

Pre-Primary Education

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INTRODUCTION

The subject of Early Childhood Care and Education (ECCE) received comparatively greater attention due to changing global trends and challenges. Current trends of Education for All (EFA) and the role of ECE as a support programme for EFA have led to generating more interest in programmes for pre-school children. This is primarily because of the accumulating scientific evidence that powerfully demonstrated the importance of the early years of the child's life for subsequent development and the high development cost of inadequate care. Added to this, is the current trend of constant migration of people from rural to urban areas, the break-up of the joint family system and mothers' employment outside the homes which have necessarily altered the age-old child care practices and created a need for institutional care and education for the young child.

The three major international events in recent years that helped to focus attention on the young child were the Convention on the Rights of the Child, the World Conference on Education for All and the World Summit for Children. The Convention on the Rights of the Child (1991)—currently ratified by 127 countries, including India—promoted the value of the family, the principles of joint and shared parental responsibilities and the defence of children's rights within a context of gender equality. The World Conference on Education

for All (1990) laid stress on the fact that learning began from birth and pointed out the need for expansion of services for young children, particularly for the disadvantaged and disabled, while the third event, the World Summit for Children (WCEFA 1990), made a plea to the countries to make adequate investment in programmes for child development and education.

These international events made their impact on the national scene too. The Plan of Action (POA) 1992 contained a separate write-up on ECCE and spelled out the details of the future plans in the area. The National Policy on Education (1986), on which the Plan of Action 1992 was based, viewed ECCE as a human resource development programme as well as a feeder and support programme for primary education and as a support service for working women of the disadvantaged sections of the society. While pointing out that the Integrated Child Development Services (ICDS) was the major national scheme for pre-school children, the POA also stressed the need to experiment with more innovative models such as the home-based programme, family day-care centres, etc. The other aspects which were highlighted in the POA was the content and process of ECCE, the training of personnel and monitoring and evaluation.

Apart from the preparation of POA, the other major events in the national scene in ECCE included taking up experimental studies in

alternative models of ECCE such as home-based programmes, using educational technology (radio) for fostering child development, family day-care centres, etc. This period also witnessed the development and try-out of a variety of materials for children, teachers and teacher-educators under the NCERT's Project Early Childhood Education/Child Media Laboratory (ECE/CML) in different languages. The other important events during the period under review were the initiation of a national evaluation study of ICDS by NIPCCD, an impact study of ECE

on retention of children in the primary classes by the NCERT, evolving a scheme for monitoring of the pre-school education component in ICDS by NIPCCD, development of a simple tool for assessing early child development by the National Institute of Nutrition (a WHO-ICMR study) and development of a simple tool for screening for mental retardation by the National Institute for the Mentally Handicapped. All these were research studies which resulted in a better understanding of the impact of ECCE programmes.

Table 1
Area-wise Distribution of Research Studies

Area	1956-87*	Fourth Survey 1981-87**	Fifth Survey 1988-1992
History, Need, Status	31	4	5 (all status studies)
Development Aspect and Personality Traits	24	4	4
Parent and Community Involvement	6	3	-
Assessment of Children	6	-	-
Training of Personnel and Study of ECCE Workers	7	4	4
Intervention and Impact	19	11	15
Handicapped Children	5	3	-
Alternate Models	-	-	2
Preparation of School Readiness Kit	-	-	1
Adult Child Interaction and Attitudes	-	-	3
Establishing the Essentials	-	-	2
Programme Evaluation	-	-	8
Miscellaneous	-	-	2
	98	29	46

* Verma, Amita and Mohite, Prerana. 1991. "Research in Early Childhood Education: A trend report". In M.B. Buch (Ed.) (1991) *Fourth Survey of Research in Education*. New Delhi: National Council of Educational Research and Training.

** This is culled from the Fourth Survey trend report only, but confining the data to the years 1981-87.

The purpose of this brief introduction was to acquaint the reader with the major highlights in the ECCE scene during 1988-92. The aim of this paper is, however, much more specific: to discuss the research trends in ECCE. While the Fourth Survey in ECCE examined the research activities for a period of 35 years and identified 98 researches (abstracts were given only for 38 studies), the present survey confined itself to a period of five years and has thrown up 46 studies (all abstracted) showing thereby that there is an indication of growing interest in this area among the researchers.

The Fourth Survey divided the studies into seven areas as shown in Table 1. To ensure continuity and for purposes of comparison it was decided to stick to this format and add on new areas if necessary.

