REVIEW OF RELATED LITERATURE
CHAPTER 2
REVIEW OF RELATED LITERATURE

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CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1 The literature in any field forms the foundation upon which all future work is built. If we fail to build the foundation of knowledge provided, by the review of literature, our work is likely to be shallow and native and will often be duplicate work, that has already been done better by someone else.

(W.R. Brog)

Knowledge from the literature is used in stating the significance of the problem, developing the research design, relating the results of the study to previous knowledge, and suggesting further research. A review of literature is to define and limit the problem. It places the study in a historical and associational perspective and helps to avoid an unintentional and unnecessary replication. It provides an opportunity of gaining insight into the methods, measures, subjects and approaches employed by other researches.

In order to avoid the replication of findings and to take on advantage for planning and conducting the study it was considered essential to review the published and unpublished literature, in the area of pre-school education.
An attempt has been made in the present survey to collect information from the original theses. Where the theses were not available, recourse had to be taken to educational reviews and journals. Some of the important journals used as sources are the journal of Educational Psychology, Indian Education Review and Journal of Educational Research and Extension. The fourth and fifth survey of Researches in Education by the NCERT also proved to be useful sources. The survey has also been enriched by extracts of students taken from various other publications. These publications have been mentioned in the Bibliography and References.

Research is considered to be more formal, systematic, intensive process of carrying on the scientific methods of analysis. It involves a more systematic structure of investigation usually resulting in some sort of formal record of procedures and a report of results or conclusions.

(John W. Best)

Research is conducted in order to find out a scientific basis for answering the truth, to understand cause and effect and to make academic prediction. It develops better understanding of a situation. In simple words, it means putting a question and finding an answer based on evidence. It helps to apply scientific method to analyse any situation and to interpret data without prejudices and biases.
Several studies have been undertaken on pre-school education. No study, however, could be found attempting similar to the present study.

A systematic approach has been adopted by the researcher for documenting related literature. The related relevant studies collected, have been classified into two broad groups:

* Researches conducted in India

* Researches conducted abroad

Chronological sequence has been followed within each group.

2.2 RESEARCHES CONDUCTED IN INDIA

Bevli, U.K. (1974) Compared the norms of languages development of Indian children of ages 2½ to 5 years as obtained by the cross-sectional and longitudinal studies.

The aim of the study was to see how far the results of the cross-sectional urban study were in agreement with the results of the longitudinal study. The language tests were adapted from Gassel's scale. The original English test was translated into regional language. Responses were categorizedly based on the degree of understanding a child possessed at different age level and the level of abstraction he achieved.
The test was administered on the age groups of 2½, 3, 3½, 4, 4½ and 5 years. The cross-sectional sample included 2510 nursery school going children from the urban population. The longitudinal sample consisted of 292 children, 146 boys and 146 girls.

Findings showed that the development of language is very important in the pre-school period, as it was at this stage that the child, for the first time, was able to speak freely. Language ability got gradually integrated with other fields of behavior by the end of the pre-school stage.


Fourteen children from school one and fifteen from school two were selected. The former group had two years of pre-schooling and were in kindergarten class. The second group belonged to class I of a local free primary school and did not have the advantage of pre-schooling. Pathak’s draw a man test was used. Mean, S.D. and ‘t’ ratio were calculated.

Results showed the trend that the children in pre-school had gone consistently better in all aspects of language development than the children in primary school. However, the differences reached the level of significance only with regard to the number of words and in degree of comprehension. The pre-school was
found to have a much higher score in intellectual development than primary school group. The differences were found to be highly significant.

Kumari Lalita, (1976) conducted a study on “Conservational ability of 6 – 8 years old boys from two occupational environments”. The study aimed to investigate the effect of occupational environment on the concept of conservation. It was hypothesized that experiences in the potter's environment promote earlier conservation in the concept of mass and that the ability to conserve mass is not generalized to conservation of liquid and number.

Six to eight years old boys (N=30) from pottery making families in Delhi and a group of boys from the same socio-economic status (N=30) from families in other vocations were taken. All the children came from grades I, II and III in Municipal Corporation Pre-schools. The date of birth of the child and the occupation of his parents was taken from the admission register of the school.

