Bridging the gap between home and school: Improving achievement in primary schools

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May 1995

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Children at play in a village in Ethiopia
Improving retention rates and achievement in primary schools are goals which continue to challenge educators in both developed and developing countries. Non- and under-achievement have been closely linked to high drop-out and low retention rates, but more so in developing countries.

Official education statistics show large numbers of young children, particularly girls, who drop out of the school system before the completion of grade 4. Undoubtedly, the economic situation of many families has forced them to make hard choices about how to use their meagre resources. On the other hand, the school needs to exercise a greater influence on both children and parents.

Research has shown that when children are brought to the stage of learning when they are actively involved in their classes and where their experiences have become a part of the learning process, they tend to remain longer in school and to attend regularly. In an effort to achieve education for all, more educators are searching for ways in which the learning environment can support children from various socio-economic and ethnic groups.

This research initiative was designed to capture the early learning experiences of children before they enter the primary school system and to translate these experiences into the curriculum. In the development of the questionnaires, it drew on the experiences of a project on Instructional Improvement in Primary Schools, implemented in Nepal. The findings have been instructive. Children are already familiar with many educational concepts before they enter school. They are aware of measurements (albeit their own units of measurement), colours and sizes. Children, particularly those in rural areas, know some characteristics of plants and animals and are very aware of social relationships and cultural behaviour patterns. However when the children arrive in primary schools, their natural curriculum and methods of learning are, to a large extent, ignored.

The four participating countries, Egypt, Ethiopia, Indonesia and Jamaica have benefitted from the research experience in different ways. One of the common aspects of the studies is that the data were collected by primary school teachers. The intention was to give them first-hand exposure to the early learning experiences of children.

It is hoped that this report will inspire other countries to undertake similar studies in order to determine more appropriate content, starting points and methodologies for the curriculum in the early primary grades.

Colin N. Power
Assistant Director General,
UNESCO

February 1996
Acknowledgements

Special thanks are due to the Ethiopian Minister of Education, H. E. Mrs. Genet Zewdie and her team, for hosting the conference and ensuring the comfort and welfare of the participants.

UNESCO wishes to acknowledge the support of UNICEF, particularly the representative, Mr. Revi Tuluhungwa, without whose support the technical consultation might not have been possible.

Gratitude is due to the four UNESCO National Commissions in Egypt, Ethiopia, Indonesia and Jamaica respectively, for their co-operation with and support for the researchers.

UNESCO gratefully acknowledges the work of the senior researchers and their teams who interpreted the concept of bridging the gap between home and school into their own socio-economic and cultural settings.

Some of the materials in this report are based on background papers prepared by Dr. Winsome Gordon, who also made helpful comments on early drafts. Throughout the report we have drawn on the following papers presented at the Technical Consultation held in Ethiopia in November, 1994:

- E. V. Carter: Learning to Read with Pleasure.
- C. J. Daswani: Bridging the Language Gap.
- K. Sylva: Alternative Approaches to Teaching and Learning in Primary Schools.
- K. Torkington: Early Learning Experiences as the Foundation for Success at the Primary Level.

The senior researchers were:

- Mr. A. Elzeftawi, Egypt
- Mr. Kebbede Friesenbet, Ethiopia
- Ms. Diah Hariantti, Indonesia
- Mr. Carlos Browne, Jamaica

Chapter 1

The early learning experiences of children aged 0-6 years: strengthening primary education

Introduction

Educators still face the problems of under-achievement and high dropout rates at the primary level of learning particularly in rural areas and among girls. A review of the survival rate of the 1988 cohort in sub-Saharan Africa showed that an average of 75 per cent reached grade 4. This figure hides low survival rates in countries such as Ethiopia, 50 per cent, Comoros, 51 per cent and Gabon, 56 per cent. The average survival rates were also low in parts of Asia. Official estimates show the survival rate of the 1988 cohort to be 77 per cent for East Asia and 61 per cent for South East Asia. These figures do not reflect the low survival rates in Bhutan, 26 per cent, Bangladesh, 46 per cent, Pakistan, 51 per cent and Thailand, 59 per cent. In some countries, such as Jamaica, the problems are greatest among marginal urban groups. Moreover, in developing countries, among the children who do remain at school, many are virtually illiterate when they leave after four years of schooling.

In the developing world many of the problems of under-achievement at both the primary and secondary levels can be traced to the early primary grades where the foundations of learning should be laid. Inadequate supplies of books and other learning materials, books that are not designed to encourage reading, poorly trained teachers, inappropriate curricula and poor school conditions have been identified as the key contributing factors. In view of resource constraints governments are in search of ways of enhancing the learning environment at affordable costs. Maybe the major considerations should be: What is taught? How is it taught? and Who teaches it? Can these questions be addressed within the realities of the education systems? If so, how?

Young children are the products of their environment. By the time they are six or seven years old they have already been socialised in patterns of behaviour supported by adults in the community. By then they have acquired meaningful knowledge of the physical and socio-cultural environment and have developed a system for classifying that knowledge in a meaningful whole. In essence, they have provided their own curriculum content, methodology and language of transaction.

Attendance at school is a requirement of the formal education system. It offers a formal curriculum, a teaching methodology and a language that is often different from that of the child. In this context the child's previous curriculum seems meaningless and his or her language may be out of place in the classroom. It is not surprising therefore that many children drop out of school before completing grade 2. Even for those who remain in school, children whose socio-cultural background is somewhat different from that of the school tend to perform less well than their counterparts (Gordon, 1994).
Recognising the importance of the child's early experiences for success in educational attainment, many researchers and educators have attempted to explore ways of linking the child's early experiences to schooling. The strategies include:

(a) attempts to link early learning experiences to primary education;
(b) a more realistic view of early childhood education - broadening the concept beyond institutionalised programmes;
(c) improving the quality and quantity of learning materials; and
(d) improving teacher education. Although these efforts are being made, the magnitude and complexity of the task demand that much more be done.

In view of the persistence of the problems of retention and achievement in the primary grades, UNESCO decided to explore their relationship to curriculum teaching methods and teaching and learning materials, with a view to helping member states provide a more welcoming and familiar environment for pupils entering primary school. To this end four case studies were undertaken in Egypt, Ethiopia, Indonesia and Jamaica respectively. The countries were given some broad guidelines for the study and they were allowed to design their research according to local educational, cultural and social needs. The guidelines indicated the purpose of the study was to identify, analyse and itemise the children's curriculum before they entered primary school. For example: What information do young children have on plants and animals? What basic mathematical concepts do they have? and In what language do they communicate? The assumption was that this knowledge would help primary school teachers to prepare a more appropriate learning environment for children entering grade 1 in schools.

The participating countries were expected to identify the knowledge of children of 0-6 years of age which could form the foundation for formal learning in such subject areas as language, mathematics, science and social studies and socio-cultural aspects of the environment (folktales, festivals, customs) that could be translated into meaningful learning experiences. They were also expected to suggest teaching and learning materials and strategies that could enhance learning and make it a more pleasurable experience for the young child.

Countries were also asked to: (a) explore the attitudes of parents to the schooling of their children; (b) identify differences between boys and girls; (c) involve primary school teachers in data collection; and (d) use research techniques which are uncomplicated and which allow for the duplication of the study by provinces or individual schools.

The research design was prepared by research teams in each country comprising at least one general educator, one sociologist and a senior researcher. In reality the research teams were much larger. The activity culminated in a Technical Consultation which took place in Addis Ababa, Ethiopia from 14-18 November, 1994. This Consultation brought together experts in teaching and learning at the primary level and the senior researchers who undertook the studies in their respective countries. In addition to the discussions on the findings of the studies, the Consultation addressed such topics as: (a) early learning experiences as the foundation for success at the primary level; (b) learning to read with pleasure; (c) alternative approaches to teaching and learning in primary schools; and (d) bridging the language gap.
The four case studies: an overview

The purpose of the four research studies was to identify, analyse and record the child’s curriculum before he or she enters school. For example: How does the child classify the environment? What information has the child acquired on the behaviour of plants and animals? What does the child know of cultural patterns of behaviour? What is his or her language of communication? It is expected that learning achievement would be improved if the curriculum and, most importantly, teaching methods, drew on the knowledge and experience of the child. The curriculum would be designed so that the child’s environment would support and enhance rather than disrupt learning.

