## CHAPTER-II: REVIEW OF RELATED LITERATURE

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2.1. Introduction

Review of related research studies provides a comprehensive understanding about what is known about a topic. It forms the basis for subscribing rationale for having chosen the problem for the study. Since effective research is based upon past knowledge, the review of research studies helps to eliminate the duplication of what has been done. It is a valuable guide to defining the problem, recognising its significance, suggesting promising data gathering devices, appropriate study design and sources of data.

Review of related research studies or school effectiveness and learning achievement has brought to light a limited number of studies on this problem in India and a plenty of studies from abroad. In this chapter, an attempt has been made to present the related studies under the following heads:

2.2. Studies on School Effectiveness in India
2.2.1. Studies on School Effectiveness related to Physical, Curricular and Administrative Factors
2.2.2. Studies on School Effectiveness related to Factors other than Physical, Curricular and Administrative Factors

2.3. Studies on Learning Achievement in India
2.3.1. Studies on Learning Achievement related to Physical, Curricular and Administrative Factors
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2.4. Studies on School Effectiveness in Foreign Countries

2.4.1. Studies on School Effectiveness related to Physical, Curricular And Administrative Factors

2.4.2. Studies on School Effectiveness related to Factors other than Physical, Curricular and Administrative Factors

2.5. Studies on Learning Achievement in Foreign Countries

2.5.1. Studies on Learning Achievement related to Physical, Curricular and Administrative Factors

2.5.2. Studies on Learning Achievement related to Factors other than Physical, Curricular and Administrative Factors

2.6. An Overview of the Research Work Reviewed

2.2. Studies on School Effectiveness in India

It has been found from the review of related research that School Effectiveness studies related to Physical, Curricular and Administrative Factors as well as other factors have been conducted in India.

2.2.1. Studies on School Effectiveness related to Physical, Curricular and Administrative Factors

Buch and Sudame (1990) conducted an indepth study of the status of primary education in selected urban areas in Gujarat.

It was found that there was shortage of space in schools irrespective of their management. There were schools located in areas prone to noise pollution and unhealthy surroundings, frequented by anti-social elements, conducted in rented buildings, lacking toilet facilities, libraries and laboratories. These conditions were not congenial to learning. It was also found that the only one favourable condition among the schools was provision for drinking water.

The study of Ezekiel, N. (1996) was on “Teacher Participation in School Administration in Greater Bombay”. The main purpose of his investigation was to
ascertain conditions and describe situations conducive to effective participation by teachers in administration. The sample of this study consisted of 720 teachers with a minimum teaching experience of five years and 304 administrators with a minimum experience of one year taken from 120 selected schools. A questionnaire was prepared and used for the purpose.

The investigation found that i) democracy in administration has been advocated for the past twenty years and there are evidences of a change in the direction ii) all the phases of administration did not lend themselves to participation iii) matters of large general concern usually occupy the centre of attention of such co-operation and such group participation.

Kerawalla, G.J and Shefali Pandya (1994) conducted a study on “Students academic performance as a function of School ethos”. The objective of the study was to ascertain whether the schools ethos influences the academic achievement of the students, and if so, which aspects of schooling namely, inputs of the process, make a relatively greater influence on the school effectiveness. Data were collected with the help of school inputs inventory, a personal data sheet of teachers, Thampan’s (1987) scale to measure teachers’ attitude towards teaching profession and school process description scale.

The study revealed that schools were effective in facilitating the academic achievement of the students through their ethos. This effectiveness arose due to the processes going on in the school rather than the inputs into the schools. The study has also revealed that socio-economic status of the students also influenced the relationship between academic achievement, school input and perceived school processes.

“A study of School Ethos and School Effectiveness: A causal model” by Kerawalla, G.J. and Pandya, S.R. (1996) had the objective to ascertain the extent of the impact of school ethos on students’ academic achievement. The sample
consisted of 982 students (535 male and 447 female) and 109 teachers (27 male and 82 female) from 18 secondary schools of Great Bombay with English as the medium of instruction. The tools used in the study were: (a) school inputs inventory to collect information on school-related inputs from the schools, (b) school process description scale to measure students' perceptions of the school processes, (c) Thampan’s attitude to the teaching profession scale for teachers and (d) Kalliath’s SES inventory.

The study disclosed that there must be i) the improvement of conditions and amenities at home ii) the improvement of inputs into the school system-both material and human and iii) the improvement of curricular activities in the school and making the school atmosphere congenial so as to bring about desirable changes in the academic achievement of students.

The investigation of Pakkiam, M. (1990) was about the “Implementation of Operation Blackboard Scheme in Sakkottai Panchayat Union, TamilNadu.

It was discovered that 83% of primary schools did not have adequate physical facilities and that the materials supplied through the Operation Blackboard Scheme were utilised to a greater extent in addition to classroom teaching materials i.e. primary science kit, library books and classroom equipment by private school teachers than their counterparts in Government schools.

The study of Panda, B.N. (1997) was: “Activity-based teaching-cum-evaluation. A strategy for pupil achievement”. The main objectives of the study were (i) to study the effect of activity-based teaching-cum-evaluation strategy on attainment of mathematical concepts of class I pupils (ii) to compare the effect of activity-based teaching Vs. traditional method on achievement of mathematical concepts and (iii) to find out the effect of activity-based teaching-cum-evaluation strategy on retention of mathematical concept by children. The sample for the study was taken from the EDPM School of Bhubaneswar city in Orissa. All class I
students (20 in each session) studying in the 1993-94 and 1994-95 academic sessions were considered for the study. For measuring the learning outcome five criterion referenced unit test (with group A and B) along with a overall criterion referenced test were developed by the investigator using the text-book prescribed for class I.

The major findings were: (i) The learning achievement of experimental group differ significantly from control group in every unit as well as in overall achievement performance. It was also noticed that in the experimental group mastery learning has been attained by more than 85 percent children in all the units as well as in overall achievement than the control group (ii) It was found that activity-based teaching-cum-evaluation strategy was a better approach than the traditional method in developing mathematical concept (iii) The students of experimental group had better retention of learning materials than their counterparts.

