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The Learning Environments of Early Childhood in Asia

Research Perspectives
and Changing Programmes



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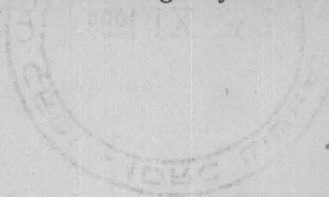
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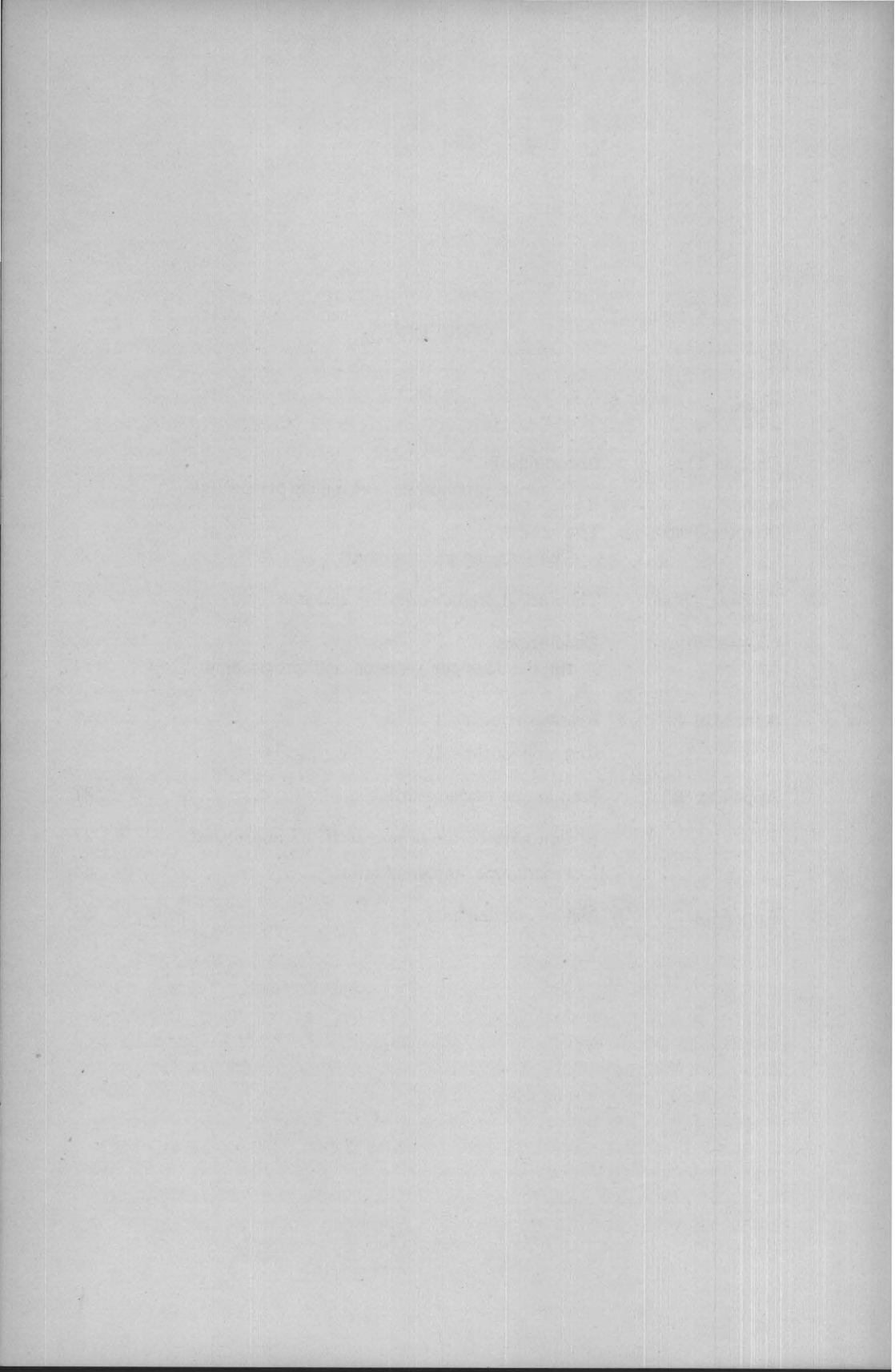
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PREFACE

Children from the poorest families in Asia enter school (if they can at all) disadvantaged in many ways. Most of them will have experienced some degree of protein-calorie malnutrition, a condition which delays children's intellectual development. Many will have as a mother tongue a non-standard language or dialect. Once in school most experience sharp discontinuities between the environment of their homes and immediate surroundings and that of the school. The competencies which they bring, developed through family work or ritual and coping with a harsh environment, will be undervalued; the competencies required for successful school performance, like good verbal skills, will generally be underdeveloped.

Realizations, such as those concerning competencies, have only come to me gradually as I, acting on behalf of the International Development Research Centre (IDRC), have attempted to support Asian researchers and educators in helping poor children derive the benefits they need and deserve from formal schooling. Until recently I had thought that what this required was more pre-school programmes. But to my distress, I have found that the programmes being established are frequently no more than downward extensions of the local primary school.

Knowing that governments and donor agencies were already going ahead with such various programmes, I and like-minded colleagues of UNICEF and UNESCO felt a certain urgency in promoting research which would bring to light the resources related to learning which are already available in the immediate environments of the very poor; research which would also suggest ways in which those resources could be built upon to ease the transition from home to school, thus rescuing disadvantaged children from early failure and drop-out.

To bring these concerns out into the open, regional officers of IDRC, UNICEF and UNESCO, jointly sponsored a workshop, held on December 1-5, 1986 in Bangkok, entitled 'The Learning Environment of Early Childhood: Research Perspective and Prospects.' Researchers and early childhood educators from seven countries, India, Indonesia, Malaysia, Nepal, Philippines, Sri Lanka and Thailand plus resource persons from four continents were involved. They were charged with 'exploring the features of the home and community environment of pre-school children in disadvantaged areas, which are conducive to cognitive and social development' and considering implications of this for 'the design of home and institution-based programmes in pre- and early primary school education in order to enhance a successful transition from home to school.'

The highlights of this workshop are included in this pamphlet. They provide a summary of the discussions on the above topics, examples of appropriate research designs which might be used in pursuing them further, and a listing of data/and research inputs which are recommended for use by early childhood education designers. Beyond that, and more importantly, they include a reconceptualization of the entire idea of 'disadvantaged' as it relates to the resources of economically, but not necessarily culturally, poor communities and families.

The pamphlet has been written in layman's language and expertly edited by a creative early childhood educator, Mina Swaminathan, of the Mobile Creches programme of India. As such, it is hoped that it will reach a wide range of educators and policy makers involved in early childhood education. Ultimately it is IDRC's hope, as well as that of its sister agencies, that it will promote increased dialogue between researchers and programme designers and ultimately make education not only available, but also useful and relevant for all.