Each subject was tested individually for three conservation tests of number, liquid and mass. The order in which the questions were asked and the order of the tasks - conservation of number, liquid and mass was the same for all the subjects. Piaget type tasks were used in all the cases.
The results indicated that the potter’s sons attained conservation of mass earlier, and success in conservation of mass was not generalized to liquid and number. It is suggested that the role of conflict and reversibility may be important factors in the concept of conservation. Manipulation may be a necessary prerequisite to the attainment of the conservation in children.

**Rao, Narayan, S. (1977)** conducted a study on “Concept Development in Children” the aim of the study was to investigate: (1) the effect of training on one hand (2) the differential effect of different types of training, (3) the transfer of training from one conservation task to another. The study was conducted on 4 – 6 years (N=30) children by half year intervals divided into five groups. The experimental groups were given conservation training on Number, Mass, Length and Weight employing two procedures – Verbal and Non-verbal. At the commencement of the training, the groups were tested for conservation of Area and Volume.

The post test for conservation of Area and Volume was conducted again after the training. The experimental groups showed definite gains as compared to the control group of Number, Length, Mass and Weight. However, there was no significant difference between the control and experimental group with regard to the conservation of Area and Volume, suggesting that there was transfer effect. Both types of training significantly affect the conservation performance.
Sinha, D. (1977) Studied the "Deprivation and Development of skills for pictorial depth perception". The main aim of the study was to see the impact of familial deprivation on the acquisition of skill for pictorial depth. Perception was studied on two groups of 125 children each from Indian nurseries and orphanages, ranging in age from 3 to 6½ years. Analysis of mean scores revealed a clear developmental trend in both the groups.

Findings of the study showed that intelligence was significantly correlated with the scores. With intelligence controlled, significant retarding effects of deprivation on the scores at the higher age levels but non at 3 to 4 years were found. Comparison of scores on each of the six cues revealed the same tendency. Lack of heterogeneity and absence of stimulation in orphanages had a general retarding influence on the development of the skill for pictorial depth perception.

Saraswati, C., Hunshal (1979) - conducted a study on "Comparative study of cognitive and social development of urban and rural pre-school children." The objectives of the study were to assess the cognitive and social development of urban and rural pre-school children and to identify the environmental factors influencing them.

The study was conducted in seven Anganwadis of both urban and rural areas of ICDS block Dharwad, Karnataka. The sample for the study was drawn from these Anganwadis by
multistage sampling procedure. Ten children were selected randomly from each village thus adding up to a total of 70 children in the urban areas, 45 out of 400 children were selected from three local pre-schools. The total sample comprised 115 children in the age group 3-6 years. Information on the socio-economic status of the family was collected by interviewing the parents. An observation schedule was prepared to assess the social development of the children. The data regarding cognitive development was collected by administering a test developed by the investigator. The test assessed verbal ability, numerical ability and memory power.

Findings of the study were: (1) There was a positive relationship between cognitive and social development of children. (2) Social and cognitive development of urban children was found to be better than that of rural children. (3) Cognitive and social development of children were related to variables like educational and occupational level of the parents. Parents in rural areas were illiterate and did not have adequate knowledge regarding the upbringing of children, also because of pressing socio-economic necessities, no time or resources were left to attend to the needs of the children.

Pushpa, M., (1980) conducted a study on “Social Deprivation and Cognitive development of Primary School Children.” The study aimed at finding out the cognitive styles of primary school children and the social factors that influence their
cognitive attainment. Biological, familial and social variables were taken into consideration. A sample of 265 primary school children from grades I, III and V were selected. To test the cognitive styles, the children’s Embedded Figures Test was used and the Prolonged Deprivation Scale was adopted with slight modification for assessing the level of social deprivation.

It was found that residential-accommodation, physical environment, food, clothing, home environment, economic sufficiency, parental characteristic and interaction with the parents were the significant factors that influence the child in his cognitive attainments. Children who were deprived in residential-accommodation and recreational experiences were found to be highly field dependent. Among the predictor variables the type of school, grade, father’s educational level and income were found to be more significant in effecting cognitive attainment.