Pradhan, N. and Mistry, M.V. (1996) conducted a study on "Teaching-learning process in schools with consistently good or poor results". The objectives of the study were: (i) to study the adequacy of infrastructural facilities available and utilised by teacher of good result school and poor result school (ii) to study the methods of teaching followed by teacher in good result school and poor result school (iii) to study the nature of student-teacher interactions existing in good result school and poor result school and (iv) to study the factors that differentiate between a good result school and poor result school. Case study method was followed to conduct this study. A comprehensive list of 138 Baroda municipal corporation primary schools were listed with the rate of retention and V standard school result. Unstructured interviews were conducted with the teachers, principals, students and peons.

The findings of his study were: (i) Good result school (80% retention rate and more than 30% students passing in V Standard) teachers have subject mastery
and did pre-teaching activities but poor result school teachers (20% retention rate and less than 40% passing at V Standard) did not have subject mastery and did not do any pre-teaching activities (ii) Teachers of good result schools follow student centred methods of teaching and encourage students’ questions and participation but the teachers of poor result school mainly follow teacher-centred methods and discourage students’ questions and participation during teaching (iii) There existed healthy interaction among students-teachers, students-students, and teachers-teachers in good result schools, but in poor result schools, the interaction among the students and teachers was not very congenial. The teachers had always some other work to attend to than teaching. They did not stay in the school for the whole day (iv) It was found that the good result school was located in an educated community but poor result school was located in uneducated community and mainly attracted students from the slum areas. Further, the good result schools had good building and adequate infrastructure but poor result schools did not have good building facility, drinking water, electricity and lavatory facilities (v) The principal of a good result school was B.A., B.Ed., and possessed dynamic leadership quality. The principal of poor result school was S.S.C passed with P.T.C. He was there in the school since the last twelve years and was a resident of that area. He lacked dynamism and was not solely devoted to the improvement of the school and (vi) the factors that differentiated a good result school from a poor result school were the method of instruction followed by the teachers, teachers’ ability, willingness, devotion to help the children and the infrastructure facilities available to the school. However, if the principal was dynamic and able, he could make the school a good result school.

Rajakutty, S. (1995) in his study on “The case of operation blackboard programme in India” focussed on assessing the awareness of the community and reactions of teachers to suggest steps for improvement of Operation Blackboard (OB) programme in Tamilnadu, Andhra pradesh and Madhyapradesh. Selected
states were divided into historical and administrative regions and 370 schools were then identified for the present study. Group interviews, survey schedules, study of official records and discussion with project team comprised the sources of data.

The findings of the study were: (i) Community participation was reported to be the most significant factor in improving school performance (ii) the teaching learning materials had reached all identified schools but the teachers did not use these materials (iii) The inclination and commitment of the teacher were more important in improving the performance at primary schools particularly in rural areas.

Varghese, N.V. (1995) in his work on “School facilities and learner achievement: Towards a methodology of analysing school facilities in India” had the following objectives: (i) to develop a methodology to empirically analyse and categorise primary schools in India in terms of infrastructure facilities (ii) to help to develop intervention strategies for school improvement. The sample schools for the empirical analysis in this study were drawn from five localities which vary in terms of levels of development. They were: (i) a developed urban locality (ii) a semi-urban locality (iii) a developed rural locality (iv) less developed rural locality and (v) least developed and tribal locality. The methodology began with considering 15 variables as in the school observation schedule to categorise a school. Schools were distributed through the process of cluster analysis, based on the availability of their facilities in each of the sampled schools; cross tabulation and correlation analysis were done to find out the inter linkages between these variables; those critical variables, which could be used to categorise schools in terms of infrastructure facilities, were identified through an interactive process using the statistical techniques of cross tabulation and correlation analysis.

The work resulted in: (i) identification of variables namely (a) school building (b) separate classrooms and (c) student benches (ii) Categorisation of schools as a) lowest level schools where there were no building, no separate
classroom and no student benches b) poor facility schools which had buildings with one or two rooms and many of which did not have usable blackboards c) good facility schools with building and separate classrooms but no student benches representing minimum facility in terms of space d) very good facility schools with building, separate classrooms and student benches representing the best equipped schools in the sample. Invariably all the schools in this category had student desks, blackboards in all classrooms, school library, electricity and fans and e) positive association existed between learner achievement in Hindi and Mathematics and school facilities.

2.2.2. Studies on School Effectiveness related to Factors other than Physical, Curricular and Administrative Factors

Jayantilal, J. Rana (1992) conducted a study on “The factors affecting climate of Elementary Schools”. The following were the objectives of his study: (i) to identify the organisational climate of elementary schools of Kheda District (ii) to compare organisational climate of different schools (rural, urban, government and non-government and (iii) to study the various factors affecting organisational climate. The sample consisted of 50 elementary schools from 10 Taluks of Kheda District for the present study. Organisational climate description questionnaire, developed and standardised by Halpin and Croft was used.

The findings of the study revealed that (i) organisational climates are not unique (ii) the school management of Kheda District, may be Government or non-government, is not the deciding factor for the climate of schools (iii) the district has all types of climates. However, there is no difference in the climate structure of rural and urban schools and (iv) the dimensions of organisational climate has a meaningful role in creating and determining the effect of climate typology.

Jayashree Roy Jalali (1995) presented his study on “Innovative practices to ensure school effectiveness among deprived groups”. This study attempted to find out the extent of autonomy exercised by the Lal Autonomous District Council in
Mizoram in the spheres of academic, administrative and financial planning and management of primary education. The primary data was obtained from opinion surveys administered to head teachers of ten percent of the primary government schools through both structured questionnaire and interviews and surprise visits. Secondary data was collected from policy documents, official circulars etc.

The study was a pointer to the crucial role that local bodies could play in improving school effectiveness by inculcating a sense of involvement and participation among the local people and could, to a great extent, offset the disadvantages which led to educational backwardness among deprived groups.