The research exercise was undertaken in two phases:

Phase 1: Broadly speaking the four research teams were to document what children had learned in the first 6 years about themselves, their family, community and environment. Although the four countries approached the research in different ways, they all worked to a common set of guidelines which were devised by UNESCO and which are outlined above.

Data were gathered by teachers from a sample of communities with different characteristics. In the design and methodology of the study, strengthening the capacity of each country to undertake similar research in other geographical areas was given special consideration.

Phase 2: On the basis of the research findings of the first phase, recommendations were to be made for early education in each country.

The Ethiopian study

Background

The research was carried out by ETHIO-Educational Consultants (ETEC) in collaboration with Ethiopian government officials. The report explains that Ethiopia, with a population of fifty million, is one of the least developed countries in the world. A high proportion of the population lives in mere subsistence conditions. Its agricultural productivity is low and its manufacturing sector is as low as 10 per cent of the total GNP. Its population is growing at 3 per cent per year and is reported to be a major factor in the decline and deterioration of the living conditions of the people, (ETEC, 1994).

The forecasts of the Statistical Profile for the Study of the Situation of Women and Children in Ethiopia (UNICEF 1990), show that by the year 2005 the total school age population (7-18) will reach 23.9 million of which the primary school age population (7-12) will constitute about 12 million. This rapid growth will result in increased demand for the supply of educational facilities which obviously will not be available. Schooling will continue to be inaccessible to a large majority of Ethiopian children for many years to come so long as economic development and population growth in Ethiopia continue at their present rates.

Until the beginning of the academic year 1994/95 the structure of the first and second levels of formal education constituted preschool education for children aged 4-6; primary school – grades 1- 6 for the age groups 7-12; junior secondary school – grades 7-8 for children aged 13-14 and senior secondary school – grades 9-12 for 15-18 year olds. A new structure for extending primary education to 8 years instead of the present 6 is planned to be tried out in pilot schools.
At present, pre-schools cater for only 1.5 to 2.1 per cent of the estimated 4.1 million pre-school age children. The importance of pre-school education for children has been recognised by the government. However, due to financial constraints and to other competing priorities such as basic and primary education, the government is unable to take responsibility for providing facilities and other requirements for the support of pre-schools. Almost all existing pre-schools are under the ownership and supervision of private enterprises, NGOs and religious organisations. Only a negligible number are run by the government and are mostly orphanages.

In June 1989, the National Children’s Commission (NCC) was established and later changed to the Children, Youth and Family Welfare Organisation (CYFWO). CYFWO is responsible for creating an awareness of the importance of meeting the basic needs of children and for making policies and issuing directives appropriate for the welfare and raising of children. It encourages organisations, communities and individuals to start pre-schools. The Ministry of Education is responsible for training teachers as well as preparing teaching aids and children’s books for use in pre-schools.

The provision of pre-school education for the large majority of children in Ethiopia will not, however, be realised for some years to come. The disparities that now prevail between urban and rural areas cannot be easily removed in a short space of time and currently most pre-schools are in urban centres. The large majority of those children who have the opportunity to go to school will have to start in grade 1 with no prior exposure to organised learning and teaching environments of any kind, except perhaps some children who attend traditional church or Koranic classes. Children from urban, marginalised and rural communities need special help and attention when they first join school by capitalising on their knowledge of their home background and culture in order to enhance their achievement in school (ETEC, 1994). It is in this context that the school is prepared to receive the child.

Drop-outs and repetition

Of the current 8 million school age children in the country only 20 per cent attend school, of which as many as 50 per cent drop out without attaining permanent literacy. The causes for the high number of drop-outs include the shortage of teaching and learning materials, poorly trained teachers and, above all, the almost total absence of any attempt by schools to make the transfer from home to school as smooth as possible when children first join grade 1. Classroom situations put new demands on children. They have to sit for long periods of time in the classroom and they have to adjust to an unfamiliar and, quite often, irrelevant curriculum, including in some cases a new language of communication. Until the beginning of the academic year 1991/92 the Amharic language served as the only medium of instruction in primary schools throughout the country. But even today some children who spoke a different language had to make the transfer from home to school.

Now it is the policy of the Transitional Government of Ethiopia (TGE), to allow all ethnic groups to use the language of their choice as a medium of instruction at the primary grades. This will reduce some of the adjustments experienced by many children. But even today over 80 different languages are spoken in the country it would be economically impossible for all children to learn materials in all the languages in which children will, therefore, continue to have the problem of having to learn a foreign language when they enter school.

Pupils often undergo irrelevant experiences in grades 1 and 2 because of misconception regarding education and how children learn, which is defined in terms of
knowledge and content to be transmitted rather than the impact or effect on the pupils' development. The current curriculum has been developed mainly out of a concern for subject content with little reference to the child's previous learning experience.

Repetition, like drop-outs, was a major cause of wastage in education in Ethiopia. Until recently, it was 44 per cent in the primary grades. Repetition was higher in the lower grades than in the higher ones. Now, automatic promotion has become government policy in schools. Children continue from one grade to the next chronologically and reach grade 6 without repetition. However, so long as children are not the focal point of teaching and the content of the curriculum is not related to their home backgrounds, culture and interests, the likelihood that they will reach grade 6 without acquiring basic learning needs remains a strong possibility (ETEC, 1994).

Objectives of the research study

The overall objective of the study was to identify, analyse and itemise children's knowledge, experience and background or curriculum before they entered school.

The specific objectives were:
(a) to identify the learning patterns of children aged 0-6;
(b) to study the scope of experience acquired by children in language, mathematics, science, social interaction, understanding the environment, etc., before they joined grade 1 at the age of 7;
(c) to find out the child's physical readiness for learning in school;
(d) to assess the attitude of parents towards the education of their children and
(e) to study the social and physical environment of children which influences their acquisition of knowledge and experience (ETEC, 1994).

Methodology and sample study

The study took place in two communities, one marginalised urban and one rural. The marginalised urban community was in Addis Ketema in Region 14. It is located in Woreda (district) 5, Kebele 12. The people in the community are very poor and of very low economic status. The community in the rural area was Daleti in Oromia Region (Region 4). It is located about 25 kilometres south west of Addis Ababa.

The marginalised community in Addis Ketema, Woreda 5, Kebele 12 was selected for the study on the recommendation of experts from the Ministry of Labour and Social Affairs after considering 33 such communities in Addis Ababa. Daleti was selected for its rural setting, its proximity to Addis Ababa and the availability of primary schools.

The professionals who took part in the study included a psychologist, a social affairs expert, an educator and a linguist. Data collectors were chosen from among preschool primary teachers in the two communities and they were provided with an orientation programme.

In both communities one thousand households were surveyed by random sampling. From each community one hundred households with children between the ages of 4 and 6 years and their parents were chosen for further study. The urban and rural contrasts and the type of sampling provided the basis for an illuminating and thorough study.

Procedure and influence:

Data on parents

Parents are a major influence on their children before they go to school. Attempts to enhance the environment for learning when the child first goes to school would have to take into
account home conditions and the attitudes of parents towards the education of their children. For this purpose an interview schedule was designed to collect data from parents. It was prepared in Amharic for Addis Ketema and in the Oromo language for Daleti.

Training was provided for the data collectors. The researchers carefully monitored the collection of data and the recording of observations of the children. The main variables identified for the analysis of data on the parents were those considered significant for the education of children before and after they enter school in grade 1. These variables were:

- The home language.
- The religion of the parents.
- The size of the family.
- Monthly income.
- Housing.
- The marital status of parents.
- The parents’ educational level.
- The length of breast feeding.
- The age at which parents want to send their children to school.¹

**Home language and religion**

The home language of children is an important factor in their education. Amharic is one of the major languages in the country. Until recently non-Amharic speakers had to learn Amharic when they entered primary school. This was a major stumbling block to the non-Amharic speaking children when they first joined school. Now that new education policies allow teaching to be conducted and learning/teaching materials for the primary grades to be prepared in the child's home language, such steps could contribute to making the transition from home to school smoother. To date, nine different ethnic languages are used as media of instruction in primary schools.