Amin, Najma, (1981) conducted “A study of relationship between Spatial Egocentrism and conservation of Length and Area.” The study was started with the objective to find whether spatial Egocentrism is related to: (1) The conservation of Length and conservation of Area; and to see the relationship between. (2) Intelligence and the conservation of Length, (3) Intelligence and the conservation of Area, (4) Intelligence and Spatial Egocentrism and to see if, (5) The conservation of Length and the conservation of Area are inter-related. A random selection of 37 Municipal Corporation Primary Boys Pre-schools in New Delhi South Zone
was made. 280 Raven’s Coloured Matrices, Tasks of Spatial Egocentrism and Tasks of conservation of Length and Area.

For the assessment of Spatial Egocentrism Falvell’s 1968 Perceptual Role Taking Skills Task was used. Test retest reliability was found to be .83 and interscorer reliability was found to be .96. The main findings indicated high and positive co-relation between Perception role taking, both with conservation of Length and Area (.70 and .71) respectively. Perceptual Role Taking may be considered as inversely related with Spatial Egocentrism: As perceptual Role-Taking is positively and highly related with conservation of Area, the relationship between Egocentrism and conservation of Length and Egocentrism and conservation of Area may be taken as high negative correlations. Intelligence is moderately and positively co-related to conservation of Length and conservation of Area.

There is a negative but moderate co-relation between Intelligence and Spatial Egocentrism. Conservation of Length and conservation of Area are positively and highly related to each other ( r being .76). All the coefficient co-relation were positive and significant at .01 level.

Ananda Laxmy, S., (1982) Studied “Cognitive competence in infancy.” The main objective of the study was to assess the maternal components of affiliation and cognitive stimulation and their effects on the development of the infants.
The hypotheses formulated were: (1) The infant’s motor development is related to his health and nutritional status. (2) The infant’s cognitive development is related to his health and nutritional status. (3) The infant’s cognitive and motor development are related to the kind of mother-infant interaction. This study was conducted in three phases. In the first phase, a large sample of infants (N=512) aged 6-24 months from three economic levels were assessed on their cognitive and motor development, nutritional status and their interaction with mothers. In the second phase, a part of the earlier sample of infants from the lower and lower-middle economic levels (N=70) was followed up after ten months to study the consistencies and inconsistencies in their cognitive and motor functioning. In the third phase, a play intervention programme was conducted on a sample of infants in the range of 9-15 months from the lower economic level where the performance of one experimental group of infants (N=20) was compared with a control group of infants (N=30). A representative sample of 6-24 months old infants (N=512) was drawn from neighbourhoods composed of people at various economic levels in Delhi.

The research tools used for the assessment of infants were: (1) Modified Bayley’s Scales of Infants Development. (2) Nutritional and health status measured by five anthropometric measurements and a 24 hours recall method of food intake of children. (3) A three point rating scale for assessing the maternal affiliation and cognitive stimulation, the mother provided for her
infants, and (4) An open ended structured questionnaire for the mother to elicit information in the family, details of the child's birth history, feeding patterns and information about the use of facilities and mass media, t-tests were carried out and correlation matrices were calculated.

The major finding were: (1) For PDI (Psychomotor development Index) in various age groups 't' values between lower and upper, and lower-middle and upper socio-economic levels were significant for all age groups except for the youngest age group (6-9 months) (2) Children from the upper socio-economic level in the 18-21 and 21.25 months age groups performed significantly better on MDI (Mental Development Index) than their counterparts in the lower-middle and low socio-economic levels. (3) Cognitive development in infancy as indicated by MDI was not related to nutritional status. However, motor development indicates by PDI was related to nutritional status. (4) In respect of maternal affiliation, there was a trend towards increasing MDI with higher affiliation, although these differences were not significant. (5) The invention groups had significantly higher scores on all component of the Infant Behaviour Record.

M. Khalakdina and Sudha Phogat (1982) conducted a study entitled "Evaluation of impact of ICDS services on the benefits in the selected blocks of Haryana state". The study was undertaken to assess the impact of: (1) Health and Nutrition
services on the status of children. (2) Pre-school education on the developmental status of children. (3) Functional literacy programme on the information and level of knowledge of ICDS value beneficiaries.