2.3. Studies on Learning Achievement in India

While reviewing the studies on learning achievement, it provided an occasion to come across a handful of studies on learning achievement related to physical, curricular and administrative factors as well as other factors too.

2.3.1. Studies on Learning Achievement related to Physical, Curricular and Administrative Factors

Bakthavatsalam Naidu, C. and Padmanaban, S. (1993) conducted a study on “The Impact of pre-primary education on the academic performance of class I Children”. The objective of the study was to find out the effect of pre-primary education on the later school performance of children in class I. A performance test consisting of three parts viz. (i). Oral performance (ii). Written performance and (iii). Performance by activity was administered on the children.

It was found out that the impact of pre-primary education on later school performance was significant in favour of pre-primary education.

Joshi Sneha and Biswal Ashutosh (1996) presented a study on “Impact of Teachers’ Behaviour in terms of management of available learning resources on scholastic achievement and interest of standard V primary school children”. The objective of the study was to examine the effect of management of learning
resources by teachers on scholastic achievement and interest towards teaching and learning of standard V students, taking intelligence and school effectiveness as covariates. Ninety standard V students from four schools of Baroda City were taken as sample for the study. Shukla’s test of measuring intelligence of Gujarati Children, Achievement test, Interest inventory and socio-economic status inventory were the tools used for collection of data.

The major findings of the study were: i) The scholastic achievement of students in well-managed schools of learning resources was significantly higher than the achievement among the poorly managed schools of learning resources and ii) the management of learning resources and interest of standard V students towards teaching learning were directly related.

Lulla, B.P. Shah, G.B. and Darji, D.R. (1966C) submitted their study on “Investigation and academic causes of backwardness in social studies at elementary schools”. The objectives were: (i) to study the factors in the school which lead to low achievement of normal pupils in social studies and (ii) to know the causes leading to low achievement of pupils in the subject as viewed by the teachers and headmasters of the elementary schools of Gujarat. The investigation was conducted with two approaches viz., through circulation of the questionnaires among teachers and headmaster of elementary schools of Gujarat and through case studies of the children of municipal schools of Baroda City, whose achievement in social studies was low at three successive examinations.

The following were found to be the academic causes of backwardness in social studies. They pertained to defects in curriculum, teaching material, teachers and teaching methods, administration in schools and of examination. Majority of teachers found the prescribed syllabus of the subject as too heavy, divorced from real life situations and sometimes even beyond the grasp of a teacher. Text books in geography were found to have outdated maps, while those of history were found over-loaded with facts. These books failed to cater to the needs of students.
Explanations to the fundamental concepts were lacking. Teaching aids were either not available at all or were scarcely used. Two-thirds of the teachers lacked training and were wholly dependent on the text-books. On the spot excursions and study tours could not be organised due to paucity of funds. Classes were over crowded. Teacher were overburdened with non-academic work. Therefore, personal guidance to these low-achievers was not possible. Proper inspection and supervision by the heads of the schools were lacking. Teachers were weary of transfers. Private tuitions and cheap guides formed a great hindrance in the mental development of these low achievers. Examination system in vogue failed to evaluate the efficiency of learning experiences provided to the children.

“A comparative study of the efficiency of various methods of supervision in improving teaching learning process and students’ achievement by Government teachers” was made by Purohit, J.N. (1972). The objectives of the study were i) to find out the extent of efficiency of the planned supervision by the headmaster, the team supervision by the subject teachers and the self supervision by the teacher in terms of teacher performance and students’ achievement (ii) to compare the efficacy (in terms of teacher performance and students achievement) of (a) planned supervision by the headmaster with that of team supervision by the subject teachers (b) planned supervision by the headmaster with that of self supervision by teacher and (c) team supervision by the subject teachers with that of self supervision by the teacher and (iii) to identify relatively the most effective method of supervision. The sample consisted of fifteen schools selected from three districts. These five schools in each district formed as clusters to adopt one method of supervision. A cluster of schools consisted of at least one rural school, a boys’ school at the district headquarters and one non-government school Compulsory Hindi and English, compulsory and elementary mathematics were supervised for standards IX and X. A team of five professors/teachers of Government Teachers Training College, Ajmer was constituted for the rating of the teaching performance. The data were collected
by using the schedules for supervision, rating scales for teacher performances and teacher effectiveness and achievement tests.

The following were the findings of the study: (i) under the planned supervision of the headmaster (a) teacher’s performance improved in all the subjects and in all the classes but this improvement was not significant (b) there was a significant increase in students’ learning achievement scores in Hindi of standards IX and X, English of standard IX and Mathematics of standard X, but a significant downward trend was noted in students’ learning achievement scores in English of Standard X and Mathematics of standard IX.

Satvir Singh et al (1995) made an effort to study the “Effect of school policies and practices on students’ achievement”. The objective of the study was to analyse the data of Baseline Achievement Studies recently conducted in India under the District Primary Education Programme of Government of India. The contributions of factors of teacher quality, school resources and school academic climate were examined.

The findings were: (i) the teacher qualification with school mean achievement was not consistent across states nor statistically significant (ii) the teaching experience was negatively associated with achievement (iii) length of teachers’ service in a particular school tends to be positively associated with achievement (iv) schools had shown positive association with achievement and these were consistent across states (v) the number of teachers in a school pupil-teacher ratio had negative association with achievement (vi) synthesis of results of all eight states in respect of effects of school academic climate shows two factors, viz. (a) teacher frequently taking test and providing feedback and (b) teacher assigning homework and correcting it had positive and strong association with school means in mathematics and language and (vii) time devoted by pupil for homework and teacher frequently giving arithmetic problems to solve in the class had also shown positive and significant contribution to school mean achievement.
In their study on "Inter-School Variations in Student Achievement: An Analysis of Primary Schools in Five Selected Localities", Varghese, N.V. and Govinda, R. (1993) have attempted to answer these questions: (i) when the contexts and inputs do not vary widely between schools, would their effectiveness manifested in terms of student achievement vary? (ii) how does one account for variance in student achievement among schools within a given locality? The sample of the study included primary schools in five selected localities of the state of Madhya Pradesh. The localities selected for the study vary in terms of levels of overall development ranging from a highly backward tribal locality to a highly advanced urban zone. Achievement tests were administered to children in grades IV and V.