Religion also has an influence on the upbringing of children. The two predominant religions in Addis Ketema and Daleti are Christianity and Islam respectively. Related to each of these religions, there are many holidays, festivities, rituals, etc., which have a major influence on the education and upbringing of children.

**Table 1. Home language and religion of parents**

<table>
<thead>
<tr>
<th>Community</th>
<th>Home language</th>
<th>Religion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Amharic</td>
<td>Oromo</td>
</tr>
<tr>
<td>Addis Ketema</td>
<td>82</td>
<td>9</td>
</tr>
<tr>
<td>Daleti</td>
<td>100</td>
<td>23</td>
</tr>
</tbody>
</table>

As can be seen from Table 1, Amharic was the home language of 82 per cent of the parents in Addis Ketema. In Daleti 100 per cent of the parents spoke Oromo. 86 per cent of the parents in Addis Ketema were Christians and the rest were Muslims, while in Daleti 77 per cent were Muslims and 23 per cent Christians.

**Size of family**

The size of the family affects the education of the child. Within large families it is more difficult to satisfy children's basic needs for food, clothing, emotional security, etc. This was more likely among low income families and was the case in the two communities studied.¹

**Procedures and instruments**

Both quantitative and qualitative research methods were employed to gather significant data about the sample and key experiences. Background data were collected from the parents using an inter-
view guide in the appropriate language. Parents were asked questions about their culture, family relations, housing, wages, education and about their children. The 200 children selected from the two communities were observed by the researchers while the children played in a range of contexts. They were also observed working, communicating with adults, solving problems and playing games. The children studied were also given tests to determine their ability to classify, see relationships and copy pictures. The researchers tried to determine what the children could learn at school which would articulate with and build upon their home experiences.1

Analysis and results

The data analysed were presented in tables in the final report. They were differentiated according to district (rural and urban) and to gender. There were some clear distinctions within these categories. Although some reference was made to these differences, further analysis was possible from the data. The analysis revealed the wealth of experience and existing knowledge children brought to school with them, much of which was not well articulated with the existing school curriculum. The researchers analysed the test results and represented the responses in tables. They also analysed the children’s use of language, games, songs and their experiences of home chores to illustrate their natural learning in the key areas of mathematics, language, social studies, science and physical education.

(a) Parents

The study found that virtually all parents had a positive attitude towards educating their children. Parents in the urban location wished their children to start school at a younger age. This could possibly be the result of overcrowding in urban homes. Many parents did not appear to recognise the value of playing with their children but they did encourage them to play with other children. There was some evidence that children learn about the value system and the social structure of their community through communication with adults. However, culturally, many parents still believed that children should listen but not talk; this was especially so in the rural community. There is some need, therefore, for school teachers to help parents to understand the value of talk and language. Where there were negative influences, such as apparent violence in the urban community, children also learnt about this. Again, this had implications for the role of teachers in raising and discussing social relations and associated issues with children, in order to build on their experiences in a positive way. Interaction between adults and children varied. There was some evidence that there was more discussion of a situation and friendly talk in the rural area and that girls were more passive and did not ask many questions. In the urban area boys were much more likely to be reprimanded and scolded and less likely to be engaged in friendly talk with adults.

(b) Children learning through play

Unlike the other studies, the Ethiopian case study showed how children acquire knowledge. The following table on games children play and their implications for learning showed how and what, young children can learn from playing these games.

Some of the following games were played more by urban than rural children and others were played more by girls than boys and vice versa. The example of the game segno-maksegno illustrates how children learn from everyday play. In this case they learnt the
### Table 2. Implications of Games for Physical, Mental and Social Development

<table>
<thead>
<tr>
<th>Games</th>
<th>Physical</th>
<th>Mental</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Football</td>
<td>running</td>
<td>outwitting the opponent</td>
<td>sharing</td>
</tr>
<tr>
<td>(Daleti &amp; Addis</td>
<td>catching</td>
<td>estimating speed of ball and opponent</td>
<td>building self confidence</td>
</tr>
<tr>
<td>Ketema)</td>
<td>eye-body coordination</td>
<td></td>
<td>resolving conflicts</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>socialization</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>communication</td>
</tr>
<tr>
<td>Ku-Ku-Lu</td>
<td>running</td>
<td>locating position</td>
<td>association</td>
</tr>
<tr>
<td>(Daleti &amp; Addis</td>
<td>chasing</td>
<td>estimating movement</td>
<td>respecting the rules</td>
</tr>
<tr>
<td>Ketema)</td>
<td></td>
<td>thinking ahead of opponent</td>
<td>of the game</td>
</tr>
<tr>
<td></td>
<td></td>
<td>locating place for hiding</td>
<td>appreciating playing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>choosing the best way of escaping</td>
<td>with others</td>
</tr>
<tr>
<td></td>
<td></td>
<td>planning how to escape</td>
<td>following directions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(instruction)</td>
</tr>
<tr>
<td>Segnu-Maksegu</td>
<td>jumping</td>
<td>knowing days of the week</td>
<td>respecting the rules</td>
</tr>
<tr>
<td>Knowing days</td>
<td>throwing</td>
<td>estimating distance</td>
<td>of the game</td>
</tr>
<tr>
<td>of the week</td>
<td>balancing</td>
<td>measuring</td>
<td>experiencing success in</td>
</tr>
<tr>
<td>estimating</td>
<td>endurance</td>
<td>knowing the rules of the game</td>
<td>completing a task</td>
</tr>
<tr>
<td>distance</td>
<td>developing small muscles</td>
<td>precision</td>
<td>appreciating the talents of</td>
</tr>
<tr>
<td>measuring</td>
<td>used</td>
<td>making judgement</td>
<td>others</td>
</tr>
<tr>
<td>knowing the</td>
<td>for drawing a square</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rules of the</td>
<td>on the ground</td>
<td></td>
<td></td>
</tr>
<tr>
<td>game</td>
<td>eye-hand coordination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>making</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>judgement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stop</td>
<td>running</td>
<td>knowing how to make a circle</td>
<td>know how to lead and to follow</td>
</tr>
<tr>
<td>(Daleti)</td>
<td>throwing</td>
<td>concept of space</td>
<td>discipline</td>
</tr>
<tr>
<td></td>
<td>making circles</td>
<td>strengthening memory</td>
<td>following direction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>observing orderly sequence</td>
<td>assuming leadership role</td>
</tr>
<tr>
<td>Aya-Jibo</td>
<td>sitting</td>
<td>concept of morning, noon, evening</td>
<td>eating together and learning</td>
</tr>
<tr>
<td>(Addis Ketema)</td>
<td>standing</td>
<td>asking questions</td>
<td>about different meals of the day</td>
</tr>
<tr>
<td></td>
<td>running</td>
<td>sensing danger</td>
<td>washing face and hands</td>
</tr>
<tr>
<td></td>
<td>escaping</td>
<td></td>
<td>before eating breakfast</td>
</tr>
<tr>
<td></td>
<td>catching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aboson (Daleti)</td>
<td>running</td>
<td>following directions</td>
<td>volunteering</td>
</tr>
<tr>
<td></td>
<td>catching</td>
<td>classification</td>
<td>following direction</td>
</tr>
<tr>
<td></td>
<td>chasing</td>
<td>estimating deciding how to escape/catch</td>
<td>(instruction)</td>
</tr>
</tbody>
</table>
Segno-Maksegno

| Days     | Object
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>● object</td>
</tr>
<tr>
<td>Saturday</td>
<td>● object</td>
</tr>
<tr>
<td>Friday</td>
<td>● object</td>
</tr>
<tr>
<td>Thursday</td>
<td>● object</td>
</tr>
<tr>
<td>Wednesday</td>
<td>● object</td>
</tr>
<tr>
<td>Tuesday</td>
<td>● object</td>
</tr>
<tr>
<td>Monday</td>
<td>● object</td>
</tr>
</tbody>
</table>

Throwing position

days of the week, the estimation of distance and the physical skills of hopping, jumping and balancing. Children also learnt the rules of the games and social skills such as co-operation, sharing and the resolution of conflict.