As evident from the table, the focus of interest has been on impact and intervention studies. This is only to be expected as during the period under review, programmes for pre-school children, particularly ICDS, have been stepped up considerably and many researchers got interested in either examining the impact of the programme or studying the effect of special intervention programmes on Anganwadi children. So the trend seen from 1981 continues in the present period, also. In the other areas, too, the trend is the same, namely in status studies, developmental aspects and training of personnel. Some new areas which emerged in the present period are programme evaluation, adult-child interaction and attitudes, alternate models and establishing the essentials for a pre-school. The new area, programme evaluation, needs to be noted. The large expansion of ICDS programme demanded an evaluation of what it does to the beneficiaries and it is in the fitness of things that a fair amount of studies have been reported in this area. No study has been reported on handicapped children, parent and community involvement and assessment of children. It is however possible that these studies got included

under other themes and therefore got omitted from this chapter. As stated earlier the attempts of the National Institute of Nutrition in collaboration with ICMR-WHO in developing a simple screening tool for the psycho-social development of pre-school children and the attempts of the National Institute for the Mentally Handicapped in developing a tool to screen for mental retardation, were noteworthy during the period under survey. Similarly, a good deal of monitoring tools were developed by the National Institute of Public Cooperation and Child Development (NIPCCD) for purposes of monitoring the pre-school education component in the ICDS programme. The NCERT too developed a whole set of monitoring tools for monitoring the ECE project at the State levels. Many of these tests/tools have found their place in the international survey that was conducted by UNICEF.

RESEARCH TRENDS IN INDIA

The next section of the report deals with a discussion of the studies categorised under different themes. As stated earlier, the pattern of categorisation followed is kept the same as was followed in the Fourth Survey primarily for the sake of continuity and comparison but new areas are added as and when necessary.

History, Need and Status Studies

Five studies are reported in this area, all of which are status studies. Three of these studies are state-level studies: Maiyani, J.P.'s (1989) study on development of pre-primary education in Gujarat from a historical perspective, Pankajam, G. et al.'s (1990a) study on child-care services in Tamil Nadu and Rajalakshami, M.'s (1992) study of the assessment of nursery education in Kerala. The other two are city studies, Mishra, D.'s (1990) study of the problems of pre-school education in Cuttack city and Sharma R.'s (1992) comparative study of aided and unaided pre-schools of Pune city.

The quality of these studies vary, some being rambling and unfocused, while others had a sharper focus. The study in Gujarat came to the conclusion that despite quantitative expansion of pre-school education, the present set-up was not satisfactory in terms of curriculum and teacher training, while the study in Kerala pointed out that physical facilities needed to be improved and a more uniform curriculum needed to be introduced. The study in Tamil Nadu however showed that the child-care services of children in the age-group of 2-5 years were impressive, as the State had achieved a minimum level of provision for all children; the State now needed to pay more attention to the under twos and also to improving the quality of training of the child-care workers.

Both the city studies found a prevailing over-emphasis on formal learning and evaluation and emphasised the need to introduce more play-way methods. Small-sample studies undertaken in other cities like Delhi, Bombay, Hyderabad, Chandigarh, Bangalore, etc., have also shown that pre-schools are run as mere downward extensions of primary schools and that children are under pressure to cope with formal skills such as reading, writing and number work. The situation is grave and it needs to be looked into on a priority basis. The report of the Yashpal Committee has spelled out the trauma that the children are facing. Steps are being taken by the NCERT as well as the professional organisations like the Indian Association for Pre-school Education (IAPE) as well as Organisation Mondiale Pour L' Education Prescolaire (OMEP) (The World Organisation for Early Childhood Education) to place the issues before the schools and to convince them about the necessity to introduce play- and activity-based learning in the pre-schools. A fair amount of success has been achieved in getting schools to do away with admission tests for children and getting them to use alternate methods for screening. There is still a long way to go but a

beginning has been made in this direction.

Developmental Aspects and Personality Traits

Three studies are reported in the areas of developmental aspects and personality traits. These include a study of behaviour problems of pre-school children and the effect of behaviour modification techniques on aggressive pre-school children attending Anganwadi centres in Chandigarh by Devi, B. (1990); Murthy, V.'s (1992) investigation into the scholastic readiness of pre-school children of Bombay; and Singh, A.'s (1987) study of language development of two- to three-year old children of Allahabad. As evident, the studies conducted in these areas are limited in number. They focused on different aspects of development and therefore no common trend can be elicited. It is obvious that more studies need to be taken up to study aspects such as cognitive development, particularly in thinking and reasoning skills, memory, etc., and in social development including leadership skills, beginnings of prejudice, etc. The play is another area where more information is required. The play patterns of pre-school children, gender difference in play, play and its effect on the personality development of children, etc., need to be looked into. We also need more in-depth studies on specific groups of children such as tribal children, bilingual and multilingual children, etc. How deprivation and malnourishment affect the pre-schooler's development is another area that needs to be studied more systematically.

