CHAPTER 2

REVIEW OF LITERATURE

This chapter presents a summary of some important empirical studies related with different dimensions of primary education. This chapter is divided into three parts- SECTION-A, SECTION-B and SECTION-C. SECTION-A scrutinizes the research studies undertaken to emphasize the variations in students' cognitive performances and the factors accounting for these variations over the world. SECTION-B examines the research studies conducted for understanding the inner-relationships of different aspects of primary education in India. SECTION-C indicates the research gap.

SECTION – A

2.1 Studies conducted abroad

In this section, we present in brief the works of the researchers on the identification of factors contributing the differences in the students' learning achievements across locations of the schools such as rural and urban, sex of the students such as male and female, school management such as private and public schools, and some other dimensions of child education, and upper class students' education as well.

Erich Gundlach and Ludger Wößmann (2001) in their study on Six East Asian Countries, based on SIMS, SISS, TIMSS focused on the measurement of changes in the efficiency of schooling in East Asia. The variables like- a) Expenditure on schools made by government, b) Student teacher ratio, c) Students' scores in standardized achievement tests in science and mathematics were used in the study. Baumol's cost-disease model was also used. The major findings of the above study are: 1) East Asian countries, apart from Philippines, have a true

raise of the cost of schooling. 2) There was not so much change in the quality of schooling output for all East Asian countries. Only Philippines was exceptional. 3) Pupil-teacher ratio increased in all countries except Philippines over the period of study. 4) In some countries like South Korea, Japan, Thailand, Singapore and Hong Kong, the productivity of the schools declined due to become larger in number of the schooling inputs.

J Dronkers and P Roberts (2003) in their study over 19 countries (OECD) based on PISA 2000 data threw light on the analysis of the effectiveness of schools which include private-unaided, private-aided and public schools. They applied multilevel modelling (MLM) using reading test score & mathematics test score as dependent variables and student's gender, student' age, education of the parents, family structure etc. as independent variables. Major findings of the above study are: 1) students' with low family background get admitted in the public schools, 2) Pupil teacher ratio in private schools is not adequate as compared to public school, 3) Students performance in private schools in mathematics and language subjects is better than that of public schools, 4) Private- unaided schools attract students of higher class creating a better environment in learning and teaching. Reasons behind higher score in reading and mathematical tests in private- unaided schools can be explained from the social viewpoint of these schools, 5) Demographical and Sociological data were explained and also hinted the advantages in scoring higher marks, 6) Students as well as parents' behaviour and attitude regarding school education were irrelevant in the discussion of the effectiveness of private schools, 7) Private schools having better environment than the public schools have superiority in high scoring.

Deon Filmer (2004) in his study on twenty one rural areas in poor countries on the basis of demographic and health surveys (DHS) 1990 tried to find out the relationship between the school enrolment and distance to primary school. Multivariate Analysis and Probit Model

were used. The variables like- a) Gender of the students, b) Student's age, c) Parental education etc. were used in the study. The findings of the study are: 1) Student enrolment is significantly negatively related to the distance to the nearest primary school, 2) The enrolment number is dependent to a greater extent upon the mean distance between the habitat of the students and the nearest elementary school, 3) The longer mean distance has a possible logical effect on enrolment whereas the effect of shorter mean distance varies, 4) In a small framework short distance to the nearest school is poorly related to enrolment, 5) universalization of primary education demands the quality of schooling and also infrastructure.

James Tooley, Pauline Dixon and Olanrewaju Olanyian (2005) conducted a study on Nigeria in 2003 on the basis of the survey of schools. Main objectives of their study were to examine- a) The nature and scope of private education and b) compare the infrastructure and inputs of private schools with those of public school. In this study, percentage analysis was applied and the variables used here were: a) Different school management : private and public schools, b) School infrastructure. Main findings of the study are as follows: 1) 75% of all students was enrolled in the private schools, 2) Govt. schools have higher PTR (1:27) than that of private schools (1:18), 3) Private unregistered schools were founded with temporary infrastructure, 4) In view of the infrastructure facilities except chairs, desks private registered schools were well equipped than the public schools, 5) Teachers of public schools remain more absent from school than those of the private schools, 6) The quality of teaching in private schools are much better than that in the private schools.

R. Khanam and R. Ross (2005) conducted a study in Bangladesh to assess the relationship between child work, on the one hand and school attendance and educational attainment, on the other. The dependent variables, such as a) school attendance, b) educational attainment

and the independent variables, such as a) household characteristics, b) student characteristics and c) parents characteristics were used in the study. Logit model was used as a tool. Data on these variables were collected with respect to boys (working and non-working) and girls (working and non-working). Main findings of the study are as follows: 1) 28% pupils who are engaged in work lag behind academically, 2) 88% working boys are not so interested in the school enrolment while 75% working girls are less interested to be enrolled. 3) Parental education along with income has greater influence on the school enrolment. 4) The education of mother has a marked effect on the school attainment of students compared to father's education. 5) the likelihood of school enrolment for younger boys and girls is positively influenced by the existence of primary schools in the locality.