The study was conducted in the rural ICDS block Kathwa and in the non-ICDS block Lathanmajra in Haryana. From each block two comparative villages were selected and from the selected villages a multistage sample was drawn. The sample comprised 30 children in the age group of 4-6 years and 32 women in the age group of 14-44 years from ICDS block and an equal number from non-ICDS block and the total sample comprised 60 children and 64 women. The children of both the areas were matched for sex, caste, age and the women for age, caste, marital status and educational level. Nutritional and health status of the children was assessed by using weight-for-age index and by physical examination. Pre-school abilities were assess on the basis of a contrived and non-standardized schedule with items based on Piagetian Scheme of cognitive development. The knowledge of the women regarding mother and child care, family planning, health, nutrition, civics, welfare, literacy and numeracy was assessed by using a non-standardised unstructured interview schedule.

Major findings: (1) The analysis of the data showed that there were no significant differences in the health and nutritional status and pre-school abilities of children in ICDS and non-ICDS
areas. In both the areas there were 50 percent normal and 50 percent mal-nourished children. (2) There was no significant difference in the level of knowledge of women in both ICDS and non-ICDS areas. However literacy and numeracy knowledge of ICDS women was better than that of non-ICDS women.

Sandeep, P., (1982) studies "Classroom interaction and cognitive development in primary school children". The basic objectives of the study is to assess and ascertain the way different types of pre-schools function in furthering the objective of education in general and individual children's growth in particular especially in cognitive domain consisting of: (1) Perceptual Re-organisation (2) Perceptual Schematisation (3) Spatial Orientation, topological, projective and Euclidean space orientation. Piaget's theory was the basis premise for the study. 63 children in the age range of 5 to 10 from the Grade I (57), Grade IV (206) and Grade V (200) were studies. The sample came from the Government aided Kendriya Vidyalaya and Private Montessori Pre-schools.

As far as perceptual activity schematization is concerned even at 12 years, parts and wholes are not perceived simultaneously. On topological space, our children were lagging 1.0 to 1.5 years behind Piaget’s sample and white children (Dr. Lemo’s sample) but were far better than Zulu children. On projective space dimension, our children were found to be far behind Swiss, white and more or less similar to Zulu children. In
Euclidean space our children were less successful than Swiss children. However, they did not differ much from the white children. School emerged as the only variable, which was significantly contributing for the difference in the development of both perceptual activities and spatial orientation.

Shukla, R. (1984) Conducted a study on social competence of five to six year old children in relation to the family structure and pre-school background.

The study was designed to determine the effect of the structural composition of the family, ordinal position of the child, school environment and socio-economic status on the social competence of children.

The sample for the study consisted of 100 children drawn from eight pre-basic pre-schools of Lucknow. The data regarding social competence were collected with the help of Social Behaviour Check-List originally written by Danier Ogilbie and Bernice Shapiro and with an appendage by Jane Attanucci and Barbara Kaben. For assessment of intelligence, the Board form of Raven's Progressive Matrices Test (coloured series) was administered to the students. Information regarding family composition was collected with the help of family information form. With the help of an unstructured interview schedule, responses from the mothers about children's interaction with adults and sibling at home were collected.
The main findings of the study were: (1) Family Structure did not have any effect on children’s ability for social interaction. (2) Family size did not have any effect on social competence of children. (3) Presence of grandparents did not have any effect on the social competence of children. (4) Ordinal position of the child did not have any effect on the social competence of the children. (5) Both rewards and punishment had effect on social competence. (6) With age the students acquired greater social competence.

Kanthi, S. and Sushila, S. (1985) studied the “Influence of ICDS scheme on the problem solving ability of children.” The study was conducted in 11 urban ICDS blocks and five non-ICDS blocks in Madras city. The sample comprised 120 children of two years of age, of which 60 were from ICDS block and 60 from non-ICDS area. This age group was selected because only during this period the child manifests the essence of the problem solving behaviour. The problem solving ability of children was assessed by an apparatus devised by Koslowski and Bruner (1972). Each child was given 10 minutes to pick up the toy without moving from the prescribed spot and all his responses and time taken were noted down. The date was classified according to the success and non-success of the task and the scoring was based on a technique developed by Koslowski and Bruner.
Major findings of the study were: (1) ICDS had definite impact on the problem solving ability of the children. The average time taken for the successful completion of the task was 4.7 minutes for ICDS children and 6.2 minutes for non-ICDS children. (2) The level of achievement of children in ICDS group was 12.2 and in non-ICDS group it was 7.2.