Training of Personnel

Only two studies are reported in this area, one by Khosla, R. (1991) on the evaluation of the refresher course in pre-school education for the Anganwadi workers, and the other by Muralidharan, R. and Pankajam, G. (1988) on evaluation of different models of pre-school teacher training from the point of view of their impact on children. The latter study was

reported in the Fourth Survey, too, but probably found its way into the present survey because of the date of submission of the report. Both studies were methodologically sound and answered questions that are relevant to pre-school teacher education. Khosla, R.'s (1991) study showed that refresher training in pre-school education was beneficial to Anganwadi workers both in terms of organising activities for children as well as in involving the helpers and mothers in the programme. In spite of such findings, it was later decided by the administrators to do away with the specialised course in pre-school education and introduce a more generalised refresher course. Such decisions make one wonder about the usefulness and scope of such evaluative studies. The second study may be looked at from a historical perspective. Tamil Nadu is a state which has a long history in pre-school education as well as pre-school teacher education. The state experimented with different models of pre-school teacher training and it was appropriate to look into the effectiveness of these models, primarily from the point of view of children's development.

It does not stand to reason why only two studies are reported in this important area, considering the fact that the quality of pre-school education depends primarily on the strength of the teachers. It is obvious that this area is a totally neglected one. More studies need to be conducted on teacher training, particularly from the point of curriculum, training methodology and the competence of the teacher educators. The country offers different models of ECCE pre-service training at different levels beginning from grass-roots-level training of Anganwadi workers to the postgraduate diploma in ECCE. In addition, many institutions conduct in-service training. There are also models of distance training in ECCE being followed in the country. It is therefore important that methodologically sound studies are conducted in this area so that more meaningful information will be available.

Impact and Intervention Studies

The maximum number of studies have been reported in this category. Due to the rapid expansion of pre-school programmes like the ICDS, many researchers probably got interested in this type of research as it gave them a ready-made laboratory for either intervening or for measuring impact. Nine impact studies and five intervention studies have been reported during this period.

As regards the impact studies, they are varied in nature, some studying the impact of pre-school experience right at the pre-school stage itself while others studied the impact at the primary school stage, and a third type traced the impact right up to the pre-adolescent and adolescent stage. Except for Chandrika, D.C.'s (1989) study, all other studies showed a positive impact, while Chandrika found no difference between children who had the Anganwadi experience and those who did not have such experience, with reference to their cognitive development at 6-7 years of age, in Tirupati. A study the one out in this group of impact studies, is that done by Kaul, V. et al. (1992) on retention in primary schools. It is a tracer study done in different States on underprivileged tribal and rural children who had pre-school experience of fairly good quality. It was seen that good quality pre-school experience led to improvement of the retention rate at the primary stage. This study is significant particularly at this stage when the country is struggling to meet the target of universal elementary education. Another study which was also a follow-up study was by Muralidharan, R. et al. (1992) on the children of Bastar. These children had some enriched Anganwadi experience about ten years ago and the study attempted to trace these children to see how they were faring in the primary school. It showed that approximately 50% of children was attending the primary school but only 30% were in the right classes. The quality of learning was also

found to be low. The other studies which measured the impact of pre-school experience at the primary stage were those done by Mandke, S. (1989) and Pattanaik, A. (1991). Mandke, S. (1989) examined the learning readiness of Class I children while Pattanaik, A. (1991) studied the cognitive development of children in Classes I to III. While Pattanaik, A. (1991) and Mandke, S. (1989) got positive results, Pattanaik, A.'s (1991) study yielded results in favour of pre-schooled children in only ten out of twenty-six tasks.

The two studies which looked into the impact at the pre-adolescent and adolescent stages were by Tripathy, A. (1991) and Jachuk, K. (1990), both studying cognitive development. Both are more or less similar studies done in Bhubaneswar yielding the finding that pre-school experience helped in developing the cognitive abilities of children and that the influence was long-term and persisted upto the adolescent stage.

Pandey, H. (1989) also studied the impact of pre-school experience on the cognitive development of children but she concentrated at the pre-school stage itself. Pandey, H. (1989) studied children with and without Anganwadi experience, and found that pre-school/Anganwadi experience helped children in their cognitive development.

Thus, by and large, the impact studies showed that pre-school experience helped children in their development. However, more studies are required in this category, particularly in areas such as socio-emotional and language development. Well-planned longitudinal studies should throw more light on what early childhood stimulation does to the total development of an individual.