Findings of this study indicate that within the given contexts, school practices such as the way the curriculum was transacted, the pedagogical practices, classroom management and time management influenced student achievement.

2.3.2. Studies on Learning Achievement related to Factors other than Physical, Curricular and Administrative Factors

"Upon the Academic Achievement of High School Under-Achievement" was a study conducted by Dandapani, S. (1976) in which the objectives were: (i) to find out the effectiveness of a programme of group guidance and academic counselling on academic achievement among high school underachievers in comparison to control groups on non-counseled underachievers and normal achievers and (ii) to examine the relative effectiveness of the programme on underachievers belonging to families of professional class, merchant class and clerical class groups. The sample was drawn from 680 boys studying in Standard X English Medium of twelve high schools in Mysore City. Ninety out of 680 boys, identified as underachievers, constituted the experimental group. Another thirty randomly selected underachievers and thirty normal achievers formed the control groups. A pretest-posttest control group design was used. For deriving an index of
mental abilities the Group Test of Scholastic Abilities (GTSA – Verbal) standardised by the State of Bureau of Educational and Vocational Guidance, Bangalore was used along with a battery of academic achievement tests in general Mathematics, general science and social studies prepared by the investigator for standards IX and X for pretest and post-test respectively.

The major findings of the study were: (i) academic achievement of the counselled under-achievers was significantly greater than that of non-counselled underachievers (ii) the academic achievement of the counselled underachievers was significantly greater than that of non-counselled normal achievers (iii) there was no difference in the academic achievement of the non-counselled normal achievers (iv) there was no difference in the academic achievement of underachievers of merchant class and clerical class families and (v) the underachievers of professional class families differed significantly from the other two groups.

Guha Roy, Mitra, S.K. and Surja Sankar Roy (1995) contributed a study on “Evaluation of attainment level of primary students: The West Bengal example”. The objective of the study was to ascertain, through suitable tests, how far minimum learning had been achieved by students in the three subjects, namely, the mother tongue, Mathematics and Environmental Studies at the end of class IV and to study the relationship of scholastic achievement with certain socio-economic factors. The sample of the study consisted of 882 schools. In the selected schools, where the number of class IV students was 20 or less, all students were put to assessment. In class where the number exceeded 20, the determined number of 20 students was selected for the study. Data were collected through survey tests, Guardian schedules and School schedules.

The findings of the study were: (i) the mean scores for the state as a whole were 38.6, 44.0 and 44.8 in language, Mathematics and Environmental Studies respectively (ii) the students of government schools who came from socio-economically privileged section of society had consistently scored very high in all
subjects, the mean being more than 75 (iii) as far urban and rural students and for boys and girls, there was hardly any difference in achievement (iv) the difference in the average scores between children of literate and illiterate mothers was as much as 15 (v) the students from small families also had performed slightly better than moderate or larger families and (vi) the higher the per capita expenditure in a family the higher was the achievement level of children.

Mehrotra, S. (1986) conducted a study on “A study of the Relationship between Intelligence, Socio-Economic Status, Anxiety, Personality Adjustment and Academic Achievement of High School Students. The investigation was designed to study the relationship between intelligence and socio-economic status of the family, personality adjustment, anxiety and academic achievement of high school students. The sample for the study consisted of 535 class X students. Around 260 of them were boys and 275 girls. Jalota’s Group General Mental Ability Test was used for measurement of intelligence. Kuppuswamy’s Socio-Economic Status Scale was used for assessment of Socio-Economic Status of the families of the students. Saxena’s Adjustment Inventory was administered for assessment of the personality adjustment in five areas, viz., home, health, social, emotional and school adjustments. Kumar’s Indian adaptation of Sarason’s General Anxiety Scale was used for measurement of anxiety. Marks in the high school examination were taken as the criterion of academic achievement.

The main findings of the study were: (i) both for the boys and the girls there was an inverse relationship between level of anxiety and academic achievement (ii) both for the boys and the girls there was a positive relationship between socio-economic status of the family of the students and academic achievement (iii) there was a positive relationship between intelligence and academic achievement (iv) there was a positive relationship between level of adjustment and academic achievement and (v) in general, the girls had a comparatively higher level of anxiety than the boys.
"Some Determinants of Academic Performance in Preadolescent Children" was the research work of Mitra, R. (1895). The objectives of the study were: (i) to see the variation in academic achievement and its correlates with reference to school (ii) to find out the sex differences with regard to academic achievement, intelligence, achievement motivation, extraversion and neuroticism (iii) to ascertain the pattern of prediction of academic achievement from its correlates indicating the contribution of sex. The sample consisted of 400 students, 200 boys and 200 girls, of classes IV to VII and 9+ to 13+. The tools used were the Group Intelligence Test in Bengali for juniors by G.B. Kapet, a questionnaire in Band standardised by Durgadas Bhattacharya, Eysenck's personality inventory for juniors adopted in Bengali by Artison and the students' annual examination marks. In the criterion of the study, academic achievement was the criterion variable and the predictor variables were intelligence, achievement motivation, extraversion, neuroticism and sex.

The findings were: (i) intelligence was the most significant correlate of achievement, irrespective of sex (ii) achievement motivation and extraversion were positively and significantly correlated with academic achievement for both sexes, but both lost their significant effect on academic achievement when intelligence was partialled out (iii) students possessing relatively higher extraversion tended to achieve relatively higher, but neuroticism was not a factor that influenced achievement (iv) there were no sex differences at the preadolescent level with regard to intelligence, achievement motivation, extraversion but the boys were more neurotic than the girls and (v) the prediction equation of academic achievement from its correlates accounted for three fifths of the variance and it did not significantly vary with sexes.