Since this pamphlet is the result of a joint effort, I would like to thank the participants in the workshop for their enthusiastic co-operation, Mr. J. Ratnaik of UNESCO for his inspiration and intellectual leadership, and the Regional Directors of UNESCO and UNICEF for their financial and moral support.

H. Dean Nielsen
Senior Programme Officer
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Chapter One

INTRODUCTION

GROWING PROGRAMMES, CHANGING PERSPECTIVES

The workshop on Learning Environments of Early Childhood was organised against a backdrop of rapidly expanding programmes of care and education for children aged 0-6. Most countries in the Asia and Pacific region, which started with small-scale experimentation and demonstration projects, are now searching for ways to provide such services at a national level. A conscious effort is being made to reach poor children and their families.

A few examples are enough to indicate the enormous expansion of early childhood care and education (ECCE) within the region in recent years. In India, the Integrated Child Development Service has expanded from 33 experimental projects serving 40,000 children in 1976 to a national effort of about 1,300 projects serving 5,000,000 children in 1986. In Sri Lanka, all five year-olds have been covered by extending the primary school entry age downward to age 5, and transforming the first year of school into a kindergarten for all, while early care and education have also expanded. Thailand now provides some form of officially-recognised pre-school programmes for approximately 24 per cent of all children aged 3 to 6. In the Philippines, 19 per cent of all children aged 3 to 6 are in structured, centre-based pre-school programmes. What lies behind this explosion?

Pressures from below

Changing demographic and social circumstances are partly responsible for the increased interest in early child care and education.

Declining mortality: Over the last 20 years, the infant mortality rate has fallen by at least half throughout the region. The increasing rate of survival, forces greater attention to the survivors, whose circumstances may often lead to delayed or debilitated development with serious consequences for later life.

Increasing labour force participation by women: More women now work for wages outside the home, as a result of long-standing economic and social trends. Worldwide economic recessions exacerbate the monetization of economies, the technological displacement of women from traditional tasks, growing landlessness, and the shift from food crops to export and cash crops over the years. Hence women more visibly bear additional economic burdens, and are seen to require support services.

Modification of traditional family patterns: With continuing rural-urban migration, rapid urbanization and limited housing space in urban areas, members of the extended family are not as available for child care as in the past. The percentage of women-headed households has also increased. The effects in terms of the neglect of children, with possibly dangerous consequences, have become more evident.

Increasing primary school coverage: The availability of older siblings as caretakers has been reduced in some countries, while in others, the need for child caretakers has kept down school enrolment, especially among girls. As some primary school systems approach full coverage, attention is turning towards quality as well as reducing repetition and dropout, all of which are related to pre-primary school experience. In addition, a reduced birth rate has led to empty classrooms in primary schools in some countries, creating a bureaucratic reason for extending early education.

Growing political pressures: Increasingly, social groups formerly submerged or inarticulate, are becoming vocal in demands for social services to alleviate their condition. These demands are channeled through different agencies including labour unions, women's movements, religious groups, and political parties.

Policy goals

Pressures from 'above' have also been present. Research findings and evaluation studies, often emanating from the more developed countries, have drawn attention to the need for investment in early childhood as a support for development goals accepted by most governments.

Greater social equity: The children of the poor are usually at a disadvantage when entering formal schooling, while gender-related disparities in schooling begin with discriminating practices in the early years. Both kinds of disadvantages are seen to require intervention in the early stages of life.

Improvements in productivity: Investment in health, nutrition, and education early in life are seen as leading to productivity in later years. At the same time, it is recognised that child care programmes can allow greater labour force participation by women, and free older siblings to earn and/or learn. The interface between the needs of women and those of children is becoming clearer.

Improved cost/benefit ratio in social services: Preventive programmes have been shown to reduce later need for expensive health care, and improve the efficiency of educational systems through reductions in dropout, repetition, and remedial programmes. Child care programmes are also perceived as good entry points for primary health care services.

Improved human potential and quality of life: Scientific evidence points to the importance of the early years in the formation of intelligence, personality and social behaviour, and stresses the critical role of the environment in this process. For example, it is known that sensory stimulation from the environment alters the structuring of neural pathways in the brain. So opportunities for complex perceptual and motor experiences at an early age can favourably affect learning abilities. From the field of nutrition comes evidence that children whose mothers interact with them in consistent, caring ways, will be better nourished and less apt to be sick, than children not so attended. Child care programmes affecting the nature and quality of children's environments are thus seen to have a direct relationship to the development of human potential and the quality of life.

Designs and achievements

There is thus increasing agreement about the advantages of attention to early child care and education, and important initiatives have already been taken by several countries. But there is little agreement about what constitutes the most effective and equitable ways to design, deliver and extend services. A variety of options are available and are being used, some focussing directly on the child, others concentrating on the education of parents and other care givers, and still others seeking changes in the broader community environment of the child. These approaches, sometimes complementary and sometimes conflicting, are broadly based on the experiences of developed countries.

Most frequently, programmes are oriented towards filling gaps in what is felt to be a disadvantaged environment at home and in the community, one which leaves the child unprepared for school. This approach most often involves extending primary school methods and content downwards into pre-schools, beginning as early as age three. Sometimes it may involve trying to develop skills thought necessary for schooling, by working with parents or caregivers. In both cases, it is assumed that children must be prepared for schools as they are, and that the best way to do this is to introduce school-like activities into the child's life. Rarely does a programme seek to identify or build upon strengths in the so-called disadvantaged environments, to enhance children's learning and development, and to prepare children for school. Such an approach which dares to suggest that primary schools might be called upon to adjust their content and methods to suit children, instead of moulding children to suit schools, is less frequently found.

There is, however, a growing gap between the stated goals of ECCE programmes, and their actual attainments as measured by any of several indicators.

The failure can be traced, in part, to dependence on inappropriate strategies. Much of the knowledge upon which programme designs are based, and many of the programme models in use have their origin in the west, or are based

on narrow, out-moded, or culturally inappropriate views of early childhood development. Little regard has been paid to the socio-cultural background and developmental experiences of children, in relation to their natural home and community settings.

Workshop objectives

The workshop on Learning Environments sought to draw upon and to strengthen the knowledge and research base within the region, with the explicit objective of facilitating the contribution of local indigenous research and knowledge to policy and programming for ECCE. More specifically, the objectives of the workshop were:

- to explore features of the home and community environments of pre-school children conducive to cognitive and social development, in so-called 'disadvantaged' rural, urban or minority group areas;
- to consider implications of these environmental features for the design of home or institution-based child care and education programmes and for early primary schooling, in order to enhance a successful transition from home to school;
- to consider research strategies, methods and designs which have been, and/or can be, used to assess and characterize home and community environments in disadvantaged areas, and their effects on cognitive and social development; and
- to develop an agenda for research on priority issues in ECCE in the Asia and Pacific region.

Changing perspectives

While early child care and education programmes have grown in response to pressures from above and below, side by side there have been profound changes within the academic disciplines concerned with child development. These changes, reflected in the background papers and discussions at the workshop, have far-reaching implications for research and programming.

