chile to fewer than 20 in Austria, the Czech Republic, Denmark, Finland, Greece, Iceland, Italy, Luxembourg, Mexico, Poland, Portugal, the Slovak Republic, and Switzerland (public institutions) and the partner countries Estonia, the Russian Federation and Slovenia.

Rivkin, Hanushek, & Kain, 2000, reviewed the teachers, schools, and academic achievement using secondary data. The study has concluded that effects of class size were small on academic achievement. The study also concluded that it raised doubts whether more funds would raise achievement significantly. This seemed impossible under the existing organizational structures of institutions.

2.2.6 Quality of Education

Adeyemi, 2004, has done an analytical assessment of the effective management of primary schools in Ekiti state, Nigeria. He has investigated the management of education in 394 primary schools in Ekiti state. The finding shows that level of management of primary schools was very low and ineffective as compared to others. The variables such as school size, school location, teacher’s experience were found to be critical in effective management of primary schools.

Aturupane, Glewwe, Wisniewski, 2013, have conducted the study of grade 4 students in Sri Lanka to evaluate the impact of school quality, socio-economic factors and child health on students’ academic performance. The findings provide that Sri Lanka has achieved universal primary completion, but many Sri Lankan primary school students perform poorly on academic tests. At the child and household level, educated parents, better nutrition, high daily attendance, enrolment in private tutoring classes, exercise books, electric lighting and children’s books at
home all increase learning, while hearing problems have a strong negative effect. Among school variables, principals’ and teachers’ years of experience, collaborating with other schools in a “school family”, and meetings between parents and teachers all have positive impacts on students’ test scores.

Banerjee, Cole, Duflo and Linden, 2003, has presented the results of a two-year randomized evaluation of a large scale remedial education program, conducted in Mumbai and Vadodara, India, and the preliminary results of a randomized evaluation of a computer assisted learning program in Vadodara. The remedial education program hires young women from the community to teach basic literacy and numeracy to children who reached standard three or four without having mastered these competencies. The program, implemented by a NGO in collaboration with the government, was extremely cheap (it costs 5 dollars per child per year), and is easily replicable: It is now implemented in 20 Indian cities, and reaches tens of thousands of children. Authors found that the program was very effective: On average, it increased learning by 0.15 standard deviations in the first year, and 0.39 in the second year. The gains were the largest for children at the bottom of the distribution: Children in the bottom third gained 0.18 standard deviations in the first year, and 0.59 in the second year. The results were very similar in the two standards, and in the two cities. At the margin, extending this program would be 4.5 to 6 times more cost effective than hiring new teachers. The preliminary results of the computer assisted learning program, which was planned to be widely implemented in India, were less impressive: on average, the program has increased test scores by an insignificant 0.10 standard deviations. The effect was higher (and significant) in schools where the remedial education program was also present. On the basis of these estimates, extending the computer assisted learning program would appear less cost effective than hiring new teachers.

Brunello and Rocco, 2008, has developed a sequential Hotelling-type model, when private schools can offer a lower educational standard at a positive price because they attract students with a relatively high cost of effort, who would find the high standards of public schools excessively demanding. The finding shows that costly effort was only one possible factor driving this result. Alternatives include the fact that private schools provide access to labor market networks, which provide access to better jobs more easily because of the connections they afford, or that they were snob goods, which were consumed because of the reputation they offer, even if
quality was lower than in the public school. In either case, the intuition remains the same: by offering services that are not strictly related to quality, private schools can charge a positive price, offer lower quality than public schools and still make positive profits. When the educational standard of the public school was chosen by majority voting, it showed that the choice between a configuration with high quality public schools and a configuration with high quality private schools depends on the marginal return to the educational standard relative to the marginal cost of setting up the standard. The authors have calibrated the model by using micro-econometric evidence from the US and Italy and found that, based on the calibrated parameters, majority voting in the US produces a system with high quality private schools and low quality public schools. This system was also the one chosen by a social planner who maximized household welfare using a utilitarian welfare function. In Italy, another majority voting equilibrium prevails, with public schools setting higher educational standards than private schools. Therefore, Italy and the US can be seen as two different equilibrium of a model of educational standards. The model discussed in their article has two important policy implications. First, high school reforms that improve educational standards and introduce curriculum-based external exams, may improve the returns to educational standards in the US. If such an improvement was large enough, then their model suggested that the system actually in place could shift away from equilibrium with low quality public schools. Second, policies such as school vouchers require that private schools were better from an educational viewpoint. If these schools turn out instead to be of lower educational quality than public schools, as in the Italian equilibrium, a key element of the policy justification for vouchers was likely to fall.

Chapman and Adams, 2002, pointed out that the increased concern for education quality has resulted from a variety of factors including: (i) inability to adequately staff and finance rapidly expanding education system; (ii) research-based evidence of low levels of learning in basic skills; (iii) new demands for advanced language, mathematics, and, increasingly, computer skills, stemming from industrialization; and (iv) financial crises that have had an adverse effect on education budgets – in some cases reducing internal efficiencies and eliminating plans for qualitative improvement.

Cooper, 1998, has conducted the study in US, to examine the success for all school restructuring program in more than 1,100 elementary schools in urban locations. The data collection strategies
included surveys, one-on-one interviews, group interviews, focus groups, and school site observations. The goal of the analyses was to document the evolution of the implementation process and identify factors that contribute to the successful replication of Success for All and the scaling up process. The analyses examined factors related to quality of implementation in schools where the implementation was identified as high quality, medium quality, and low quality.

The quantitative analyses identified six within-school factors and three socio-cultural factors that significantly influenced quality of implementation of the program. The within school factors that contributed to high quality implementation were the creation of a supportive culture for institutional change, the overcoming of program resistance on the part of a minority of teachers, a commitment to implement the structures of the program, a strong school-site facilitator, less concern among teachers for handling an increased workload and availability of program materials. The three socio-cultural factors that contributed to high quality implementation were lower student mobility, higher school attendance rate and a greater percentage of the student body being white.

Qualitative analyses based on case studies of 25 schools provided further elaboration on the influence of the racial composition of the student body in the schools, the factors involved in program resistance, and the importance of each school having a full-time school-site facilitator.