Intervention Studies

The intervention studies conducted are only six in number. Almost all studies focused on intervention to foster cognitive components in children: Hejmadi, A.'s (1991) study on intelligence and creativity, Manju, Vani E.'s

(1986) study on perception, Mishra, S.'s (1991a) on intelligence and curiosity, Srivastava, S.'s (1992) on concept formation and language development, Kaul, V. et al.'s. (1992) on number readiness and Subhashini, T.'s (1990) on readiness in reading, writing and arithmetic. All studies except that of Srivastava, S. (1992) and perhaps to some extent that of Subhashini, T. (1990) were done on small samples and each of them proved the effectiveness of intervention for fostering specific developments in children. Srivastava, S.'s (1992) 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. No study was reported on any aspect other than cognitive development. What kinds of intervention are required in fostering socio-emotional aspects of development, is a question that is yet to be answered.

Programme Evaluation Studies

Next to impact and intervention studies, come the programme evaluation studies. Eight such studies were reported, six of which pertained to ICDS. The major studies in this category were undertaken by NIPCCD. The national evaluation of ICDS was an important hallmark which yielded some good insights into the functioning of this giant programme. It was a mammoth study, the sample consisting of 100 ICDS projects from 98 districts spaced over 54 rural, 28 tribal and 18 urban projects; from each project seven Anganwadis were selected at random. The study used four schedules, for households, beneficiaries, community leaders and functionaries. Some of the major findings were that while the positive impact of ICDS was visible in terms of health, nutrition and education of children, there was a need to upgrade physical infrastructural facilities of Anganwadis, to strengthen the training of the functionaries, to improve pre-school education by providing appropriate aids and materials and

to strengthen the components of community participation.

The next important study was Sood, N.'s (1987) Appraisal of Pre-school Education in ICDS. In fact the other studies, Mistry, V.; Kaul, S. and Dhar, H.'s (1989) in-depth study of Baroda urban block and Sood, N.'s (1987) evaluation of Mangolpuri block form parts of this total appraisal. In addition, the appraisal study was done in three more projects: Jama Masjid, Junna and Coimbatore. This study was taken up with the aim of developing a system of monitoring the social components of ICDS and following a common research design. From each project, 64 children in the age-group of 3-6 years drawn from the highest-ranking Anganwadi (HRA) and the lowest-ranking Anganwadi (LRA) formed the ICDS sample while a matched group of a minimum of 10 children with no exposure to pre-school education formed the non-ICDS sample. The mothers of all these children were also included in the sample. In addition, a sample of 40 children who had Anganwadi experience and were at present enrolled in Classes I and II and a matching group of 20 children studying in Classes I and II but without any Anganwadi experience were also studied in each project. The pre-school children were developmentally assessed while the primary school children were assessed through rating by their teachers, and mothers' awareness was assessed by interview schedules. Some of the major findings were that while the overall developmental status of ICDS group was superior to that of the non-ICDS children, the superior performance of the HRA groups as compared to that of the LRA group showed that it was not the mere exposure to Anganwadi but the quality of input which was important in bringing about a significant raise in the developmental status of children. This study is an example of how collaborating institutions can pursue a study following a common research design, yet giving each collaborator freedom to put the extra inputs if desired. For a large country like India, such studies involving inter-centre collaboration, are vital as such

collaboration yields more reliable and meaningful results.

The next study on ICDS is a study to establish a monitoring system, undertaken by Sharma, A. (1992) in the districts of Bhiwani and Adampur in Haryana. It showed the need to integrate information regarding all aspects of ICDS at one place to give a holistic picture of ICDS implementation.

The other two studies, one by Muralidharan, R. and Upadhyay, G.C. (1992) on an evaluation of Toy Making Competition for pre-school and primary school teachers and the other by Rawal, U. (1992) on programme evaluation of a model remedial pre-school are outside the ICDS context. The first one through questionnaires distributed to prize-winning teachers and their heads of schools and Field Advisors of the NCERT who conducted these competitions at the state-levels showed that the involvement of the district-level staff was absolutely vital for the success of the programme. Rawal, U.'s (1992) study is different from all other studies as it restricted itself to the programme evaluation of one single school and as such is not comparable to the other studies in this category.

It is heartening to see the trend of setting up studies for programme evaluation. With the expansion of child-care programmes, such studies should prove useful in helping the policy planners to gain insights into the effectiveness of different types of programmes.

Studies on Alternate Models

The studies reported in this category are one by Muralidharan, R. and Mishra, S. (1989) on developing a home-based model and the other by Dutta, V. (1992) on family day-care centres. The POA (1992) had pointed out the necessity to take up more studies in developing alternate models of ECCE, primarily with the aim of expanding ECCE services. The study of Muralidharan, R. and Mishra, S. (1989) followed an experimental-control design with a fairly long

period of a one-year intervention for the experimental group. They showed that given training, the uneducated, unskilled tribal mothers were in a position to function as educators of their pre-school children but the intervention did not prove effective in the case of the mothers of urban slums. The sample consisted of 65 tribal families and 160 urban slum homes and the measuring instruments used were developmental tests for children and interview schedules for mothers.