M. Zaheer et. al. (1985) conducted a study entitled “Acceptability and impact of various components of ICDS scheme in different socio-economic groups”. The objective of the study was to find out the impact of ICDS by assessing and comparing the nutritional level and immunization status and mental development of children belonging to the lower socio-economic class with those belonging to higher social class.

The study was conducted in the rural ICDS block Jawan and in the non-ICDS block Haruagang, District Aligarh, Uttar Pradesh. Two villages from each block were randomly selected. All the children in the age group 6-8 years from all the four villages were included in the sample. Thus 114 children from ICDS and 108 from non-ICDS area comprised the sample. The social class of the children from ICDS and non-ICDS areas was assessed by using Kuppu Swamy’s classification. Their nutritional status was assessed by anthropometric examination and immunization status by its record given by the parents and physical verification of the BCG scar, Reven’s coloured
progressive Matrices Test was used to test the mental development of children.

Major findings were: ICDS programme was well accepted by lower social classes. It was found that only 60 percent children from social class II and 63.3 percent from social class III were attending the Anganwadis as compared to 82.1 percent belonging to social class IV. None of the children included in the sample belonged to social class I and V.

Rajammal P. Devadas et.al. (1985) studied the "Physical and motor development of children in Anganwadis." The study was conducted in six Anganwadis covered under the urban ICDS block Coimbatore II, Tamilnadu. A sample of 10 children in the age group 3-5 years with an equal sex representation was selected randomly. Interview schedule was developed to collect informations regarding the family background of the children. Anthropometric measurements were taken in terms of height, weight, mid-arm, chest and head circumference to assess their physical development. Their motor abilities like standing, walking, running, etc. were tested by standardised tests given in Portage Guide to Early Education Development by Bluma et. al (1976).

The major findings were: (1) It was found that anthropometric measurements of the children were higher than ICMR standard. However, the mid-arm circumference of both the
sexes was slightly lower than ICMR standard. (2) The t-test values for height, weight, arm, chest and head circumference showed that these values for five years old children were significantly greater than the three years old children at one percent level. (3) The performance of 3-4 years old children in the area of ball play was better as compared to children in the age group 4-5 years. (4) With increase in age, children of both the sexes showed improvement in standing, walking running, skipping, hopping and jumping.

Mistry, V., Kaul, S., Dhar, H. (1986) conducted an in-depth study on non-formal pre-school education component of the ICDS project.

The specific objectives were: (1) To compare the development of children from highest and lowest ranking Anganwadis. (2) To compare the performance of the children exposed and not exposed to the ICDS pre-school programme. (3) To compare the awareness and involvement of mothers in childcare and development of children coming from highest and lowest ranking Anganwadis.

On the basis of the assessment made through the investigator’s observation pro-forma used in general monitoring all the Anganwadis under study were ranked on a continuum. Based on the ranking two Anganwadis were selected on two extreme polarities, i.e. the highest and the lowest ranking
Anganwadis. A total of 60 children in the age range of 3-6 years from the above Anganwadis were selected and compared with 20 children who had no exposure to pre-school education.

The major findings were: (1) both the exposed groups performed almost at equal level in all the aspects of development and there was not much difference in the performance of children from Anganwadis at the two extreme polarities. (2) The impact of the Anganwadis experience on the exposed children was significant. But the impact was not dramatic. (3) In relation to primary education the trend was in favour of the exposed group. But it was evident that, to have a lasting effect, there was a need for developing linkages between pre-school experience and primary education and for improving the quality of schooling as well as community based services.

Sahni, S., Agarwal, S., (1986) conducted a study of an intervention in ongoing ICDS programmes to promote cognitive abilities of pre-schoolers.

The objectives of the study were to determine the knowledge and skills of Anganwadis children drawn from the five villages of Hissar Block II. Close ended inventories were used to assess the knowledge and skills of Anganwadis workers and a test of cognitive development by Bishnoi was used to measure cognitive abilities.
The major findings were: (1) There was significant differences between pre and post intervention in the knowledge and skills of anganwadi workers and also in the cognitive abilities of children before and after intervention. (2) In addition, analysis of the data also showed that a majority of children in the anganwadi were males and belonged to well-nourished homes having an annual income between Rs.15,000 and Rs.25,000.