An emerging ecological perspective

Theories guiding the study of early childhood have evolved considerably during the past ten years. The new ecological perspective moves beyond the earlier narrow (though illuminating) work focussing on child development in terms of passage through a series of universal developmental stages. The new perspective attempts to understand early development in terms of a child's interaction with her learning environment, seeing this as a dynamic factor which helps set the goals, content and actual outcomes of development. Development is viewed as the acquisition of *particular* competencies required by *specific*

environments, not as the acquisition of a universal set of competencies. Researchers and practitioners must now understand the different environments in which a child grows and learns, such as home, community and school, and recognise that the nature and outcomes of development in the home, for instance, may be very different from the requirements of another environment such as the school. The key to obvious differentials in children's competence at home and school may lie in the subtle area of relationships with adults. This shift of perspective is reflected in the title of the workshop, which emphasized learning environments.

Toward a multi-disciplinary and multi-sectoral approach

An ecological approach to early childhood requires multi-disciplinary and multi-sectoral thinking. Early childhood has never been the exclusive concern of one group – psychologists, physiologists, pediatricians, nutritionists, sociologists, anthropologists and others have all been concerned with it, in one way or another. Yet both academically and bureaucratically, there has been a tendency to cut the child into pieces according to disciplines or sectors, so that the child as a whole is lost. A holistic, synthesising approach to the child at the conceptual research level, has to be matched by an integrated, inter-sectoral approach at the programme level. Fortunately, there are signs of a gradual erosion of barriers at both levels. The workshop, although heavily represented by psychologists and child development specialists, recognizes the need for such integration.

Toward participatory methods in research and action

A slow shift towards field level participation in research and programming has been occurring for sometime. The awareness is growing that research will be more accurate and applicable if it includes the participation of those whose lives are being studied, as well as of outside experts. Researchers may have the scientific tools to help articulate what is occurring in a particular environment, but not the knowledge that comes from day-to-day experience. Nor do they usually need to apply the results of the research to their own lives. From a design point of view, too, participation assists programme adjustment to local settings, facilitates acceptance, and sustains new initiatives, and is a means of sharing costs. The importance of participation is indicated in the workshop's emphasis on exploring community resources.

From a 'deficit' model to exploring environmental strengths and weaknesses

Until recently, emphasis has been placed on identifying, and then overcoming, deficiencies of the so-called disadvantaged or 'deprived' environments in which the rural and urban poor live. Work in psychology done in developed

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countries during the '60s, which gave rise to headstart type intervention programmes, has sustained this approach. Roughly speaking, disadvantaged environments were characterised as lacking the variety and quality of objects and events thought necessary to stimulate a child's early development. The absence of toys and of verbal interaction were frequently cited as detrimental to a child's visual and auditory discrimination and language ability. Psychological literature was reinforced by anthropological work describing a 'culture of poverty'.

More recently, attention has been drawn to strengths in the environments of the rural and urban poor. The thesis is that low-income families and communities in Asia and the Pacific (and in other parts of the world as well), have many positive features promoting early development. Recognition of these strengths, their exploration and mobilization, formed the core of discussions at the workshop. At the same time, there is growing recognition of the 'weaknesses' of the school environment, such as curriculum content unrelated to local needs and/or to children's interests; teaching methods unsuited to the cognitive and learning styles of young children; and objectives alien to parental goals and aspirations. Means for correcting these weaknesses were also explored at the workshop.



Chapter Two

THE CORE THE LEARNING ENVIRONMENTS

Reviews of research from India, Indonesia, Malaysia, Philippines, Sri Lanka and Thailand addressed three main topics:

- features of the home and community environment of disadvantaged young children, which are conducive to cognitive and social development;
- the relationship of such features to theories of child development; and
- implications of the above for the design of future research in early child care and education, and the development of home- and institution-based programmes of intervention for children of pre-school and early primary school ages.

Background papers prepared for the workshop centred around the following:

- ways of mobilizing and exploiting features of the environment to promote various aspects of development;
- strategies for the use of home and community resources to promote learning, citing examples and problems in their use;
- the relationship between aspects of child development on the one hand, and characteristics of caregivers and the learning environment of the home on the other.

The following paragraphs highlight the common themes and findings.

Themes and findings

Community attitudes, beliefs and perceptions, together with the values and aspirations of parents, are often in conflict with those of programme planners. Traditional beliefs and practices about child rearing and education, based on indigenous psychological traditions, must be taken into account. For example, it is believed in some communities that child development is best left to the slow natural processes of maturation; while others place value on quiet, obedient, respectful children in social harmony with the group. While traditional beliefs may or may not express direct opinions regarding active intervention,

many active opportunities are made available to the child through which child rearing 'arises incidentally'. These opportunities occur in numerous culture-specific situations, especially in those that relate to daily living. Participation in activities in the home involves many parameters of development, including affective ones. Conscious or unconscious role playing of the parents also contributes similarly. In rural environments, the wide range of caregivers, and the variety of interactions with persons of varying ages, further 'induce' developmental child rearing.

On the other hand, a disturbing trend, particularly in affluent urban environments, (and from these to other less endowed environments), is increasing parental emphasis on the narrow development of skills for school success, as against harmonious total development.

Parental self-image includes self-confidence, self-esteem and competence. It is closely correlated with growth in a young child's self-confidence, coping skills, ability to withstand stress, and competence in life tasks, since the relationship with the mother or principal caregiver exerts a significant influence on the young child. In marginalized communities, however, low parental and community self-esteem is often based on a realistic appreciation of the group's place and role in the social hierarchy. The question concerning the worth of the individual in relation to others cannot be treated purely as a matter of psychology, nor can it be dealt with wholly by measures to improve individual self-image. It is related to issues of power and powerlessness. The question is of great concern to poor communities and has to be seen in this context.

Language stimulation is the only feature in a child's environment that is most frequently cited for its importance. Studies from developed countries describe it as the best predictor of school success. A study conducted in a developing country in the region reveals that among disadvantaged populations, child development is accelerated by maternal actions such as talking, reciting rhymes, story telling, and encouraging the child to talk. Another study reports that language development is facilitated by exposure to pre-school education, and is related to birth order and family size.

It was emphasized that, in poor communities:

- a) mothers/caregivers may have little time for extensive verbal interaction with children;
- b) verbal stimulation is most often provided not only by parents but also by siblings, other children, grandparents, and/or other adults in the environment of the child; and
- c) higher emphasis may be placed on the child's understanding (receptive language) rather than on verbalization (productive language).

Emotional responsiveness is another key factor in optimal development. Studies from developing countries, as well as on disadvantaged populations in developed countries, report that emotional warmth is related to the child's cognitive development, social maturity, sense of responsibility and school achievement. In many poor communities, this warmth is expressed in strong traditions of indulging young children and in the range and depth of care offered by multiple caregivers, particularly when the mother is overwhelmed by survival tasks.