Dutta, V.'s (1992) is a comparative study of family day-care centres and regular day-care centres of Bombay. Her sample consisted of 80 children each from family day-care 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 scales, interview guide for care givers and questionnaires 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 meal-time routines, and also that the group size has an impact on the quality of the centres.

More studies in this category are warranted, particularly in terms of training of the care givers, supervision and monitoring of such centres, specifying minimum essential requirements for running such centres, etc.

Studies on Establishing the Essentials

Two studies are reported in this category but the studies are of a totally different nature. The empirical study of Nagalakshmi, J. (1991) aimed to study the effects of group 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 schools was drawn from three different towns of Andhra Pradesh and included 529 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 cooperative play, making provision for adequate play equipment, improving staff-child ratio, etc.

The other study in this category was by Seth, K. and Ahuja, K. (1992) of the NCERT on establishing 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 workshops 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 and records and registers. This is a useful document which needs to be tried out in different contexts, primarily with the objective to see whether a quality programme can be ensured if the given prerequisites are fulfilled. It should also serve as a good tool for monitoring pre-school programmes. It was in the fitness of things that the Indian Association for Pre-school Education (IAPE) reprinted the document in its bulletin *Balak* so as to bring it to the notice of pre-school workers all over the country.

Studies on ECCE Personnel

Two studies were reported in this category, both from Tirupati and both dealing with Anganwadi workers. While Geetha, K. (1990) studied the knowledge and competence of the Anganwadi workers (AWW's), Kumari, P. (1991) dealt with their job involvement, personality and performance. Geeta, K.'s (1990) sample consisted of 45 Anganwadi workers who attended a monthly meeting of the urban ICDS block in Tirupati. The tools used were questionnaires to assess knowledge and competence of the Anganwadi workers. The major findings were that almost all the Anganwadi workers had above seventy-five per cent 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.

Kumari, P.'s (1991) study was more detailed and was done on a sample of 115 Anganwadi workers belonging to both urban and rural centres, 8 supervisors and 345 beneficiaries. The tools used were a job involvement scale, a work involvement scale, a job stress scale and rating scales to assess job performance. Urban and rural differences were highlighted in the study, the urban Anganwadi workers showing better job and work involvement and experiencing less job stress.

More studies may be planned to examine the competence level of the child-care worker, the personality characteristics of a highly competent worker and the possible reasons that enable her to function effectively. The system employs different types of workers, ranging from semi-literate to highly qualified women, working in differing contexts. Questions such as whether there is a common denominator for job satisfaction and competence irrespective of contexts and qualifications of the workers, needs to be probed.

Studies on Adult-Child-Interaction and Attitudes of Adults

Four studies were reported in this category, three on adult-child interaction and one on attitudes of parents and teachers on various aspects of pre-school education. Seth, P. (1991); Srilatha, G. (1988) and Bagai, R. (1988), probed into the implications of adult-child interaction for children's growth while Yasodhara, P. (1991) examined the attitudes of parents and teachers towards pre-school education. Bagai, R.'s (1988) study is interesting as she made detailed observations of adult-child interaction in three different communities, with the aim to understand the family dynamics of some of the Indian sub-cultures in relation to the developmental status of young children of 1-7

years. Seth, P. (1991), on the other hand, made a psychometric study on 240 children using a child-competence scale thereby selecting 30 children each at the two ends of the competence continuum and then studying the interaction of parents with these children by using an interview schedule. Srilatha, G. (1988) studied 300 mothers of pre-school children from different socio-economic groups using an interview schedule on mother-child interaction, primarily focusing on SES and sex differences in interaction.

Yasodhara, P.'s (1991) 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. Yasodhara 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.

The interaction studies need to be improved considerably. Highly sophisticated research methodology is now being used in international research on mother-child interactions. Video recording of the interactions and subsequent detailed analysis of the interaction, is an example. What is important in such studies is to place the study in the right theoretical framework, to make detailed observations, to ensure that objectivity is maintained in the interpretation, etc. Adult-child interaction across different subcultures also needs to be probed. Gender differences in interactions, interactions with grandparents, etc., are also topics for further study.

Miscellaneous Studies

Two studies are placed in this category as they were very different from all other studies. Deepali, D.'s (1990) study on pre-school children and their problems in rural areas of Kamrup district is mostly sociological in nature and deals with problems such as alcoholism of men, tension between mother-in-law and daughter-

in-law, etc. Probably the attempt was to link it with pre-school problems but this is not very clear.

The other is a review by Mohite, P. (1990) of researches in ECCE, a trend report.

After giving a brief picture of ECCE researches at the national level, it may perhaps be useful to give a bird's eye view of what happened at the international level in ECCE during the period under consideration.