J. Barrs (2005) made a study on rural Punjab in Pakistan on the basis of a) Secondary data: UNDP, Human Development Reports, and b) Primary Survey of Village Education Committees. The study focused on the influence of community organizations in respect of motivation of the teachers. This study used- a) Participatory approach and b) Interview method. The variables used here were: a) Motivation of teaching, b) Education quality c) Accountability and monitoring, and d) Village Education Communities. Some of the major findings of the study are: 1) Active local governance, good monitoring responsibility and efforts by Village education committee have positive impact on teachers' attendance and support them to overcome contractual obligation, 2) The community involvement has positive effect on teachers' morale, 3) The fact revealed that Village Education Community (VEC) could hardly contribute to enriching quality in teaching process. So it failed to impart good education by increasing quality of education.

David Newhouse and Kathleen Beegle (2005) performed a study on Indonesia during 1997 to 2000 using data collected from Family Life Survey. The major objectives of the study are

to evaluate - a) the impact of school management on the learning achievement of students in the Junior Secondary Schools and b) the comparative performance of different religious schools. In this study, achievement score of student was used as dependent variable and the independent variables were: a) management of schools and b) household characteristics. The main findings of the study are: 1) Pupils of the public school have the capability to perform better than the pupils of the private school if the situation in public school is suitable and disciplined. 2) Pupils of government and religious (non-muslim) private school did better performance than pupils of non- religious private school, 3) learners of the private madrasah are not of lower quality than the learners of the private schools.

Eric A. Hanushek, Victor Lavy, and Kohtaro Hitomi (2006) conducted a study in Egypt during 1978 to 1980 with the help of-- a) survey of primary schools (1998-99) and b) World Bank (1991). The objective of study was to evaluate the impact of school quality on decisions of students in developing countries to drop out of school. The techniques used here were: a) Probit model and b) Instrumental Variable estimates (IV). The variables used here were : dependent variables: a) Student achievement scores in reading and b) Achievement scores in mathematics; and independent variables: a) Qualifications of parents, b)Student's gender and c) Dropout rates. Major findings of the study are: 1) The quality of school is largely dependent on individual quality. The superior teaching quality of a school has tremendous effect on the pupils, 2) Better schools create more opportunity to flourish a student's ability in various fields. In such situations the students find interest to read in that school. A student in a lower quality school would surely be a dropout and 3) the quality of the urban primary schools is always 3-5 percent ahead of that of the rural primary schools.

Nazmul Chaudhury, Jeffrey Hammer, Michael Kremer, Karthik Muralidharan, and F. Halsey Rogers (2006) made a study across Bangladesh, Indonesia, Ecuador, India, Peru and Uganda during October 2002 to April 2003 on the basis of Survey of schools. The objective of this study was to measure the nature of teacher absenteeism in the rural areas of the above countries. The tools used here were: a) Hierarchical Linear Regression and b) OLS Regression. In this study, the independent variables were: a) Characteristics of teacher, b) Characteristics of School, and c) Characteristics of students. Some of the major findings of the study are: 1) If we look into attendance of the teachers, an average of 19 percent is absent across the countries. 2) The male teachers are more likely to be absent than their female counterparts, whereas the headmistresses or the headmasters are frequently absent when compared to the regular teachers. 3) It is found in all six countries that local teachers are rarely absent, 4) In the rural areas of India, Indonesia, Peru, the rate of absentee teachers are more than those in the urban areas, 5) The absence rate of teachers is sufficiently low in school where infrastructure facilities are better. 6) Teachers are not interested to take leave in a school where guardians of the students are educated and vigilant.

M. Aslam and G. Kingdon (2007) performed a study on school education (2002-2003) on the basis of school survey and students' achievement in Lahore. The main objectives of the study were: a) to examine relations between details of subject teachers and marks obtained by the students in the concerned subject, and b) To examine the impact of teaching learning process on students' achievement score. The methodology used here were: a) Pupil fixed effects, b) kernel density and c) OLS Regression. In this study the dependent variables were : a) Students' achievement scores in mathematics and b) achievement score in language and the independent variables were: a) Student's attributes, b) Teacher attributes, c) Family characteristics and d) School characteristics. The main findings of the study are: 1) A major portion of quality teachers believed to influence students' achievements and tried to interfere

in education. But these things have hardly any relation with pupil's standardized mark, 2) The student learning is substantially benefited by certain un-measured teaching procedure variables such as lesson planning, allowing student participation by conducting question answers sessions within the classrooms as well as Interrogating them on the past lessons,
3) It is also found that the teachers of government school are more effective in imparting lesson to the pupils with their cognitive skills, and 4) Female teachers are more fruitful in case of teaching girls students.