The objective of the study was to examine the relationship between indices of physical development and indices of language and cognitive development in the tribal pre-school child. The indices of physical development were height, weight, mid-arm circumference, head circumference. The indices of cognitive development were: shape and colour discrimination, time perception and sequential thinking. The sample consisted of 144 children from Anganwadis of Madhya Pradesh.

The results indicated: (1) All test scores in language and cognitive development were significantly correlated with height and weight of children. (2) No significant correlation between mid-arm circumference and language test scores was found. (3) A significant positive correlation was found between colour discrimination and sequential thinking and head circumference.
On the whole, it may be said that there did exist a positive correlation between physical development of children and their development in language and cognitive areas in the three age groups.

In the second part of the study it was observed, whether educational intervention on heavier children as compared to lighter children, and taller children as compared to shorter children had any effect or not. A pre-test, post-test experimental control group design was used. From the experimental and control group, those children who formed the two extreme groups in height and weight were focused upon to study the effect. The sample comprised 16 heavier and 16 lighter children, and 16 taller and 17 shorter children in the experimental group. The control group consisted of 17 heavier and 18 lighter children, and 18 taller and 17 shorter children.

The results showed that no matter whether the children were tall or short, heavy or light, the experimental group children made positive gains in language and cognitive tests after educational intervention. The control group too made some gains which was expected due to maturation.

Mayers, R. G and Hertenberg (1987) found that the value of early childhood programming went far beyond the children and extended to the care givers and community. It was therefore, important that early childhood programming should not restrict
itself to children alone but should extend to the family and community as a whole. There is also increasing evidence that since the needs of women and young children intersect, programming for one should not be done in isolation from programming for the other.

Geeta, K., (1990) conducted “A study of knowledge and competence of Anganwadi workers as agents for child-care in urban slums of Triputi ICDS project”. The sample consisted of 45 Anganwadi workers who attended a monthly meeting of the urban ICDS block in Tirupati. The tolls used questionnaires to assess knowledge and competence of the Anganwadi workers. The major findings were that almost all the Anganwadi workers had above seventy five percent knowledge in the areas of ICDS and 80% of them were found to be highly competent. This of course speaks well for the project of Tirupati but the methodology of using a questionnaire to assess the competence of the workers was certainly not a good choice.

Nagalakshami, J., (1991) conducted a study on “Establishing the essentials for pre-school stage.” Aimed to study the effects of groups size, space and play equipment and staff-child ratios on behaviour of children and thereby arrive at an “ideal” requirement for pre-schools. Nagalakshmi’s sample of pre-schools was drawn from three different towns of Andhra Pradesh and included 529 pre-schools in all. She used time sampling technique in conducting the observation and combined it
with personal enquiry. The study arrived at general recommendations such as the need for encouraging active play and co-operative play, making provision for adequate play equipment and improved staff-child ratio.

Yashodhara, P. (1991) conducted a study on “Attitude of parents and teachers towards various aspects of pre-school education.” Work pertained to a study of the attitude of parents and teachers with regard to the objectives and curriculum of pre-school education and the priority groups of children in need of pre-schooling. She used questionnaires for parents and teachers and she found that there was a need to educate them as they did not have a clear idea regarding the purpose of pre-school education and their role in the children’s life.

Datta, Vrinda (1992) studied group care as a context for child development. A comparative study of family day care centres and regular day care centres of Bombay was done. Her sample consisted of 80 children each from family day care centres and regular day care centres 40 from low quality centres and 40 from high quality centres. She used tools such as day care centre environment rating scale, interview guide for care givers and questionnaire for parents. Some of the major findings were that there was an edge in favour of family day care centres, particularly in terms of hygiene and that the group size has an impact on the quality of the centres.
Kaul, Venita, Ramachandran, Chitra and Upadhyaya, G.C., (1992) studied the impact of ECE on retention in primary grades. The study attempts to assess the impact of early childhood education on the retention of children in primary grades. The sample was drawn from the primary pre-schools located near the ECE centre in eight States. The total sample consisted of 31, 483 children, out of which 10, 636 children had ECE experience whereas 20, 847 children were admitted indirectly from home. Each court of children was identified state-wise and year-wise, and followed up from 1983-84 to 1986-87. The tools used in the study included information blanks and master-sheets to record data. The data were analysed using percentages.