THE INTERNATIONAL SCENE

The International Encyclopedia 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 try to find 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 the other. What emerges is that interaction of pre-school intervention with the other social contextual factors in the child's world needs to be kept in view while the attempts are made to measure the impact of pre-school education. An interactive ecological research framework is therefore desirable and a shift is slowly being indicated from the "currently dominant process-product paradigm to an ecological mediating process framework". (p.687)

Kamerman, S.B. (1994) indicated in the international overview of Child Care Policies and Programmes that all European countries were moving towards universal coverage of pre-school children in the 3-6 years age-group through

publicly funded programmes focusing on developmentally appropriate programming. These countries view early childhood education as a public responsibility and as an entitlement for children, and efforts are being stepped up to expand the programme to cover the whole cohort. Yet quality differences in terms of group size, adult-child ratio, staff qualifications, etc., do exist 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.

Myers, R.G. (1988) showed by reviewing Latin American and Asian studies that early childhood provision helped to address social equality issues. Early intervention programmes showed a positive effect on primary school enrolment, initial adjustment and on achievement in the early years of primary school. Myers, R.G. and Hertenberg, R. (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. Engle, 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.

The 1990s are therefore the era for building programmes from family strengths. Yet more information is required on what provisions should be made and which sectors of the community should be involved, and on the nature of programming.

Another area which is a matter of great concern in the international research scene is the area of assessment of young children. Young children by their very nature have certain limitations. These include their restricted ability to comprehend assessment cues, their limited

information-processing, verbal and perceptual-motor skills and their difficulty in controlling their behaviour during the assessment sessions. Due to these complexities a mixed measurement strategy is warranted in early childhood that incorporates multiple indicators and multiple sources of information. Assessment in early childhood is highly context-specific and inferential in character (Meisels, S.J. 1994). It has to view the child from multiple perspectives rather than rely on isolated single sources of information. The principle of contextualisation appears to be the all important principle in early childhood assessment as the child's performance depends to a great extent on the context in which a task is presented. Guidelines for screening and assessing young children are now available in the recent research literature (Meisels, S.J. 1987, 1989a, 1989b and Meisels, S.J. and Provence, S. 1989). Meisels, S.J. and Provence, S. (1989) listed 41 different areas of early childhood development screening tests, general development inventories, cognitive assessment devices, communication assessment instruments, motor assessment devices, social/emotional assessments and self-help assessment instruments.

What is on now is the search for development predictors. Long-term predictability of early childhood assessment scores needs to be considerably improved. Probably a longitudinal, multivariate design may help us better to understand which variables sampled in which specific ways, at which particular points of time, differentiate between poor and high achievers at later stages of development.

CONCLUSION

To sum up, the present report shows that research interest in the area of ECCE has certainly increased but we need more focused, well-planned studies. Studies more interdisciplinary in nature are required, particularly to understand the effects of multiple factors on child development. Also, more investigations need to be taken up to examine the long-term

effects of ECCE on children. Well-designed longitudinal studies are what we require at the moment. Also, lately there appears to be an over-emphasis on the study of cognitive components of development while the aspects of socio-emotional development have got neglected in most of the impact studies. The same holds true for intervention studies as well. Personnel preparation is another area that deserves more attention. Different models of personnel preparation exist now in ECCE but no research evidence is available on the effect of these models. Similarly, we require more information regarding ECCE in different specific contexts such as tribal areas, urban slums, etc. It is hoped that research students and staff will pay more attention to these areas when they plan ECCE research in the coming years.

REFERENCES

- Asi, Surjeet K. 1989. **Tiny tots: Their learning readiness (with and without pre-primary education)**. Independent study. *Solan: State Council of Educational Research and Training*
- Bagai, R. 1988. **Adult-child interaction in three communities: Implications for children's growth-cognitive and social development**. Ph.D., Home Sc. *Univ. of Delhi*
- Chandrika, D.C. 1989. **Role of Anganwadi experience on the cognitive development of children**. M.Phil., Home Sc. *Sri Venkateswara Univ.*
- Crahay, M. 1994. **Childcare and Pre-school effects**. In, Husen, Torsten, T. Neville. Postlethwaite, *International Encyclopedia of Education*. Second edition. Vol 2, 678-87.
- Datta, Vrinda. 1992. **Group care as a context for child development**. Ph.D., Edu. *Shreemati Nathibai Damodar Thackersey Women's Univ.*
- Deepali Devue. 1990. **Pre-school children and**