Bandyopadhyay and Govinda, 2008, have given the analytical review of access to Elementary Education in India. The research on which this paper is based was commissioned by the Consortium for Research on Educational Access, Transitions and Equity (CREATE) for the benefit of developing countries. This CREATE Country Analytical Review (CAR) in India consisted of a fairly large exercise on the various sub-themes related to elementary education in India. The analysis has identified many fertile areas for research within CREATE not all of which can be covered in depth. These include need to understand the dynamics of extending access at system level, at the level of the individual and households that make local decisions on sustained participation; develop more integrated analysis of the multiple causes of exclusion that embrace poverty, gender, social discrimination and location; recognize that silent exclusion is real for those enrolled but learning little and for those who are displaced and outside normal educational administrative systems e.g. migrants; highlight the importance of early childhood
health, nutrition and its consequences for subsequent successful completion of basic education; revisit issues that surrounded public school financing in pro-poor ways and the opportunities, limitations and hazards associated with new forms of public private co-operation with both for profit and not for profit providers; and to develop more sensitive and useful indicators and data interpretation methods that capture the nuances of equity and distributional injustices that are often concealed by existing targets for universalizing access.

Govinda and Vergees, 1993, have examined the quality of primary schooling in India: A case study of Madhya Pradesh, which shows that a trained teacher makes considerable difference in terms of teaching style and classroom management. The authors are of the opinion that several researchers and reports indicated improvement in learning level of children depend not only on expansion of schooling provision but also on availability of ample instructional time and its effective use. It is the teacher who plays an important role in effective use of instructional time.

Grover and Singh, 2002, have conducted the study on the Quality of Primary Education in Madurai and Villupuram District in Tamil Nadu, India. They have done quality assessment based upon school observations, interviews and research conducted in two districts of Tamil Nadu. The salient findings were that key structures are in place for imparting quality primary education. However, several weaknesses in the system of educational administration and management currently limit the quality of education provided. A strengthening of crucial elements of the education system is needed in order to achieve the two important goals of building 1) Strong accountability in the system and 2) evaluating the quality of the system by regular. Monitoring of student learning, and thus, improving the overall efficiency of the system. They have mentioned in their article that the expansion of primary education in India over the last decade has been phenomenal. But, by all accounts, the expansion of the Indian education system has led to deterioration in the quality of education. They have suggested to i) Redesign the system of district level education administration and school management; ii) Institute a system of monitoring and evaluation of student learning; iii) Improve the efficiency of the teacher training process; iv) Explore innovative options for financing the reforms.

Indian Institute of Education, 2002, prepared the report on ‗Status and Evaluation Study of the Upper Primary Section of the Elementary Education System‘ in India. The report has focused on various aspects of elementary education, infrastructure, teaching learning equipment, number of
teachers, training of teachers and its impact. It was found that the lacunae are not at the policy level, but at the implementation level. Effective implementation of existing schemes like free mid-day meals, free provision of textbooks and attendance allowance has to be ensured in some way to reduce drop-out and raise retention and attendance.

Kingdon, 1996, has made an attempt to find the Quality and Efficiency of Private and Public Education in Urban India using secondary data. The author has given the evidences on the relative quality and efficiency of private and government-funded schools in Uttar Pradesh, it shows that standardizing of home background and controlling for sample selectivity greatly reduces the raw average achievement advantage of private school students over public school students, but does not wipe it out. Private schools' standardized achievement advantage (or better quality) is complemented by their lower unit costs to enable them to be more efficient. The results support much of the existing international evidence on the relative efficiency of private and public schools. The findings from the case study of Uttar Pradesh suggest that the popularity of fee charging private schools in India was explained by their superior quality. Government and Private Aided schools are similar in their cost-efficiency but compare unfavourably with Private Unaided schools. This suggested that the quality and cost-efficiency of government funded schools need to be greatly improved. It also suggested that encouraging Private Unaided schools would lead to gains in efficiency as these institutions were both more technically efficient and more cost-efficient. Permitting more fee-charging schools in secondary education would also be equity-promoting because they support the redistributive role of publicly funded provision, allowing educational subsidies to be better targeted at the poor.

Mehta, 2008, presented analytical report of NUEPA for the year 2006-07 on Elementary education in India: progress towards Universalization of Elementary Education (UEE). The District Information System for Education (DISE) covers both primary and upper primary schools/ sections of all the districts of India. The finding revealed that smaller states were doing much better than a number of bigger states. There was also need to analyze each indicator separately and identify states that need improvement. The dropout rate was high at primary level; it needs to be checked, without which neither the goal of universal primary education nor retention can be achieved.
Mahmood and Khatoon, 2011, have examined the effects of school type, gender and mathematics anxiety on mathematics achievement. The population consists of 863 males and 789 females from 15 secondary schools of Uttar Pradesh (India). The Mathematics Achievement Test and Mathematics Anxiety Scale were used for data collection, while stepwise multiple regression, ANOVA, t-test and correlation techniques were used for statistical analysis. The results of the analysis showed that among the three independent variables, school type had the greatest influence on mathematics achievement (46%), mathematics anxiety comes second in order while gender showed no significant influence. Moreover, the students of Missionary and A.M.U. schools had highest mathematics achievement, while students of Government and Government Aided schools had lowest achievement scores, moreover scores of students of Muslim and Hindu Managed schools slide in between the range of highest and lowest achievement. Further males reported more mathematics achievement than females and students with low mathematics anxiety had highest achievement scores. Findings also reveal a significant negative correlation (-0.48) between mathematics achievement and mathematics anxiety.

Mukhopadhyay and Parhar, 1999, have edited the book on Indian Education: Developments Since Independence. It was summarised that the majority of the schools were of poor quality (by international standards), there are specks of excellence. The scenario was fraught largely with poor quality; there has been an increasing expression of concern for quality.

Parker, Hannah and Topping, 2006, have learned the collective teacher efficacy, pupil attainment and socio-economic status in primary school. Their study explored the relationships between Collective Teacher Efficacy (CTE), socio-economic status (SES) and pupil attainment levels in reading, writing and mathematics. Significant positive relationships were found between SES and attainment in reading and mathematics and attainment in reading and writing. CTE appeared to have a much stronger independent impact than SES in writing. School climate or ethos, high quality in-service training as well as focus upon pedagogy were perceived as the most potent factors in raising attainment.