Salunke, R.B. (1979) has made an attempt to study on The Home environment, Socio-Economic Status and Economic management in relation to the Academic Achievement of the First year college students of M.S. University Baroda. The main objectives of the investigation were: (i) to study home
environment, educational climate in the home, emotional climate in the home, socio-economic status, economic management and academic achievement of the first year college students of the M.S University, Baroda and (ii) to find out the relationship of home environment, Socio-Economic Status and economic management with academic achievement. The sample for the study consisted of 693 students of the first year from four faculties of the M.S. University of Baroda, viz., science, commerce, arts and home science. Data were collected by personally administering the questionnaire to the students. The questionnaire was in three sections – section I was the socio-economic status scale which was a modified version of the original Kuppuswamy SES scale, section 2 and 3 were home environment questionnaire respectively developed by the investigator. Data regarding academic achievement were obtained from the official records.

The major findings of the study were: (i) the academic achievement of the students was related to their home environment (ii) educational facilities and emotional happiness in the home contributed positively to the academic achievement of the students and (iii) socio-economic status was not related with academic achievement whereas economic management was related with academic achievement.

Shah, J.H. (1978) has tried to find out Relationship of Self-Concept to Academic Achievement of Secondary School Pupils, Department of Education. The major objective of the study was to find out the relationship between self-concept and academic achievement. The sample consisted of 764 pupils of Grades IX and X drawn from ten secondary schools of Bhavnagar. Some pupils dropped out in the middle and the final sample included 718 pupils of whom 368 were boys and 160 girls were drawn from Grade IX and the remaining from Grade X. A self-concept inventory, newly developed by the author and based on the self-reporting technique, was the tool used for data collection. The aggregate marks scored in
academic subjects at the annual examination, converted into T-scores, were used as the measure of academic achievement.

The major conclusion of the study was: the relationship between self-concept and academic achievement was significantly positive and linear.

Shukla, C.S. (1984) conducted a study on “Achievement of Primary School Children in relation to their Socio-Economic Status and Family Size”. The objectives of the study were: (i) to find out rural-urban and sex differences in the academic achievement of primary school children (ii) to study the relationship between SES and academic achievement (iii) to find out the relationship between the size of the family and academic achievement (iv) to study the relationship between structure of the family and academic achievement (v) to examine the relationship between number of children in the family and academic achievement and (vi) to study the relationship between adult/child ratio in the family and academic achievement. The study was conducted on a sample of 2000 rural and 50 urban primary school children studying in classes III and V of 33 rural and 11 urban primary schools randomly drawn from the list of all basic primary schools of the Varanasi region. This sample consisted of primary school children who were within the normal range of intelligence as measured by Joshi and Tripathi's Non-verbal Test of Intelligence. Achievement Tests in Hindi, arithmetic, general science, social studies, along with an SES Index prepared and standardized by the investigator were administered to the subjects. The following conclusions were drawn: (i) there were no significant sex and rural-urban differences in the academic achievement of primary school children (ii) SES was positively and significantly related to academic achievement (iii) at class III level, children belonging to the large family size category had significantly better academic achievement than those of average and small family size categories and (iv) at class V level, the positive impact of large family size had been completely nullified. There was a tendency of better achievement among the children belonging to the small family size category.
2.4. Studies on School Effectiveness in Foreign Countries

Review of related research studies of foreign countries on school effectiveness has helped to understand that there are also studies on this problem related to Physical, Curricular and Administrative Factors. It was also found that school effectiveness studies in foreign countries have been conducted in respect of various other factors than the physical, curricular and Administrative factors.

2.4.1. Studies on School Effectiveness related to Physical, Curricular and Administrative Factors

Bain Helen et al (1989) conducted a study. It was: “A study of effective teaching practices from the Project Star Class-size Research. A study of fifty effective teachers whose class average gain scores ranked in the top 15% of each of four school types in project star”. The objective of the study was to determine what effective teachers do to promote learning in reading and Mathematics. The sample consisted of 49 effective first-grade teachers. Data were collected through effective teacher practices survey instrument and questionnaire.

The findings revealed that the effective teachers: (i) had high expectation, provided clear and focussed instruction, closely monitored student learning process, retaught using alternative strategies when children did not learn, used incentives and rewards to promote learning, were highly efficient in their classroom routines, set and enforced high standards for classroom behaviour and maintained excellent personal interaction with students (ii) showed enthusiasm in the form of acting, demonstrating, and role-playing.

Bain, Helen Pate and Jacobs Roseanne (1990) in their study of “The case for smaller classes and better teachers” had the main objective of identifying shared characteristics and instructional teaching strategies. The sample consisted of 49 effective first-grade teachers. Data were collected through observations and interviews.
The findings indicated that effective teachers had high expectations for student learning: stressed family involvement and individual attention and had clear discipline and organisational policies.

“Factors contributing to school improvement in higher performing elementary schools” was a study conducted by Binkowski, Kathleen (1995) with the following objective: to identify and analyse higher and lower performing elementary schools according to an enhanced definition. This investigation was a mixed design study of 4 elementary schools (K-6) in Connecticut Educational Reference Group VI. Data were collected by detailed descriptions, triangulated addition to validation through member checks, peer debriefing and description, negative case analysis and journal entries.

The study found out that (i) leadership was one significant factor indicating higher performing school and that (ii) it was when the principal, teachers and district office coalesce around common goals that schools perform at higher levels.

Buzzi, Michael Joseph (1990) investigated “the relationship of school effectiveness to selected dimensions of principal’s instructional leadership in elementary schools in the state of Connecticut”. The objective of the study was to identify the relationships between the instructional leadership behaviour of the principal and six indices-safe and orderly environment, clear school mission, high expectations, opportunity to learn and time on task, frequent monitoring of students’ progress, home-school relations of school effectiveness. Connecticut school effectiveness questionnaire was used as the tool for data collection.

As a result of this study, it was found out that the relationship between instructional leadership behaviour and school effectiveness was significantly positive.
Carter Jacquelyn and Michael William, B. (1995) presented a study on “The Development and validation of an Inventory of Effective School function”. The effective school function inventory was administered on 124 teachers.

The study identified 4 meaningful factors: (i) supportive collegial interaction (ii) co-operative facilitation of goal attainment in learning/sharing (iii) morally oriented leadership and (iv) instructional strategy sharing by teachers.