Segno-Maksegno, example of a typical game:

The game is played on seven rectangular spaces each about 40 cm. wide and 2 metres long drawn on the ground. Each space represents and is named after each day of the week as shown in the above diagram. The spaces for Thursday and Sunday are divided into two halves.

To start the game a child throws a small object, usually a flat stone, from the throwing position on to Monday. The object has to rest exactly within the space given. This is not difficult since Monday is not far from the standing position for throwing the object. However, as the space on to which the stone has to be thrown increases in distance from the throwing position, more and more skill and precision is required from the player so that she can throw and place the object within the target space. If the child fails to place the object exactly on the space given between the lines she will be out of the game and is replaced by another child.

On the other hand, if the child succeeds in placing the object in the exact space, she jumps over Monday and lands on one foot on Tuesday. Then she continues hopping on one foot to Wednesday and then to Thursday. When she reaches Thursday she can stand on two feet by parting and placing one foot on the right and another foot on the left side of the line which divides the space for Thursday. Then she leaps on to Friday, always on one foot, then to Saturday and Sunday. When she reaches Sunday she rests on two feet as she did when she reached Thursday and then turns around and continues leaping back to Monday.

On the way back when she reaches Tuesday she picks up the stone from Monday without touching the line dividing Monday and Tuesday and continues hopping to the ground outside Monday. She throws the object on to Tuesday from the throwing position. If she succeeds in placing the object at the exact space (Tuesday) she hops to Monday, then from Monday she leaps over Tuesday and lands on Wednesday. The space where the object is should not be stepped on. The child has to jump over the space where the object is on to the next empty space. Then she keeps on leaping to Sunday in the same way.

On her way back again to Monday when she reaches Wednesday, she picks up the object from Tuesday and leaps on to Monday. Then she throws the object from the throwing position, this time on to the next space (Wednesday) and repeats the exercise as described above, until she is able to place the object on each space (day) of the week.

The winning player is the one who has at the end succeeded in throwing and placing the object at the exact space of Sunday and
has come back leaping to Monday without stepping on any of the lines between each day of the week.

Children in both communities played the game. Of the 32 children that played this game 62.5 per cent were girls. All the three children in Daleti who played it were girls. The duration of this game was 45 minutes to one hour.

The duration of play showed the extent to which the children's concentration had developed. Obviously this depended on the age and interest of each child. This would have implications for classroom teaching as children prefer to perform a task if it involves them actively and if it interests them. Young children learn through play.

(c) Children learning through work tasks

The children studied were found at one time or another engaged in the following tasks:
In Ethiopia, children start assuming work responsibilities at a very early stage in life. There were differences in experiences between rural and urban children and between boys and girls. In the rural communities they looked after domestic animals such as goats, sheep, cattle, etc. They fetched firewood from the nearby bushes and water from the river.

In urban communities, children were sent to the nearby kiosk to buy small things like sugar, coffee, salt, candles, etc. They were very often engaged in helping their mothers in domestic work of various kinds. Normally the bulk of the work went to the girls rather than the boys, especially as they grew older. Domestic chores included washing dishes, sweeping the floor, dusting furniture, looking after younger siblings, etc.
Observations showed that the children sought to solve problems in different ways, through discussion, appealing to adults, being tolerant or using physical violence. The incidence of physical violence in conflict resolution was high among children in the urban setting. The rural children hardly ever resorted to physical violence. Some of the girls in the urban area showed the most tolerant behaviour.

(d) What children know before they enter grade 1

The Ethiopian study explored the kind of knowledge children possessed before they entered school. Children were tested on their knowledge in the various disciplines, on classifications/relationships, drawings and observations. The overwhelming finding was that children learnt a great deal before they entered school and that there was a great mismatch between what the teachers teach and how they teach and what children actually brought with them and how they learnt at home and in the community.

From their environment, children had learnt how to classify, observe, question, recognize patterns, measure and communicate. For instance, by observing them, children were quite capable of using the characteristics of domestic animals to classify them. They knew about the different parts of the body of animals and the different parts of plants. The study illustrated how mathematical concepts such as comparing, contrasting, ordering, matching and counting objects was an everyday part of children’s lives. Further, it showed that some children also gained the ability to estimate, measure and classify.

The language abilities of children in Addi Ketema and Daleti were also studied. They communicated in the language they knew. They asked questions and answered questions. They knew the names of domestic and wild animals in their environment. They knew plants of various kinds. They had some knowledge of their cultural holidays. They sang songs. These songs and others they knew could be used as a basis for teaching language. This made up the curriculum of the children before they entered school and could be used as a starting point on which to build and develop the children’s knowledge and experience of language. Using the mother tongue as a medium of instruction in the primary grades would facilitate the child’s learning and enhance his or her language ability.

The children knew the geographical layout of their neighbourhoods and the immediate environment. They knew the composition of family units, the culture, the occupation of their parents, members of their families and people in their neighbourhoods. They knew the shops and market places in their surrounding areas. They knew how to work with others cooperatively. They realized the concept of interdependence, etc.

Through play and games they were able to realize what they could do with their hands, legs, etc. They also gained experience of how to deal with others when playing for a team and playing against a team.

This wealth of knowledge and experience that children acquire from their homes and neighbourhoods before they begin formal schooling could be used as the starting point
from which to develop the curriculum and approaches to teaching. Currently children follow 9 different subjects in grades 1 and 2 which are taught in separate subject lessons. The evidence from the Ethiopian study suggests that a more integrated curriculum starting with what children already know and have experience of, would be beneficial to learning and promote retention in school.

**Concluding remarks**

The study provides examples of how and what a curriculum could provide for children in grade 1. Examples related to mathematics, science, language, aesthetics and social studies are listed. These examples were not always directly related to evidence from the study. Further analysis and evidence of young children's learning could be gained by trying out the curriculum which is suggested by the researchers in a group of pilot classes. Sadly, the study cited that the least able teachers were frequently assigned to the lower grades in primary schools. There was also the problem of poor and curtailed teacher training courses which the study identified as being very low-level and incompatible with the child-centred teaching and learning the study was promoting. The research team made recommendations for the skills, knowledge and attitudes which would be needed by teachers to teach young children to learn effectively. This was based on how young children develop and what their experiences were before starting grade 1.
The Indonesian study

The research was co-ordinated by the Curriculum Development Centre, the Office of Educational and Cultural Research and Development, the Ministry of Education and Culture, in Jakarta, Indonesia.

Background to the Indonesian study

Universal primary education for a period of 6 years was begun in Indonesia in 1984. In 1994 this policy was revised and primary education was extended to 9 years. The implementation of this policy met with some constraints including an increase in drop out rates (20 per cent each year). Class repetition rates also increased by 9.5 per cent each year. The constraints were caused by the irrelevance of the education provided and by adverse economic circumstances. The lower socio-economic groups continue to believe that basic education cannot improve their economic status and that the education their children receive is not adequate for their needs.

In order to find out how far these factors affect the implementation of the primary education programme in Indonesia, the Curriculum Development Centre of the Office of Educational and Cultural Research and Development in collaboration with UNESCO undertook a study of what children aged 0-6 learn before they enter primary school. The study was conducted in 2 districts where the socio-economic level is low, and where a different language is used in school from the one in the home and where there is a lack of parental awareness of the role of education.

The study reviewed the socio-economic position of the children, their late entry into primary school and their basic abilities before they go to school. By exploring these matters, the study aimed at finding out the attitudes and expectations of the children. The results of the study were expected to improve and develop a learning strategy more suited to the needs of young children and to make classrooms more effective in encouraging learning.

Aims of the research

The study was expected to produce information on the knowledge and experiences of children before they entered primary school. The subjects of the study were pre-school children aged 0-6 years. Since the age-range of the group was wide, the data were collected and analysed on the basis of three age groups, that is, age groups between 0-2.5, 2.6-4.5 and 4.6-6.0.

The knowledge of the last two groups (2.6-4.5 and 4.6-6.0) included elements related to arithmetic, language, science and social studies and the development of socialisation. The knowledge and learning of the first group (0-2.5) could only be observed by their daily activities and the names of things in their surroundings with which the children were familiar. Based on the results, it was expected that follow-up activities could

1. (Harianti, 1994)
be conducted, i.e. writing modules for teaching-learning activities for primary schools.