Plan India, 2009, has presented a summary of the study 'Participatory approach to identify reasons for exclusion among out of school children' conducted in 4 states of India. ‘Why are children out of school?’ The report provides in-depth insight into the circumstances of communities and reasons for not sending their children to school in the age group 6-14 years,
where Plan operates. It was found that unfriendly behaviour of teachers, use of abusive language and corporal punishment, schools are far off, lack of sports equipment, recreational facilities, burden of work i.e. domestic chores and sibling care for girls, and farm work, cattle grazing for boys were the key factors that keep children out of school.

PEO, 2010, The Programme Evaluation Organisation (PEO), Planning Commission initiated the evaluation study of SSA to review the progress in terms of its objectives and related targets. The study also tried to assess the extent to which the approach\ strategies adopted under SSA have been effective, to identify the bottlenecks in the implementation of the scheme and suggest the way forward to design future programmes and policies.

The study covered eleven states for both rural and urban samples. Thirteen towns were canvassed for assessment of SSA interventions in urban schools in slum areas. The study has brought out certain achievements in terms of access to education. More than 98% of the sampled rural habitations have access to elementary schools within 3 Kms. While 93% of sampled slum children have access to neighbourhood schools within 1 Km. It is also worth mentioning that the number of un served habitations in the sampled villages have declined across all the states. The overall, gross enrolment ratio in the sampled districts rose from 89% in 2003 to 93% in 2007. In sampled slum areas school enrolment rose by 18% during the same period.

OECD, 2005, the Organization for Economic Co-operation and Development (OECD) has considered school factors related to quality and Equity- results from Programme for International Student Assessment based on the data of PISA 2000, (Programme for International Student Assessment). The study has examined the secondary data of 42 countries (27-OECDcountries and 14-partner countries) of the structure of schooling – including the grouping of students, segregation of schools, management and financing, school resources, and the instructional climate – influenced the quality and equity of educational outcomes. This study analyzed evidence from PISA 2000 in which school factors were associated with better quality and more equitable student performance. The finding showed that the school performance differs, but far more so in some countries than in others PISA 2000. The socio-economic composition of schools was strongly related to student performance. Many school factors interact with the socio-economic composition of schools, raising important questions about equality in educational opportunities. Early selection was also closely associated with school difference and
social disparities. School autonomy has been realized to a considerable extent with regard to responsibilities for student policies, financial resources, curriculum and instruction. Responsibilities within autonomous schools mainly lie with the school board and school principal. School autonomy was associated with better student performance. Independent private schools have more autonomy and a more advantaged student intake and this was also true for government-dependent private schools in 15 countries. Public schools had a comparatively lower quality of school conditions when measured by school climate and material resources, but not by teacher quality. Independent private schools and government-dependent private schools outperformed public schools in many countries, but this appeared to be largely due to an advantaged student intake.

Rajaram, 2000, has analyzed the educational level, school attendance and school continuation in India using the data from the National Family Health Survey. The findings suggested that formal education should be provided to all sections of the population to ensure educational continuity particularly of the vulnerable sections of society.

Varghese 1996, has analyzed the ‘Decentralization of Educational Planning in India: The Case of the District Primary Education Programme’ He has concluded that even when students were retained in schools, they do not learn what they are supposed to learn. Low levels of learning at the primary stage were almost a universal phenomenon in India.

Yanhong, 2008, has studied the world education indicators, to obtain cross-national data on how schools function, including the level of school resources and potential indicators of practices related to quality and equality issues in education from 11 countries. The key findings show the teachers are not satisfied with their salaries, Educators, parents, policy makers and the public need to work together for a positive result.

2.2.7 Socio-economic Factors

Ahmeduzzaman, 1992, conducted a study on socio demographic factors, functioning styles, social support and father’s involvement with pre-schoolers’ in African American families. It was found that the family income was a chief variable associated with different dimensions of father’s involvement with children.
Cherians, 1990, study revealed a negative relationship between family size and their academic achievement. He conducted a study on family size and academic achievement of children. The sample consisted of 369 boys and 652 girls in the age range of 13 to 17 years.

Devi and Mayuri, 2003 examined the family and school factors that affect the academic achievement of residential school children studying in IX and X classes. The sample consisted of 120 children of Hyderabad city. An interview schedule was developed by the investigator to study the family factors. A significant contribution by family factors like parental aspirations and socio-economic status, to academic achievement was observed.

Gerwal, 1985 carried out a study to find out the effect of socio-economic status on academic performance of children. The sample consisted of 550 students (355 boys and 200 girls) from 16 higher secondary schools of Bhopal studying in class XI, with modal age of 16. The socio-economic status of parents was assessed by using Kuppuswamy’s socio economic status scale. The results revealed that academic performance was influenced by socio economic status of the subjects.

Khan and Jemberu, 2002, studied the influence of family and socio-economic status on educational and occupational aspirations of high and low achieving adolescents. The sample consisted of 80 students selected from 4 status – middle status / high achieving status / lower status / high achieving and lower status. Occupational and educational aspirations scales were administered for data collection. Results showed that the impact of socioeconomic status on educational aspirations was minimal; its influence on occupational aspiration was larger.

Lewbank et al., 1993, conducted a study in US on “Parental relationship practices of single mother mediating of negative contextual factors”. Subjects were 50 divorced mothers and their sons. Results showed that socio-economically disadvantaged mothers had less effective discipline and their sons were at greater risk for antisocial behaviour problems because of disrupted parental relationship practices.

Mcloyd, 1990, in his study on “The impact of economic hardship on black families and children” in US, concluded that the poverty diminishes the capacity for supportive consistent and involved parental relationship. A major mediator of the link between economic hardship and
parental relationship behaviour was psychological distress from negative life events, undesirable chronic conclusions.