- their problems in rural areas of Kamrup District.** Ph.D., Edu. Gauhati Univ.
- Devi, Batani. 1990. **Effect of behavioural modification techniques on aggressive pre-school children of Anganwadi centres in Chandigarh.** Ph.D., Edu. Panjab Univ.
- Engle, P. 1986. **The interacting needs of working mothers and their young children 1980-85.** Paper presented to the Meeting on Women, Work and Childcare in the Third World, Washington DC.
- Geetha, K. 1990. **A study of knowledge and competence of Anganwadi workers as agents for child-care in urban slums of Tirupati ICDS project.** Ph.D., Home Sc. Sri Venkateswara Univ.
- Halpern, R. and Myers, R. 1985. **Effects of Early Childhood Interventions on Primary School Progress and Performance in the Developing Countries.** Ypsilanti, Michigan: High/Scope Press.
- Hejmadi, A. 1991. **Effects of intervention training on some cognitive abilities of pre-school children.** M.Phil., Psy. Utkal Univ.
- Jachuck, Kasturi. 1990. **SES and time related effects of pre-school education on cognitive abilities.** Independent study. New Delhi: National Council of Educational Research and Training.
- Kammerman, S.B. 1994. **Childcare policies and programmes: International Overview.** In, Husen, Torsten, T. Nevills. Postlethwaite. *International Encyclopedia of Education*. Pergamon, Vol 2(2), 693-701.
- Kaul, Venita. et al. 1992. **Starting children too early on number work.** Independent study. New Delhi: National Council of Educational Research and Training.
- Kaul, Venita; Ramachandran, Chitra and Upadhyaya, G.C. 1992. **Impact of ECE on retention in primary grades.** Independent study. New Delhi: National Council of Educational Research and Training.
- Kaur, Baljit; Muralidharan, Rajalakshmi; Limdi, Kalindi; et al. 1992. **A follow up study of children of Bastar (1982-90).** Independent study. The Maharaja Sayajirao Univ. of Baroda.
- Khosla, Renu. 1991. **Refresher courses in pre-school education for Anganwadi workers: An evaluation.** Independent study. New Delhi: National Institute of Public Cooperation and Child Development.
- Kumari, P. 1991. **Job involvement, personality and performance of the Anganwadi workers in the ICDS programme.** Ph.D., Home Sc. Sri Venkateswara Univ.
- Maiyani, J.P. 1989. **A study of the development of pre-primary education in Gujarat during post-Independence period.** Ph.D., Edu. Bhavnagar Univ.
- Mandke, Sandhya. 1989. **A study to determine the effects of exposure to pre-school education on the learning abilities of pre-school children.** M.Phil., Edu. Indian Institute of Education, Pune.
- Manjuvani, E. 1986. **Effect of enriched perceptual experiences through play materials on the performance of pre-school-children on simple perceptual tasks.** M.Phil., Home Sc. Sri Venkateswara Univ.
- Meisels, S.J. 1987. **Uses and abuses of development screening and school readiness testing.** *Young Children*, Vol 42(2), 4-6, 68-73.

- Meisels, S.J. 1989 (a). **Can development screening tests identify children who are developmentally at risk?** *Pediatrics*, Vol 83(4): 578-85.
- Meisels, S.J. 1989(b). **Development screening in early childhood: A guide.** 3rd edition. Washington, D.C.: National Association for the Education of Young Children.
- Meisels, S.J. 1994. **Assessment in early childhood.** In, Husen, Torsten, T. Neville. Postlethwaite, *International Encyclopedia of Education*. Pergamon, Vol 1. Second Edition.
- Meisels, S.J. and Provence, S. 1989. **Screening and Assessment: Guide lines for identifying young disabled and developmentally vulnerable children and their families.** Washington, D.C.: National Centre for Clinical Infant Programmes.
- Ministry of Human Resource Development. 1986. **National Policy on Education.** India: Department of Education, Government of India.
- Ministry of Human Resource Development. 1992. **National Policy on Education: Programme of Action.** India: Department of Education, Government of India.
- Mishra, D. 1990. **A study of the problems of pre-school education in the city of Cuttack.** M.Phil., Edu. Ravenshaw College, Cuttack.
- Mishra, S. 1991. **Effects of cognitive intervention training on intelligence and curiosity of pre-school children.** M.Phil., Psy. Utkal Univ.
- Mistry, Veena; Kaul, Sunita and Dhar, Hansa. 1989. **Indepth study of non-formal pre-school education component in Baroda Urban ICDS block.** Independent study. The Maharaja Sayajirao Univ. of Baroda.
- Mohite, Prerana. 1990. **Review of researches in early childhood care and education: A trend report.** Independent study. The Maharaja Sayajirao Univ. of Baroda.
- Muralidharan, Rajalakshmi and Misra, S. 1989. **Home-based programme in child development.** Independent study. New Delhi: National Council of Educational Research and Training.
- Muralidharan, Rajalakshmi and Pankajam, G. 1988. **An evaluation study of the different models of pre-school teacher training programme from the point of view of their impact on children.** Independent study. New Delhi: National Council of Educational Research and Training.
- Murlidharan, Rajalakshmi and Upadhyay, G.C. 1992. **"Effectiveness of toy-making competitions in the States: An assessment".** Independent study. New Delhi: National Council of Educational Research and Training.
- Myers, R.G. 1988. **Effects of early childhood intervention on primary school progress and performance in the developing countries.** An updated paper presented at a seminar on the importance of nutrition and early stimulation for the education of children in the Third World. Stockholm and High/Scope Educational Research Foundation, Ypsilanti, Michigan (Mimeo).
- Myers, R.G. 1992. **The Twelve Who Survive: Strengthening programmes of early childhood development in the Third World.** New York: Routledge in co-operation with UNESCO.
- Myers, R.G. and Hertenberg, R. 1987. **The Eleven Who Survive: Towards a re-examination of early childhood development programme option and costs.** Washington, D.C.: Education and Training Series. World Bank Report No: EDT 69.