Mohammad Niaz Asadullah (2008) conducted a study on Bangladesh and Pakistan during 1999 to 2000 with the help of Household Survey. The study is dealt with the analysis of the differences of wage between private and government school graduates. The study used the techniques: a) Mincerian Function, b) OLS Regression, c) Oaxaca decomposition (1973). In this study, the dependent variable was Log of hourly and monthly wages and independent variables were: Student characteristics – a) gender, b) educational qualification, c) working experience, d) location, e) years of schooling and f) school management. The major findings are: 1) the graduate passed out from Private schools of Pakistan can earn more that the graduates of public school, 2) In the labour market of Pakistan, public school graduates earn less than the graduates of Private Secondary School, 3) So the performance of the private schools in Pakistan and Bangladesh be partially explained by differences in public policy towards private schools in these two countries.

Leslie Rutkowski and David Rutkowski (2009) performed a study across the 8 countries during 2003 on the basis of TIMSS. The major objective of the study is to evaluate the cross-country Science and Mathematics test score differences between private and government schools. The technique used here was Intra Class Correlations. The variables used here were: a) Educational systems, b) Books, c) Mathematics and science score, and d) Education of

parents. The major findings are: 1) In some countries like the Chile, the US and the Belgium, school differences is taken to explain differences in Mathematics achievements, 2) In the field of Mathematics and Science achievement, Private schools are far ahead. And again, the excellence of Private school depends on the achievement in Mathematics than in Science, 3) The results of private school differ owing to the educational system and process of evaluation, and 4) This study shows that Performance of higher private schools is not uniform

Deborah Wilson (2013) in his article entitled 'Successful leadership characteristics of elementary school leaders and the impact on consecutive student achievement' explored the impact of leadership characteristics on student achievement in Georgia. The purpose of the study was to find out whether there was a significant relationship between student achievement and select leadership characteristics at the elementary level. This research study used both quantitative and qualitative methods. The study reveals that the school climate, leadership style, team collaboration and shared leadership and decision making has significant relationship with student achievement.

Elizabeth Dhuey and Justin Smith (2014) pointed out in their article, "How School Principals Influence Student Learning" that the effect of principals on gains in primary test scores in North Carolina and estimate the SD of principals' value added to be 0.12 - 0.17. They estimate that a one SD improvement in principal quality can increase student performance by 0.289 - 0.408 SDs in mathematics and reading. They find that the match between principals and schools accounts for a significant amount of principals' value added and also find that replacing the current principal has little effect on non-test score school inputs and outcomes.

Kulsoom Saffarudin Sherani (2014) conducted a study in Afghanistan based on the Survey of government schools and private schools using questioner and structured interviews. The

objective of the study was to compare the different characteristics and scopes between government and private schools in Kabul city. The methodology used here was Percentage analysis. In this study, the variables used were: a) Management of school, and b) Teacher details .The major findings are : 1) the number of female teachers is greater than the male teachers in both type of schools, 2) Five out of five private schools are for the education of both sexes-male and female, whereas only one out of five schools is mixed under public management, 3) The salary of the teachers was determined by their educational degree and teaching experience in government schools whereas the salary was paid to the teacher consensually in private schools irrespective of qualification and teaching experience.

Abdallah Hussein El-Omari (2016) carried out a study in Jordan during 2013-14 on the basis of survey of schools. The major objective of the study was to identify the factors which influence the pupils' learning achievement scores in English Language. The research tools used here were Factor Analysis and ANOVA. In this study the variables were: a) attitudinal, b) social, c) socio-economic, and d) extracurricular factors. The major findings of the study are: 1) the teachers appointed in public schools have same educational qualification with respect to the teachers in private schools. 2) The students who had good parental academic background regarding English language achieved relatively better scores in English language. 3) The families who are economically and educationally sound were attracted by the sophisticated administration of the private schools. 4) Pupils coming from smaller families are reported to have a greater achievement in the learning of English Language in comparison to those pupils belonging to bigger families.

Dipak Bahadur Adhikari and Gita Nath Aryal (2018) conducted a study in Nepal to identify the factors responsible for the performance of the school. Drinking water, toilet

facilities, academic quality perceived by teachers and improvement in playground and sports materials etc. have the power to make improvement of the schools.

SECTION-B

2.2 Studies conducted in India

This section highlights the national studies that deal with the disparities of primary education. It has also thrown light on various aspects of differentials in learning achievements of students with regard to organisation and location of schools and caste and gender of students.