**Wango et al., 1991,** conducted a study on the sample of 180 female students from ten government and ten private schools, within the age group of 13, were selected from Srinagar. Kapoors SES scale was administered and the mean of the two annual examination results was considered as the criterion for the academic achievement. The finding shows that there is impact of SES on academic achievement of student.

2.2.7.1 **Parent’s education**

**Bhatnagar and Sharmas, 1992,** investigation was designed to study the relationship between parental education and academic achievement of students. Academic Achievement was assessed using examination scores and Udaipareek and Trivedi’s test of socio-economic status was used, to assess parental education. The sample consisted of 1st 5th , 9th, 10th and 11th class students in semi rural setting in Rajasthan. Results indicated that the children whose parents were educated performed at a significantly higher academic level than who did not have school education.

**Pal and Pradhan, 1996** studied socio-psychological factors which promote students mathematics competence among urban and tribal students. The sample comprised of 194 urban and 132 tribal students. The mathematics achievement test developed by National Council of Educational Research and Training (NCERT) was administered. The test of significance revealed that mathematics competence of urban students was positively and significantly related to father’s education. Urban students whose fathers had higher educational status performed better in mathematics.

**Pamela E Davis-Kean, 2005** examined the process of how socioeconomic status, specifically parents' education and income, indirectly relates to children's academic achievement through parents' beliefs and behaviors. Data from a national, cross-sectional study of children was used for this study. The subjects were 868 8-12-year-olds, divided approximately equally across gender (436 females, 433 males). This sample was 49% non-Hispanic European American and 47% African American. Using structural equation modeling techniques, the author found that the socioeconomic factors were related indirectly to children's academic achievement through parents’ beliefs and behaviors but that the process of these relations was different by racial group.
Parents' years of schooling also was found to be an important socioeconomic factor to take into consideration in both policy and research when looking at school-age children.

**Penda and Jena, 2000** conducted a study on “Effect of some parental characteristics of class IX student’s achievement motivation. The sample selected for the study was 200, 8th class students from 6 secondary school located in the headquarters of Jaipur and Kalahandi district. The achievement motivation test developed by Rao was used to assess achievement motivation. Critical ratio (t-values) was computed to compare students’ scores on achievement motivation. Students belonging to fathers of service group and high educational qualification category were found to have significantly better achievement motivation as compared to their counterparts.

**Pandey, 2008,** in his study observed relationship of academic achievement with Parental education. The study was conducted on 92 higher secondary students of Mizo tribes. Self prepared information form for parental background and the marks obtained by the students in the half yearly examination from official record for achievement scores were used. The results revealed that academic achievement of students was not affected by educational level of parents as the ‘t’ value (0.87) was not significant.

2.2.7.2 Parent’s occupation

**Budhdev, 1999,** designed a study to compare academic achievement among children of working and non working mothers studying in secondary school of Saurashtra region. The sample included 307 boys and 343 girls of working mothers and same number of boys and girls of non working mothers. Academic achievement score was collected from the annual worksheet of schools. It was found that academic achievement of children of working mother was greater than the children of non-working mothers.

**Gill and Sidhu, 1998** carried out a study on academic achievement in the children belonging to different socio-economic groups in rural Punjab. The sample consisted of 80 students studying in 9th class. On the basis of the information collected from the students, the subjects were divided into their socio-economic groups i.e., servicemen, agriculturist and labourers. The total marks obtained in 8th standard verbal intelligence scores and nonverbal intelligence scores were taken. The results showed that highest marks were obtained in the service group followed by
agriculturists, followed by the labour class. Hence the results showed that occupation of parents influenced the school performance of their children.

Pandey, 2008 in his study reported that the academic performance of the students of one parent working group was better than both parents working group. The sample chosen for the study were 30 students both parents working and 37 students with one parent working. Self prepared information form for parental background and the marks obtained by the students in the half yearly examination for academic achievement were used.

2.2 Section II: Review of Government Policies & Programmes on School Education Since India’s Independence

2.2.1 Education Since Independence-1947

Since the nation's independence in 1947, the Indian government sponsored a variety of programmes to address the problems of illiteracy in both rural and urban India. Maulana Abdul Kalam Azad was, India's first Minister of Education, envisaged strong central government control over education throughout the country, with a uniform educational system. The Union government established the University Education Commission (1948–1949) and the Secondary Education Commission (1952–1953) to develop proposals to modernize India's education system. The Resolution on Scientific Policy was adopted by the government of India's first Prime Minister (Jawaharlal Nehru). The Nehru government sponsored the development of high-quality scientific education institutions such as the Indian Institute of Technology. In 1961, the Union government formed the National council of

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1 Researcher has used the government official education websites to prepare this section.
Educational Research and Training (NCERT) as an autonomous organization that would advise both the Union and state governments on formulating and implementing education policies.

2.2 First National Policy on Education in 1968

“The destiny of India is now being shaped in classrooms” In this way, education Commission (1964-66) has expressed the role of education in social and economical transformation of India. Based on the report and recommendations of the Education Commission (1964–1966), the government of Prime Minister Indira Gandhi announced the first National Policy on Education in 1968, which called for a "radical restructuring" and equalize educational opportunities in order to achieve national integration and greater cultural and economic development. The policy called for fulfilling compulsory education for all children up to the age of 14, as stipulated by the constitution of India, and the better training and qualification of teachers. The policy called for focus on learning of regional languages, outlining the “three language formula” to be implemented in secondary education - the instruction of the English Language, the official language of the state where the school was based, and Hindi, the national language. Language education was seen as essential to reduce the gulf between the intelligentsia and the masses. Although the decision to adopt Hindi as the national language had proven controversial, the policy called for use and learning of Hindi to be encouraged uniformly to promote a common language for all Indians. The policy also encouraged the teaching of the ancient Sanskrit language, which was considered an essential part of India's culture and heritage. The NPE of 1968 called for education spending to increase to six percent of the national income.