**Major findings:** (1) children with ECE experience were found to have a better retention in comparison to children who had direct entry in the pre-schools. The difference in percentage of the two groups was higher in favour of ECE children by 16.4, 205, 13.33 8.04, respectively, for cohorts. I, II, III and IV. (2) The drop-out rate for ECE group was less (31.8%) than that for the direct entry children (48.2%). (3) The maximum drop-out was when children moved from grade I to II. (4) the impact of ECE experience on retention in primary grades was greater for girls as compared to boys.

Rawal, U., (1992) conducted a study entitled “An attempt in programme evaluation of a model remedial pre-school. It was a programme evaluation of a model remedial pre-school outside the
ICDS context. The first one through questionnaire distributed to prize winning teachers and the Heads of pre-schools and Field Advisors of the NCERT, who conducted these competitions at the state-level. At the state-levels it was seen that the involvement of the district level staff was absolutely vital for the success of the programme.

Seth, Kanta and Ahuja, Kavita, (1992) Conducted a study on "Minimum specifications for pre-schools. The aim of this study was to specify the essential and desirable prerequisites for a quality pre-school programme, keeping in view the contextual realities of the country. The method followed was to prepare the draft document and present it in a series of workshop to experts in the field so as to finalise it and circulate it all over the country. The document spelled out the requirements in terms of physical facilities, equipment and material, safety precautions, the pre-school staff, age for admission, admission procedure, pre-school programme, records and registers. This is a useful document which need, to be tried out in different contexts, primarily with the objective to see whether a quality programme can be ensured of the given prerequisites.

Srivastava, Sushila (1992) conducted "A short term longitudinal study of the impact of exposure to the science oriented educational toys on the concept and language development of the pre-school children. Study had a larger sample drawn from different types of pre-schools. She introduced
Science-Oriented educational toys into the pre-school programme and studied their effect on concept formation in children.

2.3 STUDIES CONDUCTED ABROAD

The International Encyclopaedia of Education reported three waves of research on child care and pre-school education (Crahay, M. 1994). The first wave primarily consisted of American researches studying the effects of pre-school education, many of which yielded the finding that pre-school intervention could have lasting positive effects. The second wave of studies focused on comparative evaluation of the different models of pre-school programmes but these studies did not yield any conclusive evidence. Presently, the contemporary third wave studies therefore tried to find out an answer to what really happens in different child-care and pre-school settings. The evidence is slowly accumulating to the effect that pre-school intervention helps in fostering child development but the multiple and complex factors that influence it may vary from one context to another.

Engel, P., (1986) in a research review discovered that variables such as mother’s positive self image, knowledge of the culture and practical know-how contribute to the child’s well being.

Analysis of the impact of the Head Start Programme (HS) on the cognitive and socio-emotional development of children. All identifiable studies of HS effects were examined for their utility, and 76 met the requirements for computation of effect sizes. Results show strong immediate treatment effects on cognitive and socio-emotional tests. These effects decline after the end of the HS, showing no effect 2-3 years afterward. Measures of school success retention in grade and assignment to special education classes show fewer HS children being retained or placed in special education classes although interpreted as showing the potential of HS for producing lasting effect but also the need for programme enhancement support for children during & after the transition to elementary school.

Swiecicka. Ewa-M. and Russell. A, (1991) conducted a study on the “Play preferences of pre-school girls and boys and studied the effects of programme structure and teacher participation.”

They examined differences in the play activities of pre-school children under conditions of relatively high and low programme structure. The Ss were 259 girls and 286 boys (aged 4-5 years) from 26 Australian pre-schools and 72 of their teachers. Results indicate that (1) Children in high structure programmes spend more time on what teachers would perceive as educational activities. (2) Children in high structure programmes are slightly
more oriented to adult organized and led activities, while children in low-structure programmes are more oriented to self-initiated activities and peer interactions. (3) Children (especially boys) in low structure programmes are more involved in outdoor play, much of a gross motor kind.