Geeta Gandhi Kingdon (1996) in the paper entitled "The Quality and Efficiency of Private and Public Education: A Case-Study of Urban India" pointed out the educational achievements and the relative efficiency of schools in different Private-Unaided, Private-Aided and Government management from the survey of 928 pupils of class VIII in 30 schools across different schools in urban areas of Lucknow district of Uttar Pradesh. The techniques used were – a) Lee-Heckman Selectivity Bias Correction, b) Ravens' Progressive Matrices Test, c) OLS Regression, d) unordered multinomial Logit. The dependent variables were- a) Students' cognitive skills (Mathematics and Reading), b) Innate ability test (RAVEN test) and the independent variables were- a) Child's age, b) educational aspiration, c) home study hours, d) private tuitions, e) number of books, f) number of siblings, g) travel time to school, h) gender, i) household wealth, j) caste, and k) religion. The major findings are : 1) Raven's test score which measures the innate ability of children is one of the most vibrant determinants of students' educational achievement scores in all three types of schools - Private Unaided, Private Aided and Government, 2) Students with higher ability significantly prefer private unaided schools to government schools, 3) The increase in parental income or household wealth produces the likelihood of attending a Private-Unaided school very strongly. On the other hand, it reduces the chances of attending Private Aided

and Government schools. 4) Student achievement is significantly influenced by Mother's education in years. 5) Child's age affects student achievement negatively in all types of schools - Private Unaided, Private Aided and Government. 6) Educational aspiration of the children have a positive influence on achievement in all types of schools- Private Unaided, Private Aided and Government 7) Boys' achievement are better than girls' achievement in all types of schools. 8) Low achievement score of a child induces parents to arrange for private tuitions.

Public Report on Basic Education in India (PROBE) (1999) presented a study in the rural areas of five north Indian states. It was the Survey of 1376 households and 236 schools (195 government & 41 private schools) in 234 randomly selected villages during the period September 1996 to December 1996 with the objective to present a real picture of the system of schooling as parents, students and teachers experience basic education in the northern states of India. The study was based on percentage analysis and the variables used were –a) School Infrastructure, b) School management, c) Pupil-Teacher Ratio, d) Gender and e) Parental views. Some of the major findings are: 1) usually parents always like to educate their children and always try to provide better education to the children and even they never give up struggling for the same. 2) Poor functioning of local government funded schools is the major cause of sending children to private schools. 3) Gender bias has also been found in private schools. 4) Teaching methods used in private and government schools are not very different. 5) The salary of private school teachers is less than one- fifth of the salary of a government school teacher. 6) The relationship between parents & teachers in private schools is more constructive. 7) The worst infrastructural facilities, abysmal Pupil-Teacher Ratio (PTR) and the most haphazard implementation of pupil incentive schemes were found in the state of Bihar. 8) Primary schools in the state of Rajasthan tend to have much better infrastructure. 9) In the state of Himachal Pradesh, it is reported that a wonderful progress in

the field of universal elementary education with the help of an ethical circle of public feedback as well as state initiatives.

Banerjee, Cole, Duflo, and Linden (2005) made a study on the 77 public schools in the urban slums of Mumbai and Vadodra during the period 2000 to 2003. The major objective of the study was to assess the quality of education with the introduction of Remedial Learning Program and CAL program to a targeted group of class III & class IV students. The descriptive statistics used in this study were –i) OLS, ii) Dummy Variables, iii) Bootstrap test. In this study, the dependent variable was post-test score and the independent variables were: i) Pre-test scores and ii) Balsakhi. Some of the major findings are: 1) Remedial Learning Program is a significantly effective program. 2) Computer Assisted Learning (CAL) program was effectual in increasing mathematics score. 3) Investment in school infrastructural resources only may not be enough to enhance student educational outcomes.

A.C. Mehta (2005) conducted a study in the seven districts of Punjab on the basis of DISE data. The objective of the study was the analysis of enrolment in schools (unrecognized) of Punjab and it was based on Percentage Analysis. The variables used were: i) number of schools (unrecognized) , ii) enrolments, iii) gender, iv) region, and v) medium of instruction. Some of the major findings are: 1) 24.83 percent of total schools are schools without recognition in which around 37.49 percent pupils are enrolled. 2) The majority of schools without recognition are running in the rural areas.