Opportunities for exploratory play and appropriate play materials are also related to cognitive growth. Play materials are defined as objects available in the child's environment which can be used for play and exploration and must not be equated narrowly with the presence of manufactured toys. The stimulation potential of homes must be redefined in terms of the play materials and everyday objects used in the community, access to nature, and to the rich store of natural playthings in rural areas. However, perceptions, cultural traditions, and taboos regarding the appropriateness of certain materials vary. As a result, parents might undervalue the educational value of materials/activities perceived as 'home' like.

Restrictions and types of discipline used are related to both the culture and the age of the child. For example, in most cultures of the region, there is considerable discontinuity between the liberal treatment of the infant and the behavioural restrictions placed on the older child. Restrictions placed on the explorations of very young children cannot be measured by a single standard, since they are often dictated by hazards in the immediate environment. Continuity may be found, however, between the styles of discipline used in the

home and the school, and in negative attitudes towards the behaviour of children, like curiosity, exploration, and initiative. Parental expectations of the school as a socializing agent are also noted.

The strengths

The following listing of 'strengths' is based on the discussions and should be the subject of further study. Significantly, the 'strengths' are found to be closely inter-related.

- close physical and emotional ties with the mother, in an atmosphere of love and security (providing a strong emotional base for personality development);
- caretaking by several adults and older siblings (providing a chance to learn from and develop attachment to several people);
- indulgence in and/or low pressure for achievement in the first few years of life (allowing the child room to explore and to learn for herself);
- opportunities for learning through participation in work, play and ritual activities, (allowing learning to occur in context, in a holistic way, in naturally-occurring sequences and in relation to a sense of responsibility and competence in lifelong tasks);
- opportunities for play with peers and children of other ages, with minimal interference from adults (providing for the development of self-reliance and values of collectivity, such as self-control, sharing, co-operation, sensitivity, empathy and a sense of belonging);
- exposure to and practice of multiple teaching styles, with emphasis on modelling, observation, imitation (allowing self-learning to occur through trial-and error);
- exposure to context-appropriate language use, gradations of terminology as in kinship terms, and sensitivity to subtle emotional messages (providing training in comprehension, auditory memory and listening skills); and
- presence in the environment of a wealth of local materials, natural and human-made objects and a rich cultural tradition of games, toys, songs, riddles, stories and poems, (providing a material, cultural and linguistic context for learning).

Chapter Three

THEORETICAL FRAMEWORKS FOR RESEARCH

The cognitive development theories of Piaget appear to be the dominant element in the conceptual framework of almost all the research under review. Little mention was made of behaviourist or social learning theories or of theories such as those of Erikson, which are more concerned with the emotional aspects of development. In spite of the dangers of uncritical applications and of limited validity in a cross-cultural context, Piagetian theories are nevertheless able to provide a sound rationale for early childhood intervention. The types of experiences which contribute to a child's mental development, the value of play, observation, and exploration of the environment in developing mental schemes, and the rich variety of experiences available to the so-called 'disadvantaged' child have been assessed in this context. Such theories provide a strong justification for the use of play and exploration as the foundations for early childhood programmes.

A second important perspective concerns the ecology of human development and the delineation by Bronfenbrenner of the child's ecological environment as a four-layered topography. Central to this perspective is the critical role of the social support network provided to the family and its influence on the behaviour and development of the child. Where social support to parents is strong, favourable mother-child interactions and positive parental attitudes and expectations are frequently found; the absence of such support contributes negatively to the situation of disadvantaged and high-risk children.

Shortcomings in current research

Inadequacy of the deficit model as explanation of behaviours of children in disadvantaged environments. Early research clearly linked social class and caste to lower intelligence scores and poorer school achievement. But the underlying assumption that disadvantaged groups are somehow deficient in their functioning has been challenged in the last two decades. The consensus of current opinion is that children from disadvantaged environments learn a 'different' set of skills; skills which are functional in disadvantaged environments, but which may not be valued by the school system nor by the strata of society which they may wish to have access to.

Inadequacy of conventional indicators. Most research projects available for review use vague concepts of social class and caste or ethnic group as indicators of social environment. Given the contradictory findings in studies

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which relate such variables to a child's development or learning outcomes, it is clear that more precise indicators of social environment, sometimes referred to as 'proximal' variables, are needed. This requires micro-level research.

Lack of validity/practicality in prevalent assessment methods.

Many research projects link social environment to developmental outcomes measured by tests whose validity for certain cultures has not been established. For instance, studies indicate that isolated and disadvantaged children are delayed in the performance of Piagetian tasks. Yet these studies lack both validity and practical application. Recent findings show that children who fail Piagetian tasks when using unfamiliar materials have no difficulty with the same tasks when using familiar materials that are culturally associated with such tasks. The problem of practicality arises if educators try to explicitly teach Piagetian tasks, such as seriation and conservation. Piaget himself was quite clear that children's active engagement in a rich and varied environment naturally propels them through a sequence of cognitive stages, and that teaching is unwarranted and unproductive.

Lack of utility. Lack of utility in many studies arises from the following:

- Operational definitions of important environmental features are global rather than precise.
- Differences in the developmental levels of the various age groups studied are not taken into account.
- Western concepts and measurement instruments are used, imposing an artificial structure on the local environments studied.
- Cultural values and the demands of the local environment on the child are not given adequate weight.
- Discrepancies in results among various contradictory studies are not reconciled.

Gaps in knowledge for future research

Some key areas needing investigation are as follows:

- identification of 'proximal' home environment features which have an impact on the cognitive and social development of young children;
- identification of strengths in home and community environments in 'disadvantaged' areas which can be used as a basis for the design of early child care and education programmes;
- assessment of language use and communication patterns in the home, community and school/pre-school – who talks to whom when, how, about what, how often, where and why;

Theoretical frameworks for research

- identification of patterns of child care in the home/community – who gives what kind of care and attention to children of various ages during the course of a day;
- assessment of the daily interactions between adults and children and their impact on development;
- analysis of the relationship between child development (cognitive and social) and the characteristics (self-esteem, work status, nutritional status) of principal caregivers, especially mothers.
- analysis of the effects of multiple caregiving/parenting on all aspects of child development, and of the effects of sibling care on the siblings who provide the care and the siblings who receive it;
- assessment of the competencies nurtured by the home and community, and comparison with those required in the primary school;
- analysis of home/school continuities/divergencies in process areas like teaching styles, modes of discipline, expectations, attitudes and behavioural patterns;
- analysis of the processes by which skills are generalized and transferred from one area of learning to another, and identification of the activities which assist this process;
- development of a theoretical framework to draw out the learning potentials in real life situations, and in activities related to work, play and ritual; and
- assessment of the viability of alternative models of ECCE.