Faulkenberry, Thomas Michael (1996) contributed his study on “A comparison of teachers’ perceptions of key and instructional leadership behaviours and instructional leadership behaviours identified in effective schools research”. The objectives of this study were: (i) to identify which instructional leadership behaviours effectiveness and (ii) to compare their perceptions to the instructional leadership behaviours teacher perceive as most vital to their teaching effectiveness and (ii) to compare their perceptions to the instructional leadership behaviour identified as most important by effective schools research. Five point Likert Scale was used as the tool for collection of data.

The major finding of the study was that the teachers perceptions placed the important instructional leadership behaviour areas in the following order: (i) the principal as a resource provider (ii) the principal as a visible presence (iii) the principal as a communicator and (iv) the principal as an instructional resource.

Kshensky, Marcel (1990) made an inquiry into the “Principal power and school effectiveness: A study of urban public middle schools”. The main purpose of this investigation was to study the relationship of principal power with school effectiveness. 34 New York City public middle schools were chosen for the study. The sample consisted of 34 principals, 113 assistant principals and 375 teachers. Data were collected through a survey questionnaire which included (a) respondent’s background information (b) the administrator behaviour scale and (c) school assessment survey.

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The findings revealed that (i) significant relationship existed between power behaviour and a school’s effectiveness and (ii) coercion correlated negatively while authority and influence correlated positively with school effectiveness.

Lee, Patricia Ann (1994) conducted a study on “Achievement differences between bused and non-bused students”. The purpose of this study was to determine if busing is successful in improving achievement. Selected bused students’ achievement gains were compared with the gains of students who remained in their neighbourhood schools. Vocabulary, comprehension, and total reading scores as reported on the ‘California Achievement Test-Reading Form E and ability scores from the ‘Test of Cognitive Skills’ were collected from both pretests and posttests.

Findings revealed that no differences between bused and non-bused students were found in cognitive skill or vocabulary.

Mitchell Vemay et al (1990) made an effort to study “Exemplary urban career-oriented secondary school programs-Revised”. The study was designed to document the key factors in the success of schools. The sample consisted of 12 urban high schools. Case studies were used to gather information from the schools.

The finding was: A safe and orderly environment conducive to teaching was one of the 10 key factors in the success of schools.

Ndeya, Charity Ntomboxolo (1990) tried to find out “Similarities and differences in learning activities between higher academic achievers and lower academic achievers at an urban university” with an objective to determine if there were statistically significant differences in learning styles, study habits and levels of teacher approval between higher achievers and lower achievers. A sample of 614 participants received the Group Embedded Figures Test to measure their levels of field-independence. The survey of study habits and attitudes was administered to 621 participants.
The findings revealed that urban university higher achievers were more field-independent, had superior study-habits and higher levels of teacher approval than lower achievers.

Northern Nevada Community College, Elko (1995) conducted a study on “Student satisfaction inventory results. Summary report”. The purpose of the study was to conduct a survey of student satisfaction with NNCC’s services. Completed surveys were received from 314 students. The findings of the study were: (i) item rated statistically higher by students at NNCC included excellent quality of instruction, helpful library and campus staff and adequate and accessible computer labs (ii) quality of instruction was rated as the most important item by respondents while helpful veteran’s services personnel was the least important (iii) the largest gaps in terms of high importance and low satisfaction ratings were found for campus parking and security, the existence of channels for expressing complaints and the availability of internships or practical experience and (iv) the smallest gaps were found for a sense of belonging on campus, campus is well-maintained and helpful book-store staff.

The study of Renihan Patrick, J. and Renihan Frederick, I. (1994) on “Institutionalising school improvement: A recipe for success” revealed that improvement strategies may be enhanced by considering four key areas of maintenance activity: monitoring, attention to leadership, staff development and stake holder involvement.

Rosalind Levacia and Derek Glover (1998) made an investigation on the “Relationship between efficient resource management and school effectiveness: Evidence from Office for Standards in Education (OFSTED) Secondary School Inspections”. The main purpose of this study was to investigate the relationship between the efficiency of resource management and school effectiveness. The sample consisted of 117 secondary schools and the school inspection reports were made use of as the tools for collection of data. The major findings were: (i) There
was a relationship between efficient deployment of resources in the schools and the quality of learning and teaching provided (ii) it was the nature of the decision-making processes for resource management rather than the quantity of human and material resources that was associated positively with educational quality (iii) the most important Resource Decision Making (RDM) variable was resource deployment and (iv) Twelve resource management variables were identified. They were: 1. Rational planning 2. Allocation of funds 3. Departmental planning 4. Staff deployment 5. Staff training 6. Deployment of educational resources 7. Accommodation usage 8. Effectiveness of financial administration 9. Evaluation by the school of quantitative outcomes such as Exam results 10. Process for securing value for money such as searching for best buys 11. School-based review of aspects of its work and policies and 12. Involvement of governors with the senior management team in self-evaluation.

Seamster, Delores Stubble Field (1996) conducted a study. It was “Effective teachers in an effective school: A case study”. The objectives of this study were: (i) to describe the behavior of effective teachers working within the context of an effective school (ii) to examine teacher behaviours that were external to the classroom setting including teacher-to-teacher relationships, teacher-to-parent relationships and teacher-to-pupil relationships. An inner city elementary campus was the site of this study. Data were collected from eleven K-3 teachers using participant observation and interviews over a seven month period. Documents were also used as a source of data.

The major findings of this study were: (i) a caring school culture plays an important role in a school’s success and the effectiveness of its teachers (ii) effective teachers in an effective school function as autonomous decision-makers in their classroom, choosing the curriculum and techniques that work best for them and their students (iii) they tend to focus on basic skills, especially reading and Mathematics, using explicit direct instruction methods, creation of structured school
and classroom environment for low-income inner city students and (iv) administering firm discipline fairly in a caring, supporting school climates.

Townsend Tony (1991) made a study. It was “School Effectiveness: A view from the school”. The objective of the study was to examine the perceptions of educational stake-holders towards effective schools issue. Data were obtained from a survey mailed to a total of 1060 principals, school counsellors, teachers, parents and students in 100 schools.