ASER (2005) presented a study from the survey of schools covering 485 districts of rural areas of 28 States and Union Territories in India. The study was conducted during the period November 2004 to December 2004 to evaluate the schooling status of children and basic level of education at national and state levels. It was a percentage based analysis and the variables used were: a) Student enrolment, b) Gender, c) Type of School, d) Out of school

children & e) Learning Levels of students in Reading and Arithmetic. The major findings were: 1) On an average, 93.4 per cent of students belonging to the age group of six to fourteen years have been enrolled in schools, out of which about 75.1 per cent students have got themselves enrolled in the public schools and around 16.3 percent students in the private schools. 2) 1.2 Crore children are out of school. 3) However, unfortunately the percentage of the boy pupils to the girl pupils have been altered in the private schools inclined towards the former. 4) About sixty per cent of pupils belonging to the age group of 7 to 14 years group have no ability to read a simple passage of Class II level difficulty. 5) The arithmetic performance among pupils is poor irrespective of class and types of school.

J.N. Retnakumar and P. Ariokyiasamy (2006) conducted a study in Kerala for which data was collected during the period 1996 to 2001. It was an informal discussion with parents to investigate the expansion of private schools in Kerala and decrease of enrolment in public schools. It was a percentage based analysis and the variables used were: a) Total enrolment, b) Number of schools, c) Fertility rate and d) Mortality rate. Some of the major results are : 1) decline in the teaching quality in the public schools and fall in the fertility rate results in the decrease of the enrolment in the public schools. 2) The students in public schools can be sustained if and only if the quality of education was improved.

K. Muralidharan and M, Kremer (2006) investigated the widespread presence of private schools, their infrastructure facilities and their teacher characteristics in comparison with in the public schools in India. In this study, descriptive statistics used was OLS Regression and the dependent variable was private school existence and the independent variables were: a) village population, b) Pupil-Teacher Ratio in public schools, c) average level of teacher absence, d) per capita GDP, and e) average per capita consumption. Some of the major results are: 1) Rural private schools are few in richer states. 2) A higher rate of absence of school teachers in the village government schools are more likely to give a chance to growth of

private schools in the villages. 3) The Pupil Teacher Ratio (PTR) of a government funded school is around 2.85 times more than that of a private school belonging to the same village. 4) The salary of a teacher of private school is however one fifth times the salary of a teacher in public school. 5) The infrastructure facilities in rural private schools have poorer than the public schools. 6) 30 % students in government funded schools belong to first generation. On the other hand, it is 20% in private schools.

Santosh Mehrotra (2006) made a study on school education in eight states in India during the period 1999 to 2000. Data from- a) NSSO (1995-96), b) UNICEF (1999) and c) UNDP (2004) were used. It was a descriptive study and the variables used were: a) School management, b) Infrastructure of school, c) Pupil-Teacher ratio, d) Salary & Training of the teacher, and e) classroom teacher ratio. Some of the major findings are: 1) Private schools have flourished in those states where public school is dysfunctional. 2) Facilities are better in private schools, particularly in respect of toilet and drinking water. 3) The public schools have a higher pupil-teacher ratio in comparison to the private schools.

S. Bhalotra and B. Zamora (2006) conducted a study in the years 1992-93 and 1998-99 using the data collected from National Family Health Survey (NFHS) of India to illustrate the growth of students' enrolment .The study considered both indicators, namely, the elementary school attendance of the children as well as the elementary school completion rate. The major finding is: there is a minor positive change in growth of students' enrolment between 1992-93 and 1998-99.

Geeta Gandhi Kingdon (2007) conducted a study in India on the basis of data obtained from –a) NCERT, b) NFHS, c) UNESCO, d) World Bank, and e) ASER. The main objective of the study was to evaluate accessing of schools in terms of enrolment and quality of schools in terms of educational achievements. The study was a discussion paper and the variables used

were: a) literacy rates, b) enrolment rates, c) learning achievement levels, and d) types of school. Some of the major findings were: 1) Students' learning achievement scores are very low and absenteeism of the teacher is comparatively high in the public schools. 2) In terms of educational achievement, India performs well in comparison to Pakistan as well as Bangladesh, but fall behind the BRIC nations.

S. Goyel (2007) made a study on educational achievement in Orissa. Data were collected from the survey of eight districts and DISE 2004-2005 to threw light on the reasons of educational achievements of pupils of Class IV & Class V in Mathematics and language in public and private schools. The OLS Regression was applied in the study and the dependent variables: a) pupils score in reading skill, b) pupils score in word meaning and c) pupils score in mathematics, and the independent variables: a) type of school, b) gender, c) age , d) social group, e) qualification of the parents, f) salary of the teacher , g) household asset score , h) teachers' qualification and experience , & i) Pupil-Teacher Ratio were used in the study. The major findings of the study are: 1) the educational levels of the public school pupils were almost thoroughly low. On an average, the female students scored about 2-4% points which are found to be quite lower when compared to their male counterparts in both the tests. 2) Social groups, qualifications of the teachers, family wealth as well as mother's literacy have noteworthy but smaller effects on test results. 3) Multi-grade classrooms along with higher Pupil-Teacher Ratio are often found to have negative effects on the scores of pupils.