The specific research questions of this study were to find out:

- The learning patterns of 0-6 year old children and the scope of experience acquired in language (and developing vocabularies), arithmetic, science, social interaction, understanding of the environment, etc;
- those socio-cultural aspects (folktales, festivals, customs) of the environment which could be translated into meaningful learning experiences and
- the attitudes of parents to the education of their children.

Population and sample

Bogor District and North Jakarta Municipality were chosen as the areas for this sample study. Prior to the study, a survey of these two areas was conducted in order to meet the criteria for the sample. The criteria for the study, among other things, were: that the majority of the people had low incomes, the structure of the community was relatively homogeneous (indigenous people); that most of the parents had a low educational background, and that a local language was used in everyday life, e.g. Betawi or Sundanese. The results of the survey showed that 6 sub-districts met these criteria.

A sample of about six hundred children from these two areas was chosen for the study. Since there were 6 sub-districts for the sample, each sub-district selected 100 children for the research exercise along with their parents since the parents were also involved in the study.¹

The technique for data collection

Data were collected through questions, interviews and observations. The following instruments were developed for data collection:

(a) A list of questions (activities) for the children concerning their ability related to arithmetic, science and the social environment, language and vocabulary development.
(b) A list of questions for the parents of the children regarding the daily activities of their children.
(c) An observation schedule to record the daily activities of the children.

The implementation of the research

Trying out the instruments

Local teachers were used to collect the data. Based on the results of a pilot exercise some of the instruments were revised due to the ambiguity of some of the questions. The instruments were also shortened since the items were too numerous.

The teachers who collected the data were only able to work for 2 to 3 hours each

¹ (Harunadi, 1994).
The day after school on the study as they had their teaching duties to perform.

The following is a table of the sub-districts and the number of teachers who were involved in collecting the data:

<table>
<thead>
<tr>
<th>No.</th>
<th>District</th>
<th>Sub-district</th>
<th>Number of teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>North Jakarta</td>
<td>Tanjung Priok</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>North Jakarta</td>
<td>Penjaringan</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>North Jakarta</td>
<td>Cilincing</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>Bogor</td>
<td>Leuwiliang</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Bogor</td>
<td>Ciampea</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>Bogor</td>
<td>Cibungbulang</td>
<td>11</td>
</tr>
</tbody>
</table>

**Collecting the data**

Data were collected over a period of six weeks. The following table shows the number of parents and children involved in the study:

<table>
<thead>
<tr>
<th>No.</th>
<th>Sub-districts</th>
<th>Parents</th>
<th>Children</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tanjung Priok</td>
<td>91</td>
<td>99</td>
<td>99</td>
</tr>
<tr>
<td>2</td>
<td>Penjaringan</td>
<td>95</td>
<td>96</td>
<td>96</td>
</tr>
<tr>
<td>3</td>
<td>Cilincing</td>
<td>85</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>4</td>
<td>Leuwiliang</td>
<td>97</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>Cianpea</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>Cibungbulang</td>
<td>98</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*(from Harianti, 1994)*

**Analysis and Results**

The type of research is described in the study report as descriptive research (Harianti, 1994) and the data were analysed by the percentage response on each item as a whole, according to gender and age. These were represented in tables or lists of predominant and general findings. There was little comparison in the report between the sub-districts or districts. The data were not computerised and this made it difficult to see correlations in the findings. The study provided very general information from the parents in interviews, for instance, that some mothers do not find time to read to their children due to the pressure of domestic or other work.

The data from the children were presented in subject lists which showed what most children were able or unable to do. For example in arithmetic, “not all children could see the difference and similarity of some pictures.” No clear percentages were provided or differentiated clearly in accordance with age.

The findings have been identified by the researchers as the basis for a prescriptive and descriptive set of packages containing subject-specific worksheets for children in grade 1. These packages have been tried out in some schools. The researchers also made recommendations regarding teacher training. Further curriculum development should take into account the need for activity-based learning tasks.

The results of the Indonesia study show a great deal of evidence that children come to school with a wide range and wealth of knowledge. Much of this knowledge was shown to overlap with the grade 1 curriculum currently taught in primary schools and the study identified the overlap and the mismatch between the school curriculum and the ability of children when they enter school. For example children had a good knowledge of classification but because this is not taught in grade 1 the teachers do not attempt to deal with it. The study illustrated that the current grade 1 curriculum is a model of fitting the children to a curriculum rather than making a curriculum which builds on the children’s prior learning experiences. Teachers in Indonesia appear to follow a traditional type of didactic teaching and rote learning and this makes it difficult for the teacher to be flexible enough to adopt the natural and activity-based approaches to learning with which young children were clearly more familiar in their community.

The study showed that children have many learning experiences which could be incorporated into grades 1 and 2 which are currently not taken into account. In arithmetic
children came to school with the ability to classify objects, count up to 10, add and subtract numbers less than 5, identify shapes, had experience of money and possessed an understanding of concepts such as long and short.

Children's scientific experiences included a knowledge of animals and plants, discrimination between solids and liquids, an understanding of shadows, problem solving and some experience of using agricultural tools and the ways of constructing simple toys. Their experiences related to social studies and language were also greater than currently recognised by teachers and by the curriculum. For instance, children knew about kinship names, traditional songs and folktales, the names of body parts, colours, courteous behaviour, neighbours and they possessed an understanding of various jobs and responsibilities. For instance in social studies and language proficiency tests the children were knowledgeable about parts of the body, identity and colours. Currently, the grade 1 curriculum underestimates the ability of young children.

The raw data do not show much variation in children's knowledge between the two districts but there was some evidence of gender differences. For example the data showed that boys knew larger denominations than girls and among the 4 to 6 age group, boys seemed to have a better knowledge of figures than girls.

As illustrated in all the research studies, children gained much of their knowledge from playing a variety of games and from engaging in imaginative play. They also learnt from singing songs, problem-solving related to everyday conflict resolution and from their domestic chores such as the care of siblings and animals, cleaning and running errands.

This study identified the need for a different type of curriculum for children in grades 1 and 2; a curriculum which is sensitive to what young children bring to school and how children learn. There were clear implications for the revision of the current primary curriculum and teacher training programmes.

<table>
<thead>
<tr>
<th>Age in years and months</th>
<th>Boys</th>
<th>Girls</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6 - 4.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.6 - 6.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. The function of parts of the body

The hands are for:
- eating 56 80 79 88
- boxing or fighting 8
- wearing a watch 8 6
- do not know 11 0 3 0

The eyes are for:
- looking at something/seeing something 75 84 85 92
- stealing a glance at 8
- winking 8 6

The ears are for:
- listening 38 69 73 73
- telling someone 8
- do not know 50 17 14 14

2. Self identity:
   (a) Giving their names
       - know 85 100 100 92
       - do not know 15 8
   (b) Knowledge of their age:
       - know 15 10 54 42
       - do not know 85 90 46 58
   (c) Knowledge of their addresses:
       - know 62 30 69 92
       - do not know 38 70 31 8
   (d) Knowledge of parent's name:
       - know 77 70 93 80
       - do not know 23 30 7 20

3. Colours:

They were asked to match colours in their hands with colours on the table.
- know all colours 44 71 84 94
- know 2 colours 11 29 16 6
- know 3 colours 33
- know 4 colours
- know 5 colours 11
The Jamaican study

Background to the Jamaican research

Here has been continued concern in Jamaica about the low rates of retention in the early grades and the fact that 15 per cent of the age cohort do not complete six years of primary school. As in all countries it is the poor who drop out most. In Jamaica, however, there is concern about a gender gap. Census data since 1943 have consistently suggested that more girls than boys complete six years of primary schooling (The Caribbean Education Annual, UNESCO/CARNEID Volume III, 93-94, page 35. Gender as an Issue in Basic Education in Jamaica, Errol Miller).

The Jamaican research team chose to focus on children from urban marginal areas. The sample compared six year old children who came from backgrounds which would make adjustment to the school difficult and who were therefore at risk of failure and dropping out of school.