The findings of the study were: (i) staff and school wise decision-making processes were viewed as more important in the development of an effective school and (ii) the most important element of an effective school was a dedicated and cooperative staff that utilised effective communication and team work.

2.4.2. Studies on School Effectiveness related to Factors other than Physical, Curricular and Administrative Factors

Desmond, Cheryl Taylor (1990) entered into an historical analysis. It was “An historical analysis of the dynamics of school and community reform”. The purpose of this study was to provide an historical analysis of the dynamics of reform within a local district and community. The methodology of the study included historical analysis of school and community documents, analysis of U.S. census data, structured and informal interviews and non-participant observation.

The major finding of the study was a conclusion to the effect that the community would use its power through petitions, the press, community meetings and the voting booth to effect change within the local schools, when it was dissatisfied.

Mayberry Marlee (1993) conducted a study on “Effective learning environment in action: The case of home schools”. The objective of the study was to examine the relationship between variables found conducive in creating effective learning environments and the education experiences of children in home schools.
The finding of the study was: variables embodied in home-school setting (learning climate) seem to provide children with learning processes emphasising inter-dependence, co-operation and an orderly learning environment-characterised by warmth and concern.

Wehlage, Gary, B. and Stone Calvin (1995) made an investigation into “School-based student support services: community and bureaucracy”. The objective of the study was to investigate whether a student-and family-support program in a communally organised school was more effective than a similar program in a school organised along bureaucratic lines. Two schools from the Dentre on Organisation and Restructuring of Schools (CORS) sample were compared.

Findings show that schools linked with strong community enjoy better outcomes. Simply adding school-based support services to bureaucratically organised schools is unlikely to prove effective.

2.5. Studies on Learning Achievement in Foreign countries

In the review of related research studies on learning achievement, it was found that many useful studies are existing in foreign countries on Learning Achievement Related to Physical, Curricular, Administrative and other factors.

2.5.1. Studies on Learning Achievement related to Physical, Curricular and Administrative Factors

Grafwallner Rudolph, H. (1994) has studied on “Histories of attendance in early childhood education or child day care programs and third grade school achievement of rural students from low income families. This study examined the relationship of third grade school achievement of rural students from low income families and their histories of attendance in early childhood education or child day care programs. The study was conducted with a sample of 185 low income students.
from four rural school systems in Maryland. Five separate research questions were examined with respect to the above objective.

The finding of the study was that young children who attended preschool, Head start or pre-kindergarten programs are more likely to produce higher school achievement scores by third grade than those who attended family day care and child day care programs.

“The relationship of teacher effectiveness and selected teacher demographic variables to student outcomes” was a study made by Grisson James Patrick (1992) in which he has examined the relationship between teacher instructional effectiveness as measured by an administrative evaluation process and the outcome measure of elementary students’ achievement test scores. Subjects of the study were: 124 elementary school teachers, Grades 1 through 6. A teacher evaluation instrument was used to measure teacher instructional effectiveness.

The finding of the study revealed that there was a low relationship between student achievement and teacher effectiveness.

Guild, Diana Elaine (1996) tried to inquire into “The relationship between early childhood education and primary school academic achievement in Solomon Islands”. The purpose on the study was to determine the relationship between early childhood education and primary school academic achievement.

The finding of the study revealed that early childhood education was positively related to primary school academic achievement and it contributed to higher performance.

Heck Ronald, H. (1992) made an effort to study on “Principals’ instructional leadership and school performance: implications for policy development”. The objective of the study was to examine the effects that principals’ instructional leadership had on school achievement /outcomes. The data were
collected administering questionnaire on the principal and at least 4 teachers from 31 elementary schools and 25 high schools in California.

The findings revealed that achievement outcomes could be predicted based on teachers’ and principals’ perceptions of instructional leadership.

Knuver, Anja W.M. and Brandsma Hennie, P. (1993) took interest to study on “Cognitive and Affective Outcomes in School Effectiveness Research”. The objective of this school effectiveness research was to study both cognitive and affective educational outcomes in combination with each other. The sample of the study consisted of 7000 pupils in 212 primary schools in the Netherlands. The finding was: The correlation between cognitive and affective variables seem small, but positive.


Madsen Carolyn (1992) submitted a study on “The Impact of a training program on the effective outcome of effective school processes”. This study examined the effect of skills of effective teaching training upon the effective outcomes of regular and special education middle school students. Eighty regular and special education teachers who had or had not received skills of effective teacher training participated in this study. The tools were: Classroom environment scale, Teachers Treatment Inventory, Non-gender high and low achiever (version-3).

The finding of the study revealed that regular education students of Skills of Effective Teaching Training (SET) teachers viewed their classroom less influenced by issues of order and organisation, as having a greater emphasis upon strict rule enforcement and as more receptive to student planning input than regular education students of non SET teachers and special education students of non SET teachers.
2.5.2. Studies on Learning Achievement related to Factors other than Physical, Curricular and Administrative Factors

Bethel David Edwin (1992) presented a study on “The relationship between self-esteem and achievement”. The purpose of the study was to develop and statistically analyse the relationship between self-esteem and achievement. Approximately 100 students in each of grades 3, 6, 8 and 10 from two rural districts in Missouri participated in the study. Data were collected through Coopersmith self-esteem Inventory and the Missouri Mastery Achievement Test.

The findings of the study were: (i) at the third grade level, canonical correlation analysis produced one statistically significant variate (ii) at the sixth grade level canonical correlation analysis produced two statistically significant variates (iii) at the eighth grade level canonical correlation analysis produced one statistically significant variate and (iv) at the tenth grade level, canonical correlation analysis produced no statistically significant variates.

Douglas Odie Jacob (1995) submitted a study on “Predictors of academic achievement amongst the high performing African-American male high school students”. This study investigated the demographic and socio-cultural predictors that may impact academic achievement of high performing African-American male high school students. The sample population consisted of African-American males enrolled in grades 9 through 12 at a suburban high school located in Northern California. A Likert Questionnaire was administered for data collection.