CONCLUSIONS

IMPLICATIONS FOR RESEARCH AND PROGRAMMES

Some guidelines for research

1. Given the criticality of early childhood, high priority should be assigned to research on early childhood education. Such research must be consciously drawn upon, both as input to policy and as feedback to programmes.
2. Research themes and topics may be suggested not only by researchers, but also by community members, programme designers, teachers, parents, and caregivers. Whenever possible, research should be participatory, drawing local groups into the research process itself.
3. Research in early childhood must be holistic and synthesizing in approach, and multi-disciplinary in character. It will need to use both qualitative and quantitative research designs, sometimes in combination.
4. Assessment instruments and processes which have been shown to be culturally biased must be adapted to local circumstances and norms. Local assessment tools should be developed drawing on indigenous psychological concepts and traditions.

Suggested research outlines

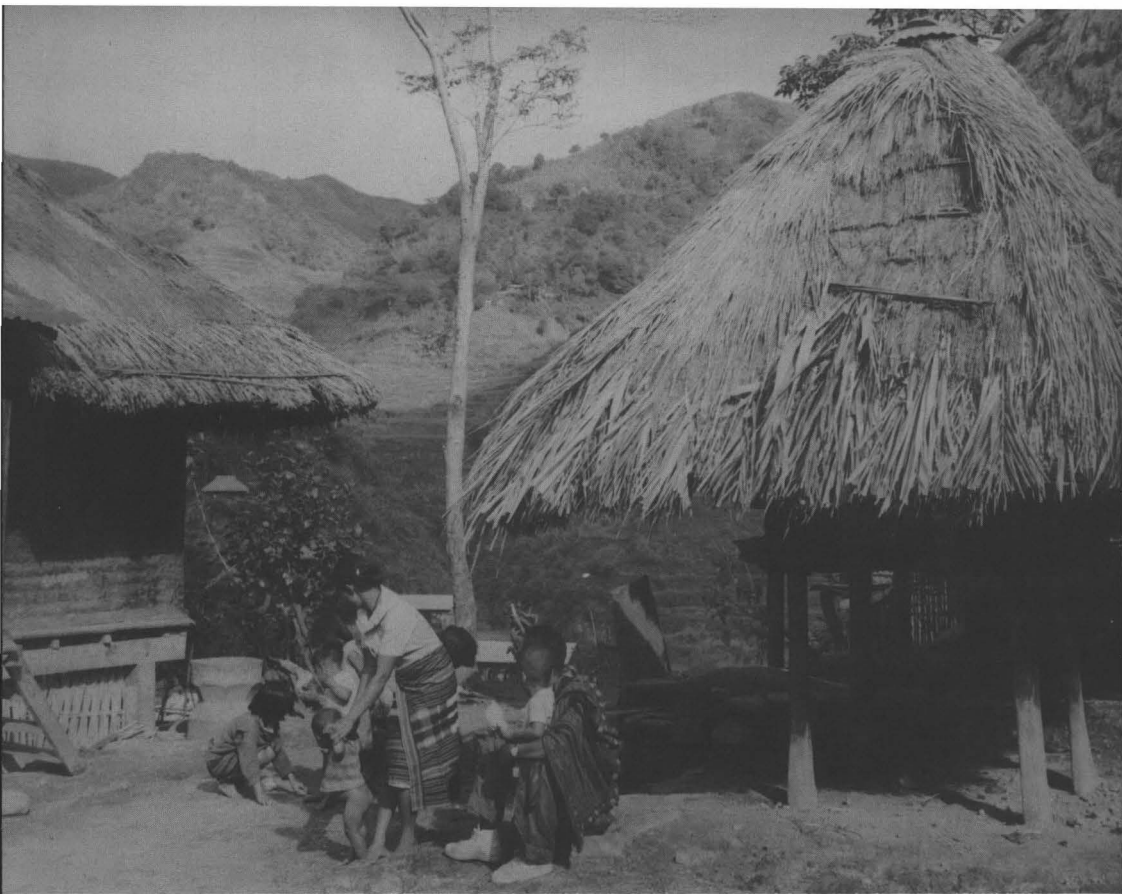
As an exercise, rough outlines for research programmes are prepared, in an attempt to answer the question:

'What are the strengths in disadvantaged environments that can be utilized in the design of programmes for child development in homes, in early childhood education centres, and in primary schools?'

The two sample outlines presented in Appendix A follow these guidelines.

Implications for programme design and action research

Designers of ECCE programmes are urged to promote and use research more effectively, as well as to integrate research into their activities. The following points require attention.



Promoting concern for the development of the whole child.

Most early childhood education programmes in the countries of the region appear to be downward extensions of the primary school, catering to the demands of parents and educators that the child be ready to perform well in school tasks. Such pressures often force children into tasks for which they are not ready (reading and mathematics at age 3 or 4), or into situations which neglect or devalue already well established competencies (the capacity to handle farm animals or different kinds of plants). Yet research indicates that the most effective pre-school programmes seemed to be those which focus on proper nutrition, socio-emotional development, self-concept and self-esteem, motor skills development and language production skills (often in a second language). *Programmes should build upon the competencies developed in the natural environments of early childhood, and avoid the trap of accepting narrowly defined goals.*

Handling divergence of programme goals between parents and programme designers. Parents who wish to give their children a good foundation for school generally believe that programmes should concentrate on the

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3R's, not on other areas of development. They may also expect pre-school or early primary school programmes to teach moral values, discipline and good (docile) behaviour. Such expectations are clearly at odds with programmes which stimulate children to be active, inquisitive, expressive and exacting. Such behaviours may be especially irritating to parents who themselves are suffering from lethargy resulting from malnutrition and drudgery. Another possible area



of conflict is between parental emphasis on collective group achievement and social harmony, and the school's emphasis on individualistic and competitive goals. Although parental goals must be taken into account, programmers will also need to develop acceptable ways of communicating the value of other goals. Community involvement at every stage will help to settle differences.

Avoiding unwarranted assumptions about impact. Programme planners often make some unwarranted assumptions, which may lead to a failure to demonstrate programme efficacy. An example is the following:

1. The assumption is often made that pre-school programmes will have a homogeneous effect; that most children will benefit equally and that all undergo the same experience. Both assumptions have been shown to be untrue.

The rate of progress is largely dependent on the child's level of functioning on entry into the programme and the type of disadvantages suffered during the early years. The intensity of exposure is related to the parents' motivation, the difficulty of getting to and from the family's home, competing demands on family time, the service providers' skill and interest, and family income. Programmes must begin to operate under the assumption that they will affect children differently. They will then be able to determine who benefit most positively.

2. The duration of the programme is often decided based on funding or political considerations, and may result in an intervention of limited duration which cannot produce results of sufficient magnitude to be measurable. Programme design must provide for variations in intensity and length of contact. The results may then be used to determine the the best combination for the population under consideration.

Modifying and integrating existing systems. ECCE programmes should be designed not only to promote children's all-round development, but also to ease the transition from home to school, building on the strengths of the former. In addition, educational designers should re-examine the structure and demands of early primary education, with a view to making it more consistent with local conditions, needs and cultural patterns; as well as with the needs, abilities and learning styles of young children, focussing on what children bring with them from home.