2.2.3 National Policy on Education in 1986

Having announced that a new policy was in development in January, 1985, the government of Prime Minister Rajiv Gandhi introduced a new National Policy on Education (NPE) in May, 1986. The new policy called for "special emphasis on the removal of disparities and to equalize educational opportunity," especially for Indian women, Scheduled Tribes (ST) and the Scheduled Caste (SC) communities. To achieve these, the policy called for expanding scholarships, adult education, recruiting more teachers from the SCs, incentives for poor families to send their children to school regularly, development of new institutions and providing housing and services. The NPE called for a "child-centered approach" in primary education, and launched
"Operation Blackboard" to improve primary schools nationwide. The policy expanded the Open University system with), Indira Gandhi National Open University (IGNOU) which had been created in 1985. The policy also called for the creation of the "rural university" model, based on the philosophy of Indian leader Mahatma Gandhi, to promote economic and social development at the grassroots level in rural India.

2.2.4 Operation Blackboard Programme-1987

Operation Blackboard is a centrally sponsored programme which was started in 1987 immediately after the Rajiv Gandhi NPE of 1986 was released to supply the bare minimum crucial facilities to all primary schools in the country. The objective of the scheme is providing students studying in primary settings with the necessary institutional equipment and instructional material to facilitate their education. There is a provision to provide salary for an additional teacher to those primary schools that have an enrolment of more 100 students for a consecutive period of two years. In the ninth five year plan the scheme was extended to all upper primary schools as well.

In attempt to improve the implementation of this scheme a few additional provision have been added. All teachers will be trained in using the materials provided by the scheme under a particularly designed teacher preparation programme. The state will provide for replacement of broken or non-functioning materials. At the local level, there will be some flexibility for purchasing additional items and teaching aids, which are applicable to the local situation. At least fifty percent of the teachers will be women, which in turn will affect the girl enrolment in school. School building will be designed according to local needs. The central government provides funds for school equipment and the buildings; the state government also raises funds through the Jawahar Rojgar Yojna scheme.

2.2.5 Modified Education Policy in 1992

envisaged conduct of a common entrance examination on all India basis for admission to professional and technical programmes in the country. For admission to Engineering and Architecture/Planning programmes, Government of India vide Resolution dated 18 October 2001 has laid down a Three – Exam Scheme: Joint Entrance Examinations (JEE) and All India Engineering Entrance Examinations (AIEEE) at the National Level and the State Level Engineering Entrance Examinations (SLEEE) for State Level Institutions – with an option to join AIEEE. This takes care of varying admission standards in these programmes and helps in maintenance of professional standards. This also solves problems of overlaps and reduces physical, mental and financial burden on students and their parents due to multiplicity of entrance examinations.

2.2.6 District Primary Education Programme-1994

The Centrally-Sponsored Scheme of District Primary Education Programme (DPEP) was launched in 1994 as a major initiative to revitalise the primary education system and to achieve the objective of universalisation of primary education. Under the Programme parameters, investment per district is limited to Rs. 40 crore over a project period of 5-7 years. There is a ceiling of 33.3 per cent on civil works component and 6 per cent on management cost. The remaining amount is required to be spent on quality improvement activities.

2.2.7 Mid Day Meal Scheme

In late 2001, the Indian Supreme Court directed all states to implement the Mid-Day Meal (MDM) Scheme by providing every child in every government and government assisted primary school with a prepared mid-day meal with a minimum content of 300 calories and 8-12 grams of protein each day of school for a minimum of 200 days. By 2006, the MDM scheme was near universal in all states, following public mobilization efforts to encourage states to act. This is a centrally funded scheme in that the central government provides grains, funds, transportation and also pays food preparation costs, though the state government is responsible for providing the physical infrastructure for cooking the meals. Though it is not yet free of problems of quality and corruption, the fact that mid-day meals have become a part of the daily routine in most primary schools across the country is a major achievement. (Khera, 2006). The scheme provides lunch to
about 120 million children every school day and, as such, is the largest school meal scheme in the world. Certain states have gone beyond the mandated scope of the scheme, for instance in Kerala and Tamil Nadu the destitute and the aged are allowed to take the MDM and in Gujarat the scheme covers children from Grades 1 to 7 rather than only in the primary grades (1 to 5).

2.2.8 Sarva Siksha Abhiyan

Indian Government programme aimed at the universalization of elementary education "in a time bound manner", as mandated by the 86th amendment to the Constitution of India making free and education to children of ages 6–14 years - a fundamental right. The programme was pioneered by Atal Bihari Vajpayee. Sarva Shiksha Abhiyan (SSA) is an effort to universalize elementary education by community-ownership of the school system.

It is in response to the demand for quality basic education all over the country. The SSA programme is also an attempt to provide an opportunity for improving human capabilities to all children, through provision of community-owned quality education in a Mission mode. SSA is being implemented in partnership with State Governments to cover the entire country and address the needs of 192 million children in 1.1 million habitations. The programme is looking to open new schools in those habitations which do not have schooling facilities and strengthen existing school infrastructure through provision of additional class rooms, toilets, drinking water, maintenance grant and school improvement grants. Existing schools with inadequate teacher strength are provided with additional teachers, while the capacity of existing teachers is being strengthened by extensive training, grants for developing teaching-learning materials and strengthening of the academic support structure at a cluster, block and district level. SSA provides interventions for out of school children, Research, Evaluation, Supervision and Monitoring; Management Cost; Learning Enhancement Programmes; Innovative activity for girls' education, early childhood care & education, interventions for children belonging to SC/ST, minority community, deprived children in urban areas and computer education specially for upper primary level; SSA seeks to provide quality elementary education including life skills. SSA has a special focus on girl's education and children with special needs. SSA also seeks to provide computer education to bridge the digital divide.
2.2.9 National Programme for Education of Girls at Elementary Education