Formal education in Jamaica begins at the age of six, and informal education refers to learning which takes place in the community. The children studied were described as pre-school children 'whose needs were not currently addressed by the education system'. Many parents manage to find a place for their children in basic schools which offer early childhood education. Since these institutions are fee-paying, parents who suffer economic deprivation are unable to use these facilities. The study of children included:

(a) those who remain at home and attend neither a day care centre nor any other early childhood education facility;

(b) those whose attendance at a day care centre or basic school is very irregular, that is absent for more than half a term;

(c) those left with people at homes other than their own and who do not attend basic schools;

(d) those who attend informal stimulation group meetings for less than two or three hours per week.

Aims and objectives of the research

This study aimed to:

- examine the early learning of children aged 0-6 and the scope of experience acquired in language, arithmetic, science, social studies and their understanding of the environment;

- assess the impact of the environment on learning;

- assess the attitudes of teachers, care givers and parents to the education of these children;

- develop and produce teaching/learning materials which will enhance learning and make it a pleasure.

Specific research questions were:

What factors influence rural and urban marginal groups?

What knowledge and experience do children have of their everyday environment?

What is their ability to understand, classify, categorise concepts and establish relationships?

What social patterns of relationship and behaviour exist among peers and between children and adults?

What are the learning patterns of the target group and what factors have an impact on their learning patterns?

What is the effect of modifying the curricula and classroom practices to meet the needs and abilities of marginal groups?
**The sample**

Urban refers to places within the town limits, while rural refers to places outside the town limits. The sample included eighty children. Of this number 45 per cent were from rural areas and 55 per cent from urban areas as the table shows.

<table>
<thead>
<tr>
<th>Table 3. Rural/Urban composition of sample. No: 80</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Rural</td>
</tr>
<tr>
<td>Urban</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Per cent</td>
</tr>
</tbody>
</table>

**The Instruments**

The instruments used included:
- observation schedule for assessing children
- interview schedule for parents
- interview schedule for teachers
- unstructured schedules for studying the child's learning environment

**Observation assessment schedule for children aged 0-1**

This schedule had twenty-four items. The seven items in Language Development assessed the children's ability to make sounds in response to familiar people and strangers and to recognise familiar people, pets and things. Non-verbal responses and the ability to make gestures were also assessed. The five items in the category Cognitive Development focused on children's ability to imitate actions and respond to directions and coloured objects. The five items in Social Development noted the children's abilities to interact with people. The two items in Emotional Development noted the emotions expressed.

**Observation assessment schedule for children aged 1-2**

This schedule had twenty-four items. Nine items in Language Development assessed the children's ability to say their names as well as those of family members, pets, animals and plants. The children's ability to express wants and identify familiar sounds, pictures of plants, animals and objects was also assessed. Cognitive Development had four items and assessed their reaction to pictures, ability to scribble on paper, build a tower and recognise belongings. The three items in Social Development assessed the ability to share and observed how the child related to toys and other play objects. Emotional Development had two items and assessed emotional responses to people.

**Observation assessment schedule for children aged 2-4**

There were twenty-eight items. The instrument had ten items in Language Development. The child was asked to identify objects, sing simple rhymes, combine words and use the pronouns "I" and "Me" correctly. The nine...
items in Cognitive Development assessed the ability to verbalise wants, match picture and objects, make patterns, observe differences and identify objects that were out of sight. Three items in Social Development assessed the ability to share, lead and take turns. Three items in Emotional Development assessed the ability to express feelings and control emotions.

**Observation schedule for children aged 4-6**

In this schedule there were forty-five items. Language Development had twelve items which assessed the knowledge of self, people, plants and things, the understanding of relationships, the ability to respond to questions asked, to tell the results of actions and use opposites. The thirteen items in Cognitive Development assessed numerical ability and communication skills. Social Development had nine items and dealt with how the child related to visitors, parents, siblings and peers. Attitudes and interactions in play were also considered. Emotional Development had seven items and observed the range and frequency of emotions and the care shown for people and things.

**Interview schedule for parents**

This included sixteen items which together examined:
- parents’ attitudes to education
- children’s interactions with others
- educational activities of the child in the home
- physical control, emotional climate and the home environment.

**Key findings of the Jamaican research**

The researchers found that many of the children in the samples were living in deplorable conditions. Furthermore, marginal urban areas had high crime rates, (prostitution, drugs, etc) and children were not shielded from these. Despite these disadvantages, many children were lively and skilled at looking after themselves. A large proportion, however, were falling behind in development, especially in the age range 4 - 6 years.

- In general, urban children performed better than their rural peers on cognitive and language measures. For example, many rural children were unable to ask questions and identify shapes.
- Social and emotional development was often disappointing, i.e. many children lacked social responsibility and concern for others.

In general:
- Only 25 per cent showed care for objects/things
- Only 50 per cent showed care for other persons
- Only 40 per cent responded to encouragement
- Girls showed better all round cognitive and language development, especially the 4-6 age group. Girls were much higher in almost all assessments, as, for example, in matching tasks and puzzles. This gender gap is a cause for concern.
- Parents without exception wanted their children to do well in school. Time and time again parents expressed an interest in the schooling of their children. However, many had little time to give to their children.
- Some children did not see their mothers much, especially single mothers (95 per cent of the sample were single mothers).
- Many children witnessed a great deal of aggression among adults; some children were very aggressive to other children and appeared to be imitating adults.
- Many young children were left in the care of older siblings and did not have adequate educational stimulation.
- The vast majority of children lived in homes with limited opportunity for conversation or literacy activities. Most of the children lived in ‘tenement yards’ where one
room is sometimes shared by as many as eight persons. Bathroom and toilet facilities are shared by several families. The environment is unattractive and in some cases unhygienic and with little furniture (p 48, Jamaican Final Report).

Two brief case studies follow of typical children from the urban and rural groups in the study.

Profile of a Five Year Old in a Rural Basic School

Denisha is a five year old girl who attends a rural basic school. In six weeks she attended school once, so she was observed only at home. She had no toys, books or play things. She knew her mother’s name and when asked “Where is your mother?” she replied “Gaan a bush”, (She has gone to the bush).

She said the words, “bush, water, food”. She had a vocabulary related to the functions of her family. Nearly all the responses in language and cognitive development were negative. She responded in single words when encouraged by the observer. The observer made three visits to Denisha’s home and did not find any adult, but she was told that Denisha lives with her mother, stepfather and two other children.

She lives on top of a hill in a shack. The place is untidy and there are no sanitary facilities. The children are ill and unkempt and are in need of medical attention.

Profile of a Four Year Old in a Urban Basic School

Sashine Oakley is a four year old girl who attends an urban Basic School. She rarely attends school and most of the responses in language and cognitive development were negative. She knew her mother’s name and things in the home. She was able to identify a black dog in a picture and used the words – come, what, book.

She identified the letters A, B, O and T. The responses under social and emotional development were in the negative.

She seldom smiled. The teacher put her in a corner by herself because she used every opportunity to start a fight with other children. Sometimes she would go outside, pick up stones and throw them at the other children.

The observer made several visits to Sashine’s home. On the last visit she found Sashine’s mother embroiled in a fight. She learnt that Sashine lives with her mother, relatives and friends and her existence is very unstable as she moves from house to house.

Recommendations of the researchers for modification to schooling in the first two years of primary school.

Primary education in Jamaica is already ‘progressive’. Interviews with education officers, administrators and teachers revealed a focus on ‘active learning’. Why then do children drop out of school and boys seem particularly at risk of retention, failure and drop-out?

It is believed that the children in Jamaica who were retained and/or failed to complete six years of primary school came from the marginalized groups studied in this research. Therefore, further recommendations for primary learning were put forward by the research team to bridge the gap for the parents of marginal children, especially boys, between their impoverished communities and the English-speaking primary school. These included:

1. The Jamaican language Creole is spoken by all Jamaicans. Dialect is one of the ways to welcome a child into school, although many teachers do not use it. More effort should be made to welcome dialect in the primary school, to use it in teaching in the early primary grades and to value the child’s home learning through its own language.
2. The boys from real marginal groups entered school with especially poor language and social skills. Activity-based learning would give them an opportunity to move around the classroom (and playing field) and to work in small groups of children rather than in a large class group. Concentration was a problem for them, so activity-based learning would be an appropriate teaching and learning approach.