Utilizing available strategies. Toys, objects, activities, and materials from the local environment should be introduced into programmes immediately, since their role in concept learning is already known. The appropriate sequencing of materials and activities, based on research feedback, can be introduced later. Similarly, wider use should be made of the dramatic mode in teaching, with its rich possibilities for the safe exploration of alternatives, problem-solving, repetition, control and use of the whole self. Further research can lead to refinements. Introducing family grouping and peer learning as classroom strategies are other examples of acting on available knowledge.

Assessing the wider context of programmes. From an ecological perspective, programmes are more effective if they involve the family as well as the larger neighbourhood network.

Programme planners should also be aware of the wider socio-political context, the administrative structure, and developmental goals of concerned governments. This does not mean succumbing to bureaucratic or political pressure, but refers to a realistic appraisal of the feasibility of goals. For example, a purely individualized approach to improving parental skills and through it, parental self-esteem, may not have much impact unless there is an actual and perceived change in the group's position in the power structure.

Learning environment of early childhood

Appendix B indicates how research can be utilized in programme design by listing key elements requiring attention.



Appendix A

RESEARCH OUTLINE I

The rationale for research topic selection

An inquiry into the nature of interplay between children and their immediate social environment is seen to lead to an understanding of the specific dimensions and processes involved. Such a specific inquiry will be part of the process of identifying positive dimensions of disadvantaged environments. A study of the child in an ecological context puts particular focus on the topic, 'the social interaction patterns of a child through the day'.

Theoretical framework

Bronfenbrenner's four-layered topography of the ecological environment – micro-system, meso-system, exco-system and macro-system – is used as the broad theoretical framework. The implicit assumption in the framework is that learning and behaviour do not take place in a vacuum but in home environments which elicit, modify, and differentiate behaviour and development. Observing a child within his/her ecological niche involves studying and perceiving him/her in terms of:

1. physical and social conditions;
2. cultural conditions; and
3. psychological conditions.

Research questions

The broad research question 'What is the interaction between a child and his/her environment?' is broken up into specific research questions.

1. What are the social interactions involving the child throughout the day, and what social interaction patterns can be derived from them?
2. How do these patterns relate to specific aspects of the child's development? For example, what relationships are usable for programme design and implementation?
3. What possible strengths can be identified in the interaction patterns?

Definitions

1. *Social interaction*: Social interaction is the process by which a child interacts with 'significant others' in his/her environment all through the day. The interaction can be verbal as well as non-verbal.

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2. *Social interactional patterns*: Data include information on who a child interacts with, who initiates the interaction, its duration, content, and frequency, and context. The emerging social interaction pattern varies, depending on gender and age.
3. *Child development*: In the study, child development is limited to specific dimensions/aspects of development. These include:
 - *language*: language production skills such as vocabulary, sentence, grammar, and verbal expression; receptive language skills such as listening comprehension, and word recognition;
 - *social*: initiative; effective functioning in different circumstances;
 - *emotional*: confidence and self-esteem;
 - *cognitive*: concept development;
 - *moral*: sense of right and wrong.

Assumptions

1. Verbal and non-verbal interactions are crucial for a child's development.
2. Learning occurs through interactions with various significant people, besides the mother.
3. Learning occurs not just in didactic situations, but also in play, work, rituals, etc.
4. A child's immediate social setting is crucial in a child's development.
5. Within any social setting/group/community, there are specific strengths that can be identified and built around.

Some strengths in a disadvantaged community

1. Strong family-child bond, especially in the first few years.
2. Community-child bond:
 - acceptance of many caregivers
 - informal community-based support systems
3. Strength of collective orientation:
 - social conformity
 - close knit family/kin ties
 - easy access to adult models
4. Need/capacity for adaptation:
 - acceptance
 - improvisation
 - flexibility

5. Folk culture:
 - wisdom
 - stories, songs, toys
 - physical dimensions
6. Holistic world view
7. Integration of work and play

Methodology

Research/design. The design of the study is non-experimental in nature, involving an inductive approach. It is a descriptive study in a naturalistic setting, limited in geographic scope, and covering community participation and involvement. It essentially draws on traditions of ethnographic research, thereby recognizing the value of the socio-cultural as well as the psychological dimensions in a child's ecological environment.

Sample. Age and gender may be selected as major variables for sample selection, with school entry age as the upper limit.

Analysis. Analysis should be qualitative as well as quantitative in nature, so as to understand the child-environment interplay.

Observation. Time sampling and/or event sampling techniques of observation should be used and should provide brief 'narrative' accounts of interaction derived.

RESEARCH OUTLINE II

Aims of the research

1. To explore the competence of young children who live in poverty.
2. To describe the environmental contexts (social, physical, cultural) related to competence.
3. To contrast the competence seen in young children at home, with their competence in school.
4. To identify aspects of the school environment which elicit children's competence, and those that seem to 'de-skill' the child.
5. To assist programme design by a full description of the children's competence and the environments which support it.

Research questions

1. What is the relationship between the child's demonstrated competence, observed confidence at home, and the self-esteem of the caregiver(s)?

2. What is the difference between a child's demonstrated competence/observed confidence at home and at school?
3. What is the relationship between the child's demonstrated and observed confidence and other family characteristics? (e.g. family size, maternal education, health status of other family members, etc.).

Definitions

Competence is the capacity to adapt effectively to the demands imposed by the physical and social environment. It has three components: the cognitive scheme necessary for adaptation; the social/motor skills required to carry out the adaptive scheme; and the motivation or will to adapt successfully.

The environment of the child can be conceived at four levels (Fig. 1). Each level is classified according to:

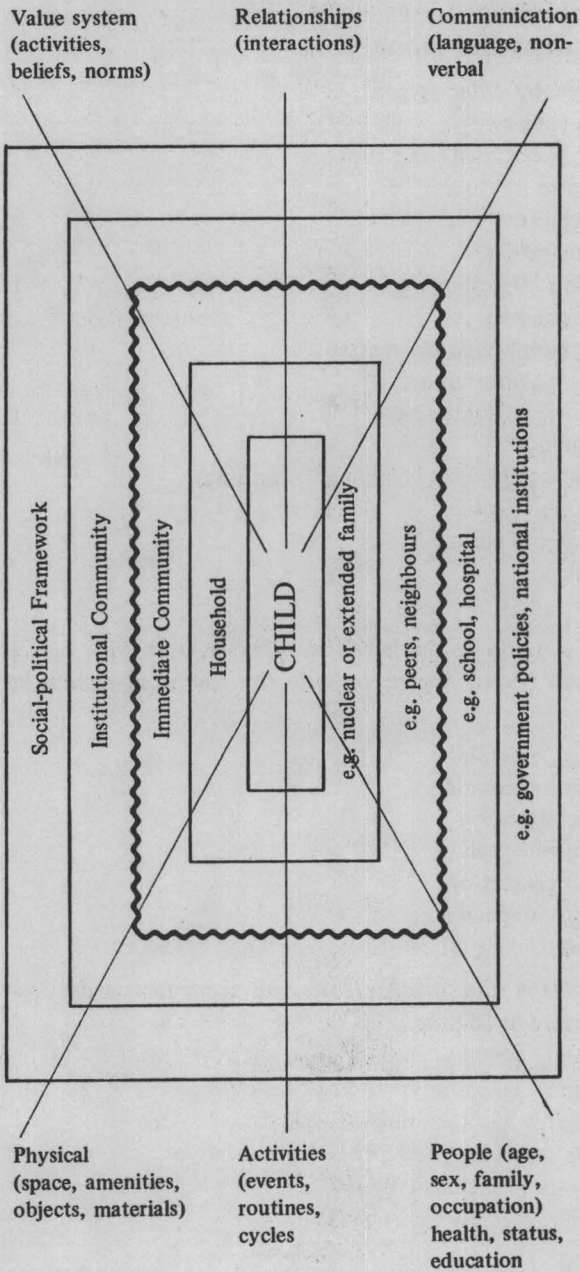
1. *Physical resources*: objects, materials, space, hygiene
2. *Activities*: work, play, rituals, events in cycles
3. *People*: ages, sexes, occupations, health status, educational levels
4. *Value systems*: attitudes, belief, norms
5. *Communications/language*: mother tongue, media
6. *Relationships*: more enduring patterns of interaction with significant others.

There is a crucial barrier between the two inner boxes (home and community) and the two outer boxes (institutions and socio-political framework). The challenge is to help the child move from the 'familiar world' to the 'institutional world' without being de-skilled. (Vide figure on page 23).

Competent behaviour in children is observable and includes the following:

1. Motor skills (appropriate to age)
2. Persistence and concentration
3. Responsibility:
 - taking care of one'sself, of others, of objects
 - completing assigned jobs
4. Overcoming obstacles/problem solving on one's own
5. Initiation: activity
6. Initiation: social interaction (positive)
7. Positive reaction: stress, pain, anxiety
8. Positive reaction: new people, things, events
9. Following directions/coping
10. Getting assistance when needed.

THE LEARNING ENVIRONMENT



Assumptions. Relationship in home, community, and school will be related to the child's competence. These include relationships seen in adult's (or older child's) behaviour towards the child.

Relationships and interactions:

1. initiated by older person
2. caring (physical)
3. caring (emotional) and support
4. talking to
5. playing with
6. demonstrating
7. stimulation/facilitating
8. role modelling
9. teaching/directing/instructing
10. restricting/punishing
11. threatening/frightening
12. controlling
13. motivating (praising, blaming, rewarding)
14. accepting/rejecting
15. leading/guiding
16. protecting
17. neutral

The child will respond to adult relational behaviours with his/her own competent behaviours (listed above) or with the following neutral or dependent behaviours.

1. initiated by child
2. seeking information
3. seeking attention
4. seeking acceptance
5. seeking protection
6. seeking independence
7. neutral

Relationships and interactions will occur in activity episodes, which can be characterized as follows (Fig. 2):

Figure 2

Dimension	Work (alternative schedule for school and home)	Play	Rituals (alternative schedule for school and home)	Life maintenance routine	Neutral
Nature					
TIME * duration * frequency * regularity					
OBJECTIVE * economic * personal * spiritual					
PEOPLE					
OBJECTS (Materials)					
COMMUNI- CATION MEDIA					

Methodology

Sample: The study should be conducted in at least two communities, Two possible samples are suggested for selection, according to available resources and time.

Larger design

- Age: 1. 15 months \pm 3 months
 2. 2½ years \pm 3 months
 3. 4 years \pm 3 months
 4. school entry + 1 year

Smaller design

1. pre-school entry + 1 year
 2. school entry + 1 year

The sex ratio should be balanced with control for ethnicity. Other factors to be considered are the number of adults in the household and the mother's work status.

Procedure: For 3 \pm years observe in the home and also in the community. For younger children, observe in the home only.

PHASE I: HOME AND COMMUNITY

Instruments:

1. Time-sample observation schedule for assessing competence.
2. Observer rating scale for assessing child confidence and profile of child, if possible.
3. Caregiver/parent structured interview (and text, if possible) for assessing self-esteem.
4. Structured interview with significant others, e.g. teacher, neighbour, spouse, fieldworker, to establish parental profile.

PHASE II: HOME AND SCHOOL/PRE-SCHOOL

Observe the same child (school/pre-school age) with half the observations at home and half at school/pre-school.

Instruments:

1. Competence schedule (school/pre-school) – modified form of instruments from Phase I.
2. Confidence rating scale – modified from Phase I.
3. Inventory of features of school/pre-school environment, e.g. activities, relationships, language.

PHASE III: TWO YEARS LATER FOLLOW-UP FOR SCHOOL SAMPLE

Additional information can be sought through the following:

1. Is the child in school or not? Has the child repeated grade?
2. School achievement/tests.
3. Pupil behaviour profile (completed by teacher).
4. Self-esteem test of children using pictures and stories.

Appendix B

PROGRAMME DESIGN OUTLINE

Utilization of research

The use of existing research findings and field experience in designing ECCE programmes is illustrated below.

After a statement of goals, key elements to be considered in programme design are categorized under environmental features and programme implementation. These elements as well as problems are elaborated in the light of field experience and research findings.

Possible goal statement for programme

To promote the development of the total child, a programme should ensure adequate care, provide for physical, emotional, social and moral development, and enhance the opportunities for cognitive growth and coping competence, in line with the values of the family and community in which the child lives.

I. *Contexts of development to be considered*

A. *Characteristics of the child*

1. Age
 - Age and development status of the child, with primary caregiver as focus of intervention before two years of age.
2. Sex
 - Relative deprivation of either sex in some cultures since differential value of males and females affect programme participation.
3. Developmental status and needs
 - Screening methods for identification of growth and development delays and local norms, since training must emphasize a wide range of aspects in normal development.
4. Individual differences
 - Impact of temperament (activity level, emotional style, extroversion) on caretaking practices.
 - Variations in rate of development across domains (physical, cognitive, social, emotion).