The findings of the study were: (i) students self-perception of academic ability was found to have the highest correlation with academic performance and (ii) students’ self-perception of academic ability and locus of control played as important role in their overall academic achievement.

Singletary Carolyn Price (1992) made a contribution with his study on “Academic effectiveness of elementary magnet schools: The impact of management
school education (as a vehicle for school desegregation) on the academic achievement of African-American pupils”. The objective of the study was to explore the academic effects of magnet schools on the achievement of African-American pupils in the elementary grades. A secondary purpose was to examine the relationship between gender and academic achievement. The sample consisted of 332 African-American pupils. Comprehensive Tests of Basic skills of Stanford Achievement Tests was administered on them.

The major findings were: (i) school type appeared to be significantly related to reading and Mathematics (ii) Gender and interaction between school type and gender do not appear to be significantly related to reading and Mathematical achievement.

The study of Youn Yun Sung (1993) on “Academic Achievement of Asian-American students: Relating home environment and self-efficacy” had an objective to investigate the relationship between home environment, self-efficacy and academic achievement of 89 Asian-American students. Data were collected through 5 point Likert self-efficacy scale and home environment questionnaire.

The finding revealed that the achievement was related to self-efficacy and parental expectations for both gender and cultural background groups and also to family income.

2.6. An Overview of the Research Work Reviewed

An overview of the research reviewed on school Effectiveness and Learning Achievement in India and abroad reveal the following:

School Effectiveness studies in India have dealt with the effectiveness of physical, curricular and administrative inputs on learning achievement.

Govinda and Varghese (1993) found that students in schools with good or very good facilities scored twice as high in Hindi and Mathematics as those in schools with ‘no building’ or ‘poor facility’. Shukla and others (1994) found that
students in schools with more rooms per student scored higher on arithmetic and reading comprehension tests and that students in schools with teacher facilities scored higher in reading comprehension. Saxena, Singh and Gupta (1995) found that schools' physical facilities were important correlates of student achievement. Govinda and Varghese (1993) found that children in schools where all students had text books scored two or three times higher than children in schools where only some (or none) had text books. Varghese (1995) found positive association existing between learning achievement in Hindi and Mathematics and physical facilities like school building, separate classrooms, student desks, black-boards, school library, electricity and fans.

As far as curricular inputs are concerned, Shukla and others (1994) did not find teachers experience to be an important predictor of student achievement. Saxena, Singh and Gupta (1995) found that teachers' experience was negatively correlated with students' achievement. Saxena, Singh and Gupta (1995) found that teachers' average number of years of education was positively related to achievement. Govinda and Varghese (1993) found the teachers' educational attainment was a significant predictor of student achievement in both advantaged and disadvantaged regions. Saxena, Singh and Gupta (1995) found strong positive associations between teaching practices and student achievement. Govinda and Varghese (1993) found that in schools where students had higher levels of academic achievement, teachers explained new concepts with frequent use of blackboards, motivated students to participate in classroom activities by asking questions, provided students opportunity to practise through classwork, assigned and corrected homework, and reviewed the previous lesson before proceeding. Secondary analysis of the District Primary Education Programme confirmed that student achievement in low-literacy districts in India was higher in schools with more total instructional time.
With respect to administrative factor, type of school management (fully private, government-aided private or government) Govinda and Varghese (1993) and Varghese (1995) found that students at fully private and government aided private schools had higher achievement than students at government schools.

Of the studies in foreign countries, Harris, Lonnie Graden Jr. (1995) found that the classroom climate does impact learning achievement in Mathematics and language. The principal finding of Reimers Fernando (1991) was that the amount of contact time between teachers and students in Pakistan appeared to have no influence on student achievement as measured in Mathematics and Science tests. Grafwallner Rudolph (1994) found that pre-kindergarten programs are more likely to produce higher school achievement. Heck Ronald (1992) found that achievement outcomes could be predicted based on teachers’ and principals’ perceptions of instructional leadership. In a more wide ranging study including case studies of effective schools in eight countries Levin and Lockheed (1993) point out the importance of material inputs on achievement in economically impoverished countries. Hadded et al (1990) report that several studies have identified headmaster’s education and experience as important variables that affect pupils’ achievement. Peter Mortimore in Riddell and Brown (1991) reports that learning achievement is heavily influenced by home background of the pupils.

Research on the effects of school-level inputs on student learning achievement in India is extremely limited. Dave (forthcoming) notes that, out of 1800 studies of Schooling in India in 1988-92, only 54 focussed on primary education, and only 8 of these examined school effects on learning achievement. Later on under the auspices of the National Seminar on School Effectiveness and Learning Achievement at Primary Stage and baseline assessment studies under District Primary Education Programme, studies of Varghese (1995) and Saxena, Singh and Gupta (1995) emerged. But these studies have not brought to light about the kind of factors that influence learning achievement in different types of Schools.
In all these studies the teacher factor is considered as the one responsible for his routine teaching only. It is viewed that the routine teaching work alone will not help to increase the learning achievement of pupils. He should shoulder certain administrative responsibilities also.

In order to fulfil the policy directive (New Educational Policy 1986 and revised in 1992) that quality of education should be improved by enhancing the learning achievement of primary children in India, ways and means of improving the school effectiveness and learning achievement at primary stage have to be found out. Hence an indepth study of factors related to school effectiveness and learning achievement at primary stage is warranted so as to enable every teacher concerning with primary education to be aware of (i) the kind of physical factors that influence learning achievement (ii) the curricular factors that help improve the learning achievement and (iii) the administrative aspects that would make the dream of enhanced learning achievement a reality and to put them into action.

The present study is an attempt in identifying the factors (physical, curricular and administrative) related to school effectiveness and learning achievement at primary stage in the cognitive subjects namely Tamil (Regional language), English (Regional language), Mathematics, Environmental Studies-I (Social Science) and Environmental Studies-II (Science) so that the quality of education at primary stage will rise up to an astonishing level.

The statement of the problem is presented in the next chapter.