J. Tooley and P. Dixon (2007) made a study on slums of Delhi on the basis of survey of schools to investigate the characteristics and the intensity of private schools. The descriptive statistics- Chi- Square was used and the variables used were: a) enrolment, b) types of management, c) Pupil-Teacher Ratio, d) teacher absenteeism, e) gender, and f) school inputs. The Main findings of the study are: 1) there were a total of 265 schools, out of which 26.8 %

of the schools were public schools, 7.2 % of the schools were private aided schools, whereas 66 % of the schools were private unaided schools. Among private schools about 27 % of schools were unrecognised. 2) A higher percentage of female students as compared to the male students were found in schools. Nevertheless, a higher number of girl pupils in the public schools were reported in comparison to their male counterparts. 3) A very low percentage (about 38%) of teachers was teaching in the public schools. 5) the absenteeism rate of the teachers was lower in private schools.

N. Bajpai, R.H. Dholakia and J. D. Sachs (2008) made a study in Karnataka & Andhra Pradesh during the period June 2007 to July 2007 on the survey of households and schools in two districts and DISE data (2005-06) to estimate the efforts needed to scale up primary education. The study was based on Percentage Analysis and the variables–a) infrastructure, b) distance to school, c) salary, d) incentives, and e) school enrolment etc. were used in the study. The major findings of the study were as follows: 1) the states of Karnataka and Andhra Pradesh do not seem to have a serious inadequacy with regard to the physical facilities as well as their accessibility to the general public. The problem, however, lies in improving the services provided in the public schools in terms of quality. 2) In both, Karnataka as well as Andhra Pradesh, the private schools' size was found to be almost double the public schools' size with reference to the enrolment number. 3) A higher shortage of teachers has been reported in the public schools with respect to the total number of pupils.

S. Goyel and P. Pandey (2009) conducted a study in Madhya Pradesh and Uttar Pradesh using the data collected from the survey of public and private schools to search for the systematic differences in educational levels among pupils in public and private schools in mathematics and language. Data analysis was done with the use of OLS Model and the variables like pupils score in mathematics and language, pupils related characteristics,

Teacher related characteristic, and School related characteristics were used. The major findings of the study are as follows: 1) the average achievement test scores of pupils in both the subjects, Language and Mathematics are lower in both states-Uttar Pradesh as well as Madhya Pradesh. 2) There is a higher degree of flexibility in the achievement test scores within the confines of and between the public schools as well as the private schools. 3) While comparing the average achievement test scores, the private schools lie at an advantageous position in both the states. However, the pupil as well as the school related characteristics leads the advantage to vary by state, school type as well as class grade. 4) The private unrecognised schools often outshine the private recognised schools.

J. Huisman, Uma Rani, and J. Smits (2010) conducted a study in India on the intensity of educational participation. Data were obtained from NFHS-2. The research question of the study was to search the factors (i.e. Socio-economic, infrastructural and cultural) responsible for educational participation .The data were analysed with the help of logistic regression models (bivariate and multivariate). Multilevel versions of the logistic regression models were applied. The major finding of the study is as follows: about 70 % of the variation in educational participation was due to factors at the household level. Socio-economic resources are the most important among the household-level factors. If the household is rich, if the parents are more educated, or if household possess more agricultural land, the probability of children being in school is substantially increased.

Z. Husain (2010) made his study on the basis of NSSO 61st round data to find out gender differences in likelihood of finishing school education across different zones in India. Disparity index, Descriptive Analysis, Logit model and Fairlie decomposition were used in this study. The variables- a) probability of finishing school, b) gender, c) age cohorts, d) household type, e) household size, f) monthly expenditure etc. were used. Some of the

findings of the study are: 1) At the National level, a child hailing from the Northern part of India tends to have a higher prospect of finishing school when compared to a child from the South or the East. 2) The chances of girl pupils finishing schooling is 0.11 where as it is 0.20 for a boy. 3) In spite of having socio economic control, gender disparities are still prevalent. In Eastern India and Northern states of India, disparity is more frequented. 4) Students belonging to so called upper caste are privileged than the Muslim students.

Jyotsna Jalan and Jharna Panda (2010) conducted a study on quality of primary education in West Bengal. The study reported the low quality of learning achievements among Class IV students in primary schools in rural West Bengal and a selected area of Jharkhand.