Learning environment of early childhood

- Birth order
 - Differences in play habits of children
 - 5. Special needs. Screening and referral for handicapped conditions and behavioural disorders.
 - 6. Biological needs
 - Health and nutritional needs
 - Special needs of poorly nourished children
- B. *Characteristics of the family*
1. Socio-economic status
 - Parental income, education, work status
 - Access to community resources/services
 - Quality/density housing
 - Environmental sanitation
 - Per capita income
 2. Size and composition of family
 - One or two parent
 - Extended or nuclear
 - Number of children
 - Other adults in the family
 3. Stimulation potential of the home and child-rearing behaviours (physical, social, emotional, cognitive)
 - Responsiveness of mother
 - Quality of language (conversing, storytelling, reading and singing)
 - Restrictions and punishment
 - Organization of the environment
 - Appropriate play materials
 - Maternal involvement
 - Variety in daily stimulation
 4. Child-rearing attitudes and values
 - Aspirations for child
 - Beliefs about child's potential
 - Family perceptions of child
 - Value of children to family
 - Child's responsibilities
 5. Media exposure
 - Radio, daily hours listening
 - TV, daily hours viewing

- Newspapers and magazines read per week
 - Books in house
 - 6. Schedule of daily life and workload for parents and child
 - Time allocated between child care and other work
 - Location, physical and emotional stress of work
 - Separation of families due to employment
 - Level of child's involvement in parental work
 - The need for out-of-family child care due to employment
 - 7. Parental self-concept and world view
 - Ability to deal with demands of formal school system
 - Life satisfaction (interpersonal and material)
 - Motivation and ambition
 - Fatalism
 - Balance of power and control in family
 - 8. Division of caretaking responsibilities
 - Who: parent, siblings, grandparents, unrelated, caretakers
 - What: social, emotional, educational
 - Why: community norms, family norms, necessity
 - Where: home, out of home
 - 9. Role of support system
 - Formal/informal support
 - Family/not family
 - Support provided: emotional, information and advice, concrete aid, exchange of services
 - Ability to meet stresses in major life needs
 - Intensity of ties
- C. *Characteristics of the community*
1. Size and location
 - Urban/rural/isolated
 - Accessibility of transportation
 - Density and number of households
 - Occupational patterns
 2. Ethnic group/language groups
 - Government policy on ethnic groups
 - Minority/majority status of ethnic group
 - Isolated or mixed group
 - Specific ethnic group child-rearing practices
 - Use of minority languages

3. Permanence (refugees, migrants, urban dwellers)
 - Length of time and stability in location
 - Legal status of migrating/refugee groups
 - Attitude of established community towards new groups
 - Emotional health and caretaking for refugees
4. Community services
 - Availability, distance, ease of access, acceptance
 - Types (health, family planning, education, child care, income-generating)
 - Free or fee for services
 - Quality
 - Community involvement
 - Institutional affiliation
 - Linkages among services
5. Media availability
 - Traditional forms
 - Television
 - Radio
 - Written material
 - Educational messages
 - Political propaganda
 - Use of media for child development messages
6. Formal and informal leadership
 - Overt and covert power structure
 - Flow of resources through leaders
 - Process of decision making
 - Leadership style
 - Leadership, outside or local
7. Value of child to community
 - Allocation of resources to children
 - Commitment to changing child risk factors
 - Attention to protecting children from physical hazards
8. Community norms for child behaviour
 - Discontinuities in norms between generations, over time and due to outside influences
 - Influence of traditional respect on child development needs
 - Traditions, taboos, and rituals for children

9. Cohesiveness and co-operation
 - Tradition of co-operative efforts, collective functioning
 - Degree of community cohesiveness and value placed on it
 10. Available educational services
 - Services for various age levels
 - Quality
 - Participation levels
 - Parental and community involvement
 - Discontinuities in expectations
 - Stress on academic skills or development of the whole child
- D. *Characteristics of socio-political environment*
1. Political commitment
 - Importance given to early childhood development in official policy
 - Legislation related to early childhood development
 - Awareness of early childhood development among authorities and decision makers
 - International commitments related to early childhood development
 - Interest in using foreign resources (human and material)
 2. Institutional responsibilities for programming
 - Institutions responsible for different programmes
 - Inter-agency co-ordination in planning and implementation
 3. Non-governmental organization involvement
 - Existence, strength, and interest of local NGOs
 - Nature and coverage of services provided by NGOs
 4. Socio-economic resources
 - Availability of socio-economic resources
 - Peace and stability
 - Strength of the economy
- E. *Organization of service delivery*
1. Location of intervention: home, pre-school, primary school, community group meeting
 - Selection of location
 - Age of children served
 - Number of children in location
 - Work status of parents
 - Availability of facilities

Learning environment of early childhood

- Nature of services delivered
- Number of available service providers in locality
- 2. Institutional affiliation (public, private, local, national and international)
 - Availability of funds
 - Level of interest in local control over programme
 - Degree of acceptance of institution and professional group by local community
- 3. Service providers
 - Paid/volunteer
 - Degree of training
 - Knowledge of local community
 - Permanent or temporary
- 4. Training of service providers
 - Task descriptions
 - Appropriate competency-based curriculum
 - Levels of training
 - Length of training
 - Availability of in-service training
 - Availability of supportive training materials
 - Field experiences as part of training programme
- 5. Structure of supervision
 - Supervisory norms
 - Regularity of supervision
 - Frequency of supervision
 - Monitoring and record keeping for supervisors
 - Feedback in supervision system
- 6. Person targeted: (child, parent, or sibling)
 - Selection of participants in line with goals of programme
 - Selection of participants in line with the reality of the family situation (e.g. siblings and caregivers)
- 7. Timing of service delivery
 - Ages covered
 - Frequency of contact
 - Amount of contact
- 8. Focus of programme
 - Parent-child interaction
 - Child education

- Parent support group
- Child-child programme
- Parent education
- Integration of services

II. Programme implementation

A. Strategies and steps

1. Preliminary proposal based on previous research
2. Situational analysis and community needs assessments and elicit community priorities.
3. Programme design, curriculum development, and organization of service delivery specified above:
 - Identifying content area
 - Specifying teaching strategies
 - Identifying equipment and material and physical environment
 - Linking activities to goals in each content area
 - Field testing to ensure appropriateness for target population
 - Ensuring that translations are correct in local dialect
4. Aligning political support
 - Communicating needs analysis to policy makers at local, national, and international levels
5. Aligning financial support
 - Circulating proposal to local, national, and international funding services
6. Recruitment and training of service providers
 - Method of advertisement
 - Interviewing and selection processes
 - Training and employment specified above
7. Recruitment/admission of children and families
 - Personal contacts to promote awareness
 - Media advertisement
 - Involving community leaders in promotion

B. Evaluation and monitoring

1. Development of indicators and assessment tools
 - Review of existing tasks for possible appropriateness
 - Checks for cultural biases, reliability and validity
 - Development of additional tools when necessary
 - Translation and back translation of instruments
 - Field tests and revision

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2. Schedule of data collection
 - Baseline
 - Mid-term
 - Post tests
3. Feeding in research results as they become available
4. Final evaluation
5. Dissemination of results
6. Longitudinal follow-up

C. Some problems in implementation

1. Lack of parent and community support, involvement and participation.
2. Lack of adequate supervision of service providers.
3. Programme out of line with community values and needs.
4. Programme content not in line with needs of children and community.
5. Inconsistencies in child care practices between home and programmes.
6. Lack of validity in assessment tools.
7. Inadequate coverage of programme needs in budget.
8. Inadequate training of programme personnel.
9. Incomplete situational and community needs assessment.
10. Incomplete development of community awareness.
11. Poor communication of programme goals to service providers.
12. Poor communication between programme and home, and poor information materials.

Appendix C

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