The National Programme for Education of Girls at Elementary Level (NPEGEL), is a focused intervention of Government of India, to reach the “Hardest to Reach” girls, especially those not in school. Launched in July 2003, it is an important component of SSA, which provides additional support for enhancing girl’s education over and above the investments for girl’s education through normal SSA interventions. The programme provides for development of a “model school” in every cluster with more intense community mobilization and supervision of girls enrolment in schools. Gender sensitisation of teachers, development of gender-sensitive learning materials, provision of need-based incentives like escorts, stationery, workbooks and uniforms are some of the endeavors under the programme. The scheme is being implemented in Educationally Backward Blocks (EBBs) where the level of rural female literacy is less than the national average and the gender gap is above the national average; in blocks of districts which are not covered under EBBs but are having at least 5% SC/ST population and where SC/ST female literacy is below 10%; and also in select urban slums. About 3272 educationally backward blocks are covered under the Scheme in the 24 States of Assam, Andhra Pradesh, Arunachal Pradesh, Bihar, Chhattisgarh, Gujarat, Jharkhand, Haryana, Himachal Pradesh, Karnataka, Jammu & Kashmir, Madhya Pradesh, Maharashtra, Meghalaya, Mizoram, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand, West Bengal and one UT of Dadra & Nagar Haveli. Under NPEGEL, around 35,254 Model cluster schools have been opened, 25,537 ECCE (Early Childhood Care and Education) centres are being supported, 24,394 additional classrooms have been constructed, and 1.85 lakh teachers have been given training on gender sensitization, remedial teaching to 9.67 lakh girls, bridge course covering 1.53 lakh girls, including additional incentives like uniforms etc. to about 71.46 lakh girls (upto 31st December, 2007).

2.2.10 Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

Like Sarva Shiksha Abhiyan (SSA), the Department of School Education and Literacy of the Ministry of Human Resource Development (MHRD), Government of India has launched Rashtriya Madhyamik Shiksha Abhiyan (RMSA) since 2009-10 with an aim to achieve Universal Access and Quality Secondary Education to all the young persons of the age group 14-16 of the
country The scheme provides for opening new secondary schools within a distance of 5 kms. of every habitation and strengthening of existing schools by way of additional classrooms integrated science math labs, computer lab, art/craft/culture rooms, girls activity rooms, resources rooms, headmasters/Principals office rooms etc. Further teachers post are sanctioned to meet the student: teacher ratio of 1:30 and Classroom: Teacher ratio of 1:40. Additional Teachers are also sanctioned in the existing schools. The scheme also has a provision of training teachers in Government and Government aided secondary schools as well as for professional development of principals and headmasters of schools through leadership training.

2.2.11 Inclusive Education of the Disabled at Secondary stage

Inclusive Education of the Disabled at Secondary Stage (IEDSS)scheme is fully funded by Ministry of Human Resource Development. The Scheme of Integrated Education for the Disabled Children (IEDC) has been replaced by the scheme of Inclusive Education for the Disabled at Secondary Stage (IEDSS) with effect from 1.4.2009. The scheme of Integrated Education for the Disabled IEDC was meant to cover all classes in the school education stage. With the coverage of children with special needs in the elementary stage under Sarva Shiksha Abhiyan (SSA), the scheme of IEDC was replaced by IEDSS under which children with disability in the secondary stage (classes IX to XII) are covered. The objective of IEDSS is to enable the disabled children who have completed eight years of elementary education to continue their education at the secondary stage in an inclusive environment in regular schools. The scheme will cover all children of age 14+ passing out of elementary schools and studying in secondary stage in Government, local body and Government-aided schools, with one or more disabilities as defined under the Persons with Disabilities Act (1995) and the National Trust Act (1999) in the age group 14+ to 18+ (classes IX to XII), such as Blindness, Low vision, Leprosy cured, Hearing impairment, Locomotors disabilities, Mental retardation, Mental Illness, Autism, Cerebral Palsy, and may eventually cover Speech impairment, Learning Disabilities, etc.

2.2.12 Right to Education

The Right of Children to Free and Compulsory Education Act or Right to Education Act (RTE), which was passed by the Indian parliament on 4th August 2009, describes the modalities of the
provision of free and compulsory education for children between 6 and 14 in India under Article 21A of the Indian Constitution. India became one of 135 countries to make education a fundamental right of every child when the act came into force on 1 April 2010. The RTE 2009 has marked a historic moment for the children of India. The most important aspect, however, is to ensure that the teaching-learning process is free from stress and anxiety (Sec. 29), with obvious implications for curricular reform. Testing and school grading systems need to be reviewed to motivate children to deepen and widen their learning. The RTE Act also lays down the responsibilities of teachers. Teacher accountability systems would need to ensure that children are learning and that their right to learning in an environment that is free from stress and anxiety is not violated.

This Act serves as a building block to ensure that every child has his or her right (as an entitlement) to get a quality elementary education, and that the State, with the help of families and communities, fulfils this obligation. All children between the ages of 6 and 14 shall have the right to free and compulsory elementary education at a neighborhood school. There is no direct (school fees) or indirect cost (uniforms, textbooks, mid-day meals, transportation) to be borne by the child or the parents to obtain elementary education. The government will provide schooling free-of-cost until a child’s elementary education is completed.

2.2.13 Non Government Effort in Education

Involvement of Non Government Organization (NGO) in education-related work in India has grown rapidly. Their important contribution has been not only in grassroots educational work but also in terms of successful advocacy for education at the macro level by contributing to national educational debates and helping to make education access and quality prominent public issues. For instance, the role of the NGO Right to Food Campaign at both the micro and macro levels was critical in mobilizing public opinion and building pressure for the rapid implementation of the school Mid-Day-Meal scheme in Indian states. Similarly, Parham’s aim is to have every child in school and learning well, did pioneering work in testing the learning achievements of elementary school age children in all districts and producing a public report every year since 2005. This brought the whole issue of low learning levels and low schooling quality to the fore in public and media discussion in India and also encouraged greater openness in the government’s premier educational research institution. The field experiments in education are typically more
readily facilitated by educational NGOs on a small scale rather than by governments and, as such, provide invaluable opportunities to test the cost-effectiveness of particular educational interventions. They can thus inform education policy makers as to what types of educational innovations and policies give the retest impacts at lowest costs (Duflo et al., 2010). NGOs education activities also include delivering bridge courses that prepare children who dropped out of schooling earlier to re-join school; arranging for street children to settle with foster parents and attend schools; organizing learning camps for girl children and for working children; and many other activities.

2.2.14 Private School Education

Education in India has come a long way since conventional times, it can be noticed that education in India in 60’s or 70’s was not competent as it is now. Education fetches respect and finally money, but most of all it fetches information and knowledge that makes the brain come out of social obstacles. The quality of education and its determinants remain a topic of interest since the beginning of formal education. (Aggarwal, 2001).

Private Schools in India have mushroomed in the past decade, whether they can be effectively utilized to provide a viable alternative to public education? Education in India falls under the purview of both the central and the states government. The various articles of the Indian Constitution provide for education as a fundamental right. Although growth of private schooling in India is quite visible, even in rural areas, the contours of this change remain poorly understood because of the data limitations. The size of private education sector is greatly under-estimated in official published statistics particularly at the primary level due to exclusion of unrecognized schools, given that more than 50% of all private primary schools are unrecognized. Official statistics often tend to underestimate private school enrolment (Kingdon, 2007). In comparison with the extensive literature in other countries, research on public and private schools in India is still in infancy (Desai, 2008). However, studies in India have noted that government schools are more expensive than private schools with lower teacher accountability. However, because of poor quality and scarcity of public education, private education has become the necessity for India. According to some research, private schools often provide superior results at a fraction of the unit cost of government schools. (Kingdon 2007, Verma, 2007). However, others have
suggested that private schools, no more economical as compared to public schools. Contrary to this, a recent study conducted in 2009-10 in planned city - Navi Mumbai, Maharashtra having 431 schools, revealed that even though the education in public school is free in Navi Mumbai, a significant proportion of private schools accounted for 63% of total schools in Navi Mumbai whilst teachers and students in private school makeup of 85% and 87% of total respectively (Abbi 2011a). It has been pointed out that private schools cover the entire curriculum and offer extra-curricular activities such as science fairs, general knowledge, sports, music and drama. There is some disagreement over which system has better educated teachers. School privatization could be attributed to household prosperity, infrastructural advantage of the locality and poor quality of existing government schools. There is evidence that private schools are both effective in imparting learning and over all development of students.

As per Prathms ASER 2011, the findings suggest that more and more children are going to private schools. Nationally 25.6% children are going to private schools. In 2006, only 18.7% children were enrolled in these schools. Kerala and Manipur had more than 60% children going to private schools. Between 30% and 60% of children in rural areas of Haryana, UP, Nagaland, Meghalaya, Punjab, J&K, Rajasthan, Uttarakhand, Maharashtra and Andhra Pradesh were enrolled in private schools.

In both government and private schools, between 20% and 25% children attended paid tuition classes, but it was high in Orissa, Bihar and West Bengal. Kerala also has a high incidence of tuition. Private schools are often operating illegally. A 2001 study found that it takes 14 different licenses from four different authorities to open a private school in New Delhi and could take years if done legally (Verma, 2007). However, operation of unrecognized schools has been made illegal under the Right of Children to Free and Compulsory Education Act which has also significantly simplified the process of obtaining recognition.

2.2.15 Literacy Rate in India

Literacy in India is the key for socio-economic progress. Every ten years the literate population of India goes up by about 10%. During its independence, there were only 18% literate Indians, and as can be seen from Figure 2.1, there were 74% literate Indians, meaning that three fourth people were literate as per census 2011. Although this was a greater improvement, the level is
well below the world average literacy rate. Despite government programs, India's literacy rate increased only "sluggishly," as can be seen from figure 2.1. The provision of universal and compulsory education for all children in the age group of 6-14 was a national effort and had been given overriding priority by incorporating as a Directive policy in Article 45 of the Constitution. Parliament has passed the Constitution 86th Amendment Act, 2002, to make elementary education a Fundamental Right, for children in the age group of 6–14 years. In order to provide more funds for education, an education cess of 2 per cent has been imposed on all direct and indirect central taxes through the Finance (No. 2) Act, 2004 (Economic survey 2005).

The literacy rate grew from 18.33 per cent in 1951, to 28.30 per cent in 1961, 34.45 per cent in 1971, 43.57 per cent in 1981, 52.21 per cent in 1991, 64.84 per cent in 2001 and 74.04 per cent in 2011. During the same period, the population grew from 361 million to 1,210 million. The demographics of India are inclusive of the second most populous country in the world, with over 1.21 billion people (Census of India, 2011), more than a sixth of the world's population. Table 2.1 shows that there was a wide gap in literacy rate of rural and urban population. As per census 2011, the literacy rate of rural population is about 67% as compare to urban population (84%).

a) **Figure 2.1. Literacy Rate (%) in India as per 1901 to 2011 census**

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There was a wide gender disparity in the literacy rate in India: effective literacy rates (age 7 and above) in 2011 were 82.14% for men and 65.46% for women. (Table 2.1) The low female literacy rate has had a dramatically negative impact on family planning and population stabilization effort in India. Studies have indicated that female literacy is a strong predictor of the use of contraception among married Indian couples, even when women do not otherwise have economic independence. The census provided a positive indication that growth in female literacy rates (11.8%) was substantially faster than in male literacy rates (6.9%) in the 2001-2011 decadal period, which means the gender gap appears to be narrowing.

**Table 2.1 Literacy Rate in India by sex as per 2011 census**

<table>
<thead>
<tr>
<th>Category</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>78.57</td>
<td>58.75</td>
<td>68.91</td>
</tr>
<tr>
<td>Urban</td>
<td>89.67</td>
<td>79.92</td>
<td>84.98</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>82.14</strong></td>
<td><strong>65.46</strong></td>
<td><strong>74.04</strong></td>
</tr>
</tbody>
</table>

Source census 2011 also available at www.indiastat.com
2.2.16 Education in Maharashtra

In case of Maharashtra however, in 1984, the state government had transferred its responsibility for the administration of primary education to municipal areas (i.e. urban areas satisfying certain criteria of population, population density and occupational profile) upon the local governments. Following the 74th Amendment the state government of Maharashtra, the state government, amended its existing laws relating to the municipalities and devolved to local levels a number of responsibilities regarding economic planning and social justice. However, it is necessary to clarify the local level bodies do not enjoy the powers of a government, as they are not assigned any police powers. They are mainly local level institutions comprising elected representatives to identify, formulate, implement and monitor local development and welfare programmes (Juneja, 2001).

Education in Mumbai

The Education Department of Brihanmumbai Mahanagarpalika (Municipal Corporation of Greater Mumbai) control a huge administrative task to provide free primary schooling to the children of Mumbai, in eight medium of instruction. The teachers in municipal schools have a hard task than most in view of the fact the home environment of children are unable to provide education support. In a city of the size of Mumbai a large number of children are on their own and living on the streets. The circumstances of the life of these children in the city make it difficult to attend the school (Juneja, 2001).

![Figure 2.2 Education Department Set-up of BMC]

Figure 2.2 Education Department Set-up of BMC

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The administrative set-up for primary education in the city is given in Figure 2.1. Primary education is provided by several agencies in Mumbai. The municipal corporation of the city runs the largest (58%) number of schools. The other schools run under private management. Many of these schools are aided by the funds from Municipal Corporation. These schools are under an obligation to abide by the norms of Municipal Corporation on matters such as curricula, examination and free primary education etc. Private unaided schools (27%) are both owned and run privately by private management. These may be religious bodies, charitable trusts, private education foundations, industrial houses and companies. Some schools in the Mumbai are also run by the central government for the benefits of employees, especially those who are transferred from state to state. Many schools in Mumbai use shift system to optimize the use of school space and accommodate the demands for school seats for different medium of instructions.

b) Education in Navi Mumbai

The Schools in Navi Mumbai are public schools, or private schools. The primary schools under three types of management in Navi Mumbai are namely:

1. Zilha Parishad
2. Navi Mumbai Municipal Corporation and
3. Private Schools
i) **Role and responsibility of Zilha Parishad in Primary Education**

Zilha Parishad is a local government body at the district level in India. It is the third tier of Panchayati Raj System. It looks after the administration of the rural area of the district and its office is located at the district headquarters. The district headquarters (Raigadh District) for ZP schools is located in Alibaug.

**Constitution**

Members of the Zilha Parishad are elected from the district on the basis of adult franchise for a term of five years. Zilha Parishad has minimum of 50 and maximum of 75 members. There are seats reserved for Scheduled Castes, Scheduled Tribes, backward classes and women.

Councillors chosen by direct election from electoral divisions in the District and The Chairmen of all the Panchayat Samitis form the members of Zilha Parishad. The Parishad is headed by a President and a Vice-President.

**Administrative structure**

The Chief Executive Officer (CEO), who is an IAS officer, heads the administrative machinery of the Zilha Parishad. He is called District magistrate also. The CEO supervises the divisions of the Parishad and executes its development schemes.

**Functions**

Zilha Parishad provides essential services and facilities to the rural population and the planning and execution of the development programmes for the district. One of the major function is to set up and run schools in villages, execute programmes for adult literacy, run libraries. The main sources of income are taxes on water, pilgrimage, markets, etc. fixed grant from the State Government in proportion with the land revenue and money for works and schemes assigned to the Parishad.

ii) **Role and responsibility of Navi Mumbai Municipal Corporation in Education**

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4. [www.zpraigad.maharashtra.gov.in](http://www.zpraigad.maharashtra.gov.in) Retrieved 2012-17-09

The Navi Mumbai Municipal Corporation (NMMC) is responsible mainly for primary level of education in Thane district (urban area) in Navi Mumbai. The facilities and basic services such as, water supply, health, garbage disposal and general maintenance and development of city and buildings permission etc. are provided by NMMC. It has 62 reputed schools offering high standard education. Infrastructures for social activities have proved conducive to attract children from even lower income categories. Currently there are more than 23,000 students having about 500 teachers in NMMC schools (NMMC 2012). The administrative setup of education department of NMMC is given in Figure 2.3.

iii) Role of Private Schools in Navi Mumbai

Private schools are run by charitable trusts, religious institutions, education foundations or individuals. All private schools are affiliated either to the Maharashtra state Secondary School Certificate (SSC) board or the all-India Indian Certificate of Secondary Education (ICSE) and Central Board of Secondary Education (CBSE) boards. Demand is especially high for ICSE, CBSE affiliated schools and convents or missionary. There are 273 private schools in Navi Mumbai.

Figure 2.3 Education Department Setup of NMMC
Table 2.2 presents the distribution of private schools by board of syllabus. The bulk (88.3%) of schools had opted for Maharashtra State Board (MSB) syllabus. Only 7.7% and 4% of the private schools in Navi Mumbai are affiliated to CBSE and ICSE course curricula, respectively (CIDCO, 2010). Private schools have become a preferred option to a majority of city residents owing to better facilities and use of English as a medium of instruction. It has been observed that the demand for CBSE and ICSE course curricula is mainly from the parents/wards of children who had transferable jobs so that they do not face problem in admission of their children if they go out of Maharashtra state. Also, their syllabi may be useful for those planning to appear in competitive examinations conducted at all-India level and by other states.

Table 2.2 Distribution of Private Schools by Board of Syllabus
Some of the popular missionary schools in Navi Mumbai are such as St. Mary's school (CBSE) and (ICSE), St. Lawrence school, Fr. Agnel, St. Augustine’s School, Ryan International School. The other famous schools are Apeejay Education Society, Bal Bharti public school, Delhi Public school, D.A.V. (Dayanand Anglo-Vedic) Schools etc.

Most studies have focused on analyzing data such as enrolment, attendance, repetition, dropout rates, effect of government programme and policy in India. Other authors have studied the academic achievement of secondary and higher secondary students in mathematics, language and school factors or socio economic factors. This study aims to go beyond an analysis of those indicators. There are hardly such studies which have considered type of school management as one of the important factor along with school and socioeconomic factors affecting the academic achievements of students. The goal of this study is to identify and analyze the factors affecting the quality of primary education by type of school management. Quality of education is a cause of concern; therefore a detailed study to measure the performance of students studying in primary municipal / public and private schools has been undertaken in Navi Mumbai by the researcher. The aim of study is to assess quality of primary education by type of school management in Navi Mumbai- through applications of statistical models for causal analysis.

Therefore the focus of this study was on the school management environment, which encompasses the school infrastructure, teacher related factors and socio economic status of students. Issues related to school governance and management (comparison of private and public) as they affect the learning outcomes, are examined. Finally, this thesis makes recommendations on a few salient issues for improving the outcomes of primary education as influenced by the indicators focused on.