3. Children’s natural interests should be used. Throughout the primary school, sports might be used to teach arithmetic and social skills. Also names of sporting heroes might be used for teaching the sounds and spellings of words.

4. Popular music as well as traditional music should be used as the basis for language teaching and to enliven the atmosphere.

5. Further training for teachers was recommended (such as that provided in the consultation by Elaine Carter) to improve the teaching of reading. An oral and problem-solving approach should be used.

6. There should be more group work where children can talk to each other while solving problems. Too much sedentary work is required of very young children.

7. The government should encourage the appointment of male teachers, or encourage male headteachers to be involved in grades 1 and 2 as role models for the young boys.

8. Parent involvement is crucial, e.g. ‘cultural evenings’ at school where children sing, dance and recite. Parents would be more likely to attend these because they would be seen as lively events. Parents wanted to be involved but did not like boring parent/teachers’ meetings. (Brouar 1996).

Suggestions for further research

Although the research findings on the 80 children from the marginalized group’s sample was interesting it is important that a broader, more representative sample be studied to see how closely the original sample matches more typical children.

The observation schedule should be expanded to include more information on how children learn and where learning should be and not just what professionals think they should learn.

A basic school class in Jamaica
Egypt has paid great attention to educational reform throughout the century. A national conference on primary education was held in Cairo in 1993.

The principles guiding the work of the Conference were:

1. Ensure the enrolment of all Egyptian children in basic education regardless of their gender, socio-economic class or geographical location
2. Provision of comprehensive developmental opportunities for all children in basic education learning

In accordance with the national commitment to improve primary education, the research team carried out a survey of children’s learning before going to school so that their findings could guide efforts to bridge the gap between home and school. The research was undertaken by the National Centre for Educational Research and Development and summarised in NCERD (1994).

Aims

The researchers were interested in the effects of the following background variables on children’s learning: administrative area (called governorates), age, gender, rural/urban status. The aim was to determine the relationship between the learning which the pre-school child acquires in his environment and its relationship to the primary education curriculum and to the problem of drop-outs at the primary level in Egypt, especially among females in poor urban areas.

Sample

The research covered children in three areas (Cairo, Beni Suef and Port Said). The sample included 1,176 male and female children, from rural and urban areas, from different socio-economic levels, and those enrolled in kindergartens, or remaining at home. The children’s development in four domains was assessed to create a statistical record of what the child learns before entry into school.

Research Questions

1. What differences are there in the developmental status of rural and urban children?
2. What differences are there in the developmental status of children who have attended kindergarten and those who have not?
3. What differences are there in the developmental status of children in the three areas (governorates)?
4. What differences are there in the developmental status of boys and girls? (and at different ages?).

Overview of research instruments

The 1,176 children in the study were assessed in the following developmental skills:

- Motor skills.
- Artistic skills.
- Social skills.
- Environmental skills.
- Scientific skills.
- Linguistic skills.
- Numeracy skills.
- Intellectual skills.
- General knowledge.

Parents were also interviewed for information on their occupations and their attitudes towards their children’s education.

Key Findings

Children were assessed in many areas and the patterns of results were often complex. However important generalisations may be drawn from the findings.

1. In most tests, children enrolled in kindergartens had higher scores than those
who remained at home. Differences were especially large in language, arithmetic, general and environmental knowledge as well as social skills.

2. There were few gender differences, which reflected the progress made by Egypt in gender equality.

3. From most tests it was noticeable that children gradually gained more knowledge and skills from the socio-cultural environment as they grew older.

4. There was no consistent difference between rural and urban samples. For example the rural Port Said children scored highest in language but were rather low in general knowledge. The urban Beni Suef children were higher in mental tests but lower in language assessments. Overall, urban children had a slight advantage over rural ones.

5. No one area (governorate) proved to have higher overall scores than others. However, children in the lower socio-economic status Cairo group performed better than those in the higher socio-economic status Cairo group. This finding may be explained by the fact that children who are familiar with commercial activity and 'street life' had better numeracy and general knowledge than those who came from more privileged homes.

6. In general, there were higher scores in linguistic skills than in other domains.

7. Parents who had higher educational levels had more favourable attitudes towards their children’s schooling than those with fewer years in education.

8. Farmers, in general, had poorer attitudes to their children’s education than labourers or those engaged in commerce.

Other findings included:

Pronunciation and articulation problems were found in many young children. There were differences in naming things among children in different localities. Large differences between the social atmosphere at home and at school were found in every group. There was a large gap between what the child learned at school and what he/she learned in the social and cultural community, within the family or in the kindergarten.

**Recommendations by the Egyptian researchers on the modifications to schooling in the first two years.**

After completing the study, the research team called for 'cooperation between two institutions', that is the primary school and the child’s community. They recommended that the local administration should provide information on the aims of education and encourage the school to become ‘a source of instruction for the community’.

The results of the field study of preschool children led directly to the design of learning activities and materials intended to:

(a) increase the correlation between what the child learns at school and what it learns from the environment. This might narrow the gap and cause the school child to be less isolated from society.

(b) increase the role of the school in enhancing the process of acquiring concepts and ways of thinking during this stage which constitutes the base of the child’s future life and enables it to acquire independent learning. It might encourage the child to seek further education. Moreover, paying more attention to the children’s problems in the first and second year of education would help to narrow the gap.
grades would help schools to achieve their goals in higher grades.

(c) To discover the positive aspects of children’s learning in the local environment that can be incorporated into the first and second grades.

The child’s involvement with the local environment leads to much informal learning. Consequently it is exposed to many experiences which educationalists should build upon when revising the curriculum. The research team recommended:

‘In this respect, it is possible that such a programme would improve learning and create a happier child enjoying what it learns at school in harmony with its environment and socio-cultural surroundings. Thus, education could become a means of linking the child with its social and cultural environment’. The proposed programme should be a continuation of the experiences the child acquires incidentally and indirectly in the community or directly through kindergartens and nurseries. When designing the framework of the proposed programme, the development of children’s scientific thinking should be taken into account, e.g. in observation, comparison, classification, arrangement, training to hypothesize and predict.

The research team worked with teachers to develop a programme for young children. It included aims, objectives, learning difficulties, curriculum content and a model for implementing a variety of activities.

Teachers taking children for a nature walk in Egypt

Features of the programme:

Flexibility:

The programme should be flexible enough to allow the content of activities to be sensitive to different environments and localities. It requires flexibility in the teachers because their work demands both direct teaching and taking part in learning activities. It also requires flexibility in the selection of the site of activities.

Comprehensiveness:

This requires that activities should be varied to cover different fields of knowledge - science and health, environmental education, arithmetic, linguistic and artistic skills.

Realism:

This requires the reflection of the pupils' real environment in teaching and learning activities.

Aims of the programme:

1. Achieve the comprehensive development of pupils
2. Develop moral values
3. Develop strategies for self-learning
4. Inculcate favourable habits and the development of positive environmental behaviour
5. Develop the ability to innovate and appreciate
6. Acquire knowledge and mental and social skills
7. Familiarize pupils with the environment
8. Develop motor skills and achieve manual/visual coordination

1. (from p. 64 of NCED/UNESCO report)
As an example of the proposed curriculum, an outline for mathematics and social studies in the first two years of primary school follows:

<table>
<thead>
<tr>
<th>First Year Primary</th>
<th>Second Year Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maths</strong></td>
<td><strong>Maths</strong></td>
</tr>
<tr>
<td><strong>Numbers</strong></td>
<td><strong>Numbers</strong></td>
</tr>
<tr>
<td>- Classification</td>
<td>- Concept of a hundred</td>
</tr>
<tr>
<td>- matching</td>
<td>- Reading and writing numbers consisting of three numbers and arranging them up to 999</td>
</tr>
<tr>
<td>- equalization</td>
<td></td>
</tr>
<tr>
<td>- inside</td>
<td>- more than</td>
</tr>
<tr>
<td>- outside</td>
<td>- less than</td>
</tr>
<tr>
<td>- over</td>
<td></td>
</tr>
<tr>
<td>- under</td>
<td></td>
</tr>
<tr>
<td>- Numbers from one to nine (reading and writing including symbols and arrangement).</td>
<td>- Place value of number as well as reading and writing numbers from 11 to 99.</td>
</tr>
<tr>
<td>- Concepts of number 10 and zero.</td>
<td></td>
</tr>
<tr>
<td>- Place value of number as well as reading and writing numbers from 11 to 99.</td>
<td>- Concepts of number 10 and zero.</td>
</tr>
<tr>
<td><strong>Operating numbers</strong></td>
<td><strong>Operating numbers</strong></td>
</tr>
<tr>
<td>- Adding and subtracting two numbers within the limits of 99 without renaming them</td>
<td>- Adding and subtracting two numbers up to 999 without renaming them</td>
</tr>
<tr>
<td>- Adding three numbers within the limits of 99</td>
<td>- Adding three numbers up to 999</td>
</tr>
<tr>
<td><strong>Quantities and measurement</strong></td>
<td><strong>Quantities and measurement</strong></td>
</tr>
<tr>
<td>- Identifying unstandardized length units</td>
<td>- Identifying standardized length units</td>
</tr>
<tr>
<td>- Identifying unstandardized weight units</td>
<td>- Identifying standardized weight units</td>
</tr>
<tr>
<td>- (heavier lighter)</td>
<td></td>
</tr>
<tr>
<td><strong>Geometric concepts</strong></td>
<td><strong>Geometric concepts</strong></td>
</tr>
<tr>
<td>- Identifying concrete and geometric shapes</td>
<td>- Identifying some simple characteristics of concrete and geometric shapes</td>
</tr>
<tr>
<td><strong>Social studies</strong></td>
<td><strong>Social studies</strong></td>
</tr>
<tr>
<td><strong>Family</strong></td>
<td><strong>Family</strong></td>
</tr>
<tr>
<td>- Members of the family and their roles</td>
<td>- Family relationships rights and duties of pupils towards the family.</td>
</tr>
<tr>
<td>- family relationships</td>
<td></td>
</tr>
<tr>
<td>- rights and duties of pupils towards the family.</td>
<td></td>
</tr>
<tr>
<td><strong>Home</strong></td>
<td><strong>Home</strong></td>
</tr>
<tr>
<td>- Its place and contents</td>
<td>- Service institutions (hospital police station</td>
</tr>
<tr>
<td>- types of homes</td>
<td>- post office fire station bakery)</td>
</tr>
<tr>
<td>- how to clean the home and protect it</td>
<td></td>
</tr>
</tbody>
</table>
An activity on useful and harmful animals designed by the Egyptian team of researchers and teachers follows:

1. Objectives

The pupils should be able to:
- Show the uses and benefits of each animal.
- Mention the names of useful animals and harmful animals and calculate the total number.

2. Audio-visual aids:

Some eggs ■ a kilo of cheese ■ a kilo of tomatoes ■ a kilo of fruit ■ a pair of scales ■ a carton of milk ■ a jar of honey ■ bags made of leather ■ woollen cloth (or pictures of the above).

3. Presenting the activity:

The teacher brings the aids (or pictures) and asks these questions:
- How many eggs are there?
- How much do the cheese and tomatoes weigh?
- How much do the cheese, tomatoes and fruit weigh?
- If the price of a kilo of cheese is 5 pounds, a kilo of tomatoes is 1 pound, a kilo of fruit 2 pounds, what is the total cost?
- What do you like best among these things?
- Why do you like them?
- What do we use them for?
- Do you drink milk, eat cheese, meat, eggs, etc.?
- How do you like your milk, cheese?
- What is the bag made of?
- Where do we get it?
- Why is milk useful to us, where do we get it?
- What does a mother do to milk before drinking it?

- Why do we boil it?
- What happens if we drink milk without boiling it?
- Where do we get the cheese, eggs, meat?
- Are all animals useful?
- The teacher asks the pupils about harmful animals:
- Do you know of any harmful animals?
- Why are they harmful?
- Have you heard about somebody who was harmed by these animals?
- How was he harmed? What did he do?

The teacher asks the pupils to name some harmful animals and to show why they are harmful. The teacher may tell them a story or ask a child to tell them about this activity.

4. Evaluation:

(a) The teacher presents some oral puzzles about harmful and useful animals, e.g.

- My honey is medicine
- My honey cures
- I take it from flowers
- I take it from roses
- I give it with pleasure
- But without jealousy
- Who am I?
- Who am I?
- I am an insect that flies
- I follow tasty food
- I carry infection
- I cause disease
- I hate cleanliness
- I live in dirt
- Who am I?
- Who am I?

(b) The teacher distributes activity cards to the pupils which include pictures of useful and harmful animals and asks the pupil to place the pictures in one of the boxes marked ‘useful’ or ‘harmful’.
Chapter II

Improving primary school pedagogy through activity-based learning

The following chapters are based on the reports of the four countries and discussions at the UNESCO Technical Consultation, Addis Ababa, 14-18 November 1994.

During the presentation made by the representative from the Bernard van Leer Foundation (Torkington, 1994), emphasis was laid on the rapid cognitive development which occurs in the early years of life. Children's experiences in early life can determine their learning patterns in later years. In the poorer and disadvantaged communities young children's educational development is a cause for concern. Particular attention needs to be given to how children learn and not just what they should learn. This would help educators to focus upon the methods, processes and approaches used in teaching as well as the appropriateness of the knowledge and content taught (Torkington, 1994). These methods require educators to look beyond the school classroom in forming partnerships with others with whom children learn. Much more emphasis needs to be given to the role of parents, families and older siblings in helping young children to learn. This would clearly require a more flexible role for schools and teachers and a greater understanding of how young children learn from people and things in their immediate environment.

The aim of the new curriculum is to use the natural learning techniques, materials and feelings that children bring to school as a means of bridging the gap between the community and the school. This is a monumental task in schools with large enrolments, poor buildings, few learning materials and poorly trained and unmotivated teachers. It has been accomplished with some success in several countries (see Little et al., 1994) but large scale change has demanded time and commitment at the national level. When primary schools have been changed from places of rigid learning where pupils are bored to exciting centres of learning, three strategies contribute to success. These are: relevance, variety and pace.

Relevance:

This is the need to teach concepts and skills that are relevant to the child living in a particular community. If colours are the subject of a lesson it is best to use the clothes worn by the children or the teacher as the teaching aids rather than charts.
hung on a wall. If the lesson is on changes in materials when heat or cold is applied, then the examples should be from the cooking of familiar foods, preferably in the classroom, rather than examples from a book or a wall chart. When learning the sounds of words, it is more exciting and personal to learn the initial sounds of the names of the children in the class. Games can be used for this learning purpose with children looking around the room to find and silently point to, a child whose name begins with the same sound as its own. Relevance also applies to reading materials. There is a rich store in the community of traditional stories and historical events (for example, a big flood which occurred last year). When these are the focus of a lesson key words might be written on the board to create a class word list. Small groups of children might tell their own stories to the rest of the class while the teacher writes the personal word list on the board.

Variety:

Natural learning opportunities in the community are changing and numerous. Young boys watch their fathers at work for a while, then dash off to play with their peers. Girls imitate their mothers. They also play with dolls or sing songs. There should be variety in the kind of activities children perform (say, reading a book, writing their names, listening to a story) and also in the kind of grouping in which they participate (e.g. class, small group, working alone). For fifteen minutes the whole class may read, take a quick break for a song or a chance to draw, then the entire class stands to play an action game while near their desks. Variety is needed in activities but also in the social groupings of the learners. This will maintain alertness and make each lesson more effective.

It is important here to recall the Ethiopian game Segno-Maksegno which lasts for 45 minutes or more. In this situation it is the children who set the tasks.

Pace:

Young children of six or seven years of age, have difficulty concentrating on ideas and tasks which are imposed on them. Most are willing learners who will struggle to see the chalkboard, listen to a teacher, but soon retreat to day-dreaming or even quarrelling when kept too long at one task. Paradoxically, more real learning time will be provided if lessons are kept brief, say, 10-15 minutes. When the brisk lesson is over, the class can turn to another activity, singing or reciting a poem or telling a story before resuming quieter tasks. Children will