- Murty, V. 1992. **An investigation into the scholastic readiness of pre-school children.** Ph.D., Edu. Univ. of Bombay.
- Nagalakshmi, J. 1991. **Establishing the essentials for pre-school stage.** Ph.D., Edu. Osmania Univ.
- Pandey, H. 1989. **Impact of the pre-school education component in integrated child development services programme on the cognitive development of children.** Ph.D., Home Science. Avinashilingam Institute for Home Science and Higher Education for Women.
- Pankajam, G. et al. 1990. **Child-care services in Tamil Nadu.** Independent study. Madurai Kamaraj Univ.
- Patnaik, Bijayalaxami. 1988. **Cognitive and linguistic development processes in children's stories.** Ph.D., Psy. Berhampur, Univ.
- Pattanaik, A. 1991. **Effects of pre-school education on cognitive development of primary school children.** Ph.D., Edu. Utkal Univ.
- Rajalakshmi, M. 1992. **An assessment of the existing nursery education programme in Kerala.** Ph.D., Edu. Univ. of Calicut.
- Rawal, U. 1992. **An attempt in programme evaluation of a model remedial pre-school.** M.Phil., Psy. Utkal Univ.
- Regional Centre. 1991. **ICDS: An appraisal in Bihar and Madhya Pradesh.** Independent study. Lucknow: National Institute of Public Cooperation and Child Development.
- Rights of the Child. 1991. **World declaration and plan of action from the World Summit for Children.** Convention on the rights of the child. The Department of Women and Child Development, Government of India.
- Seth, Kanta and Ahuja, Kavita. 1992. **Minimum specifications for pre-schools.** Independent study. New Delhi: National Council of Educational Research and Training.
- Seth, Poonam. 1991. **Effect of parental interaction and educational intervention for optimising the integrated development of pre-school children.** Ph.D., Edu. Panjab Univ.
- Sharma, Adarsh. 1990. **Status of social components of ICDS in Haryana rural projects Bhiwani and Adampur.** Independent study. New Delhi: National Institute of Public Cooperation and Child Development.
- Sharma, Adarsh. 1992. **National evaluation of integrated child development services.** Independent study. New Delhi: National Institute of Public Cooperation and Child Development.
- Sharma, Ranjana. 1992. **Pre-school education: A comparative study of aided and unaided pre-schools in Pune City.** M.Phil., Edu. Indian Institute of Education, Pune.
- Singh, Anjali. 1987. **Certain deprivation factors in language development in children.** Ph.D., Psy. Univ. of Allahabad.
- Sood, Neelam. 1992. **Pre-school education in ICDS: An appraisal.** Independent study. New Delhi: National Institute of Public Cooperation and Child Development.
- Sood, Neelam. 1987. **An evaluation of non-formal pre-school education component in Mangolpuri ICDS block.** Independent study. New Delhi: National Institute of Public Cooperation and Child Development.
- Srilatha, G. 1988. **Mother-child interaction during pre-school age in different socio-economic status groups.** M.Phil., Home Sc. Sri Venkateswara Univ.
- Srivastava, Sushila. 1992. **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.** Independent study. Madras: Indian Council for Child Welfare.
- Subhashini, T. 1990. **Strategies of preparing readiness kit for the pre-schoolers.** M.Phil., Edu. Madurai Kamaraj Univ.
- Tripathy, A. 1989. **Effects of pre-school education on cognitive ability and academic achievements of pre-adolescents and adolescents.** M.Phil., Psy. Utkal Univ.
- WCEFA. 1990. **World Declaration on Education For All and Framework of Action to meet basic learning needs.** New York: WCEFA Inter-Agency Commission.
- Yasodhara, P. 1991. **Attitude of parents and teachers towards various aspects of pre-school education.** Ph.D., Psy. Utkal Univ.