Sunita Chugh (2010) conducted a study in Mizoram, Himachal Pradesh and Kerala with the help of data obtained from NSSO 61st Round and DISE Flash Statistics. The major objective of the study was to evaluate the improvement of primary education in these three states. It was a Discussion Paper and the variables used were**:** a) Literacy rates, b) Out of school students, c) Student enrolments and d) Type of schools. Some of the findings of the study are: 1) Mizoram, Himachal Pradesh & Kerala have literacy rate above the Indian average. 2) the ratio of out of school students in these three states- Mizoram, Himachal Pradesh & Kerala has reduced considerably over the years. 3) Kerala has almost accomplished universalization of education and Mizoram and Himachal Pradesh have high GER. 4) Government initiatives in Himachal Pradesh and Christian missionaries in Kerala and Mizoram played notable role in spreading education among mass people. 5) The highest percentage of private schools is present in Kerala. On the other hand, Government is the principal supplier of primary education in Himachal Pradesh and Mizoram. 6) However, educational achievements are still not gratifying.

PROBE Revisited (2011) presented a study on schooling system in rural areas of six states in India. The survey was conducted in 2006 and data were collected from 1586 households in 276 villages. The main objective of the study was to describe a real picture of the schooling system as parents, students and teacher experience the schools in the northern states. This was a percentage analysis and the variables used were: a) School Infrastructure, b) School Management, c) Pupil Teacher Ratio, d) Gender and e) parental views. Some of the major findings are: 1) School enrolment of students has increased sharply during the period from 1996 to 2006. But classroom activities have not improved at all. 2) Rote learning without thinking still leads in the schools under study. 3) 80% students of class IV or V had the ability to do simple addition and only 60% had the ability to do simple subtraction. Hardly, 50% of the students had the ability of single digit multiplication. 4) Only 37 % of students enrolled in class IV or V can read with fluency.

A. Mehra, U. Bali, and N. Arora, (2012) conducted a study using the data obtained from Annual Status of Education Report (ASER), 2010 to investigate the interregional discrepancies in the quality of elementary education in India. In this study-Quality of Teaching Index, (ii) School Infrastructure Index and (iii) Learning Achievement Index -has been constructed. The study observed that Kerala is the highest scorer in quality indices and the states like Bihar, Jharkhand, and Assam are at the bottom.

S. Sikdar and A.N. Mukherjee (2012) made a study on elementary education in India to find the causes behind the inability of enrolment and for dropout among the students of primary stage. Data were collected for this study from all India and NSSO 64th Round Survey. The analysis was based on percentage basis and the variables used were: a) Enrolment, and b) Reasons for dropout. The main findings are: 1) About 15 per cent of the students are enrolled but currently not attending primary schools and out of them, 11 per cent

have never show up in the schools. 2) Quality is the prime cause for dropout. 3) 53 per cent of not enrolled students are doing so because of household situations and 20.3 per cent of not enrolled students are doing so because of their financial constraints.

K. Muralidharan and V. Sundaraman (2013) conducted a study on school education in Andhra Pradesh. Data were collected from 500 public schools and ASER (2008) to assess the effect of a teacher incentive programme on achievement test score of the students. Regression Analysis was applied for data analysis and the variables like achievement test score of the students in mathematics and language, school controls, parental education, incentive schools etc. were used in the study. The major findings of the study are: 1) The performance of pupils in incentive schools is notably better when compared to the performance of the pupils in control schools. 2) However, incentive schools perform notably better on both components of the test, the mechanical as well as the conceptual. The pupils belonging to these schools achieves better not only in both the subjects, Mathematics as well as Language, but also in other subjects like Science as Social Studies as well.

R. Banerjee, S. Bhattacharjea, and W. Wadhwa (2013) conducted a study by using ASER (2006-2011) data. It was the primary survey of village schools in India. The research questions in this study were about: i) trends in private schooling and ii) educational inputs like tuitions. The major finding is that at children's' learning levels, the situation is far from satisfactory. Thus, the suggestions are given to help children for enhancing educational outcomes. One, the challenge is to think of how schools, whether private or government, can be organised differently so that children can be taught from the today's level .Two, one should ponder upon amalgamating as well as augmenting the effects of supplemental aids that students need as well as they get.

Sudha Narayanan (2013) conducted a study to evaluate primary school choice in north India by using data collected from a survey of schools and 1586 households in 274 villages and the variables used were: a) School management, b) Parental income and c) School characteristics. The major finding is: parents value the services and quality of being functional of the chosen school.

ASER (2014) presented a study on Indian education using data collected from the survey of schools in 577 districts in 2013. The objective of the study was to evaluate students' schooling status and basic educational levels at national and state levels. The study was based on percentage analysis and the variables used were: a) student enrolment, b) gender, c) type of School, d) out of School students, and e) educational levels in Arithmetic and Reading. Some of the major findings were: 1) For the six to fourteen years old students, enrolment levels of the students are above 96 %. 2) On the days of survey, 71.4 % of enrolled students are present in primary schools. 3) Improvement was visible in the schools in respect of playground, kitchen sheds, office, boundary walls etc.