**Marcon, Rebecca, A (1992)** studied the “Differential effects of three pre-school models on inner-city 4 years olds.” in United States. Compared the effectiveness of child initiated (CI), academically directed, and middle of the road (MOR) pre-school models operating in a large, urban school district. The social, motor, language, and adaptive development of 295 children aged (48 to 67 months) randomly selected from classrooms employing these models was compared along with mastery of basic skills. The Vineland Adaptive Behaviour Scale and the school districts early childhood progress report were administered to each school. Ss in the MOR model did significantly worse on all measures except daily living skills than did Ss in CI model or Ss in the CI model demonstrated the greatest mastery of basic skills. As a group the Ss did even better than Ss in programme where academics were emphasised and skills were taught.

**Fuller, B., and Clark, P., (1994)** conducted a study on “Raising school effects while ignoring culture?” Local conditions and the influence of class room tools, rules, and pedagogy. The results indicated that the early education field lags decades behind the school effectiveness field where a variety inputs, classroom
processes and teacher attributes have been related to child outcomes in literally hundreds of studies.

Kamerman, S.B., (1994) indicated in the international overview of child care polices and programmes that all European countries were moving towards universal coverage of pre-school children in the 3-6 years age group though publicly funded programmes focussing on developmentally appropriate programming. These countries view early childhood education as public responsibility and as an entitlement for children, and efforts are being stepped up to expand the programme to cover the whole court. Yet quality differences in terms of group size, adult child ratio, staff qualifications, etc., do exists between countries. A growing trend is also seen to ensure safe infant care for the under threes by extending parenting leave in some form or the other.

Book Cock, Sarane, Spence (1995) conducted a study in United Sates on “Early Childhood Programmes in Other Nations: Goals and Outcomes”. Fifteen studies conducted in Australia, Canada, Colombia, France, Germany, India, Ireland, Japan Singapore, South Korea, Sweden, Turkey & the U.K. that documents how participation in early childhood programmes influence children’s later development and success in pre-schools are reviewed and features of each nation’s programmes are described. The International Research reinforces conclusions from the research, that attendance at pre-school regardless of
programme model is associated with cognitive, and special benefit to disadvantaged children.

**Combay, D., et. al (1995)** conducted a study (in United States) on “Long term outcomes of Early Childhood Programmes: Analysis and recommendations.” It showed that cognitive gains by children in such programmes converge with those of control children in the school environment. Children in Early Childhood Programmes (ECPs) are less likely to be placed in special education classes or retained in grade and are more likely to graduate from high school. Research on social outcomes, health outcomes and effects on parents is summarised. It is suggested that the dramatic positive effects of ECPs initiated 20-30 years age are not found in more recent programmes due to lack of funding in societal changes. Recommendations include that funds be allocated to ensure availability of full day, full year and full service ECPs for all disadvantaged children. Policy, practice and research for children & parents should be unified or co-ordinated to stretch scarce resources and reduce confusion.

**Gordon and Chase Landsdale (1999)** Studied “Women’s participation in market work and availability of child care in United States.”

They found that typical zip codes in both low and high income areas nation-wise have 25-25 pre-school age children for each operating centre, compared to 75-85 children per centre in
middle income zip codes. In non-metropolitan areas they found that scarcities were more severe for both low and middle-income communities.

**Hofferth, S., (1999)** studied changes in American Children's time. In parallel fashion, the growth of pre-school and child-care organizations also stems from rising parental demand. In the last half century the share of mothers with pre-school age children working outside the home climbed from fifteen percent to sixty five percent.

### 2.4 A CRITIQUE

The above mentioned studies highlight some of the researches directly or indirectly falling in the area of pre-school education and child development. Studies advocated early childhood education in global terms and more-specific in their reporting, emphasizing the psychological aspects of a young child's development. On the whole the literature in this category is largely ideological and theoretical in nature, making a strong case for early childhood education.

All the literature reviewed under this category cannot be termed as research, in the true sense of the term. Literature consisting of theoretical papers, papers presented at seminars and reports of government or welfare boards are also covered.