R. Mukhopadhyay and D. Chatterjee (2014) conducted a study on educational achievement levels at the elementary stage in rural West Bengal. The study was based on cross-district ability of making simple calculation and reading. Simple statistical tools had been used for data analysis. The study identifies: 1) the high and low performing districts and their performances over the years and 2) the retrogression of the quality parameter over the years.

B. B. Malik (2015) conducted a survey on the areas of slums and villages of Lucknow to propagate the appropriate utilization of the RTE Act. It was a percentage based analysis and the variables used were: a) Student related characteristics, b) School infrastructure, c) Pupil-Teacher Ratio, and d) RTE Act. Some of the major findings are: 1) In most schools,

Classrooms had insufficient infrastructure facilities that commanded under RTE Act. 2) 44 % of institutions had no independent toilet facilities for girl students and in addition, 83.75 % of the institutions, toilets were closed. 3) 20 per cent of teachers performed regularly, 52 per cent of teachers performed not regularly and 15 per cent did not perform at all. 4) 96.35 % of children studying in class I was from backward communities. 5) Levels of consciousness about the Right to Education Act were quite disgraceful.

M. Dev (2016) conducted a study to investigate the relationship of home environment, students' mental ability skill and interest with the students' academic achievement. The study was based on Primary survey in Delhi (2015) and the statistics used were: a) Pearson Moment Correlation and b) T-test statistics. Some of the main findings are: 1) Home environment of the children was positively correlated with their academic achievement scores. 2) Interest of the children was positively correlated with their academic performance indicating that high score in achievement test showed high level of interest of the children towards their the studies.

Swati Dutta (2017) in her article entitled 'Educational Inequality in India – Evidence from71st NSSO Round' examined the pattern of educational attainment and inequality across Indian states in terms of gender, religious groups and social groups. The study used- a) Educational Gini Index b) Educational concentration index and c) Decomposition of inequality to measure educational inequality. The major findings of the study are: 1) There is a spatial disparity in terms of school attainment. 2) The gender gap in literacy rate is highest among the STs and it is more severe in rural areas. 3) There is strong correlation between inequality across economic classes and inequality across socially identified groups. 4) There exists negative correlation between inequality index values and average years of education. 5) Inequalities in education due to social caste are higher in rural areas.

Benjamin Alcott and Pauline Rose (2017) conducted a study in India to measure disparities in learning levels which was changing over the primary school cycle using a large-scale household survey data from the five consecutive ASER surveys conducted between 2009 and 2013. The study was based on percentage analysis and the variables used were: a) household income, and b) parental schooling. Some of the major findings are: 1) the education of the parents and household income rush noticeable gaps in learning .2) Gender gaps also increased among the poorest. 3) Household income outweighs among the factors. 4) The study highlighted the importance of tackling drawback associated with poverty and avoiding its effects on education becoming entrenched.

Abhijit Ghosh (2018) studied on enrolment and dropout in schools in India using data collected from the NSSO 71st round to trace the causes. The Multinomial Logistic Regression (MLR) model has been used and some clear insights emerge from the study: a) financial constraints and quality of education dominate the reasons for the never-enrolled and dropout b) STs and Muslims continue to be deprived in regard to completion of school education.

R. Govinda and M. Bandyopadhay (2019) presented a study in India in their article entitled "Exclusion and inequality in Indian education" pointed out the "regular attendance, retention and satisfactory completion of primary schooling are still major problems even in some advanced states. Careful analysis of data by region, religion, caste, economic background and gender reveal that disparities have not reduced to acceptable levels."

Kamalpreet Kaur Toor and Jiwanjot Kaur Toor (2020) conducted a study to find out the peak age of school dropouts in Punjab, and also to identify the causes of school exclusion. An analysis of Combined Effect Time Dependent (CETD) matrix was used in this study. The major findings of the study are: 1) The age-group of maximum dropouts is 9-11 years. 2)

Students have viewed combination of multifarious psychological, home based and economic factors as the most determinant factors for exclusion from formal schooling.

SECTION – C

2.3 Research Gap:

- From the survey of literature, we see that very few empirical works on the determinants of enrolment of the students in the schools and the learning achievement scores of the primary school students has been done in India, particularly in West Bengal, up till now. Multidimensional aspects of primary education involving the differences in the enrolment and learning achievement scores between male and female students, students of schools located in urban and rural areas, and the students belonging to general castes and non-general castes- have not yet received due attention of the researchers, though a few works have been made in different states by the researchers.

- Most of the research studies are based on secondary data; very few are based on primary data. To fill up these gaps, we have made a study on the present status of the primary schools, made an attempt to identify the factor influencing the enrolment of the students, and their learning achievement scores. Besides indentifying the factors, the relative importance of these factors is also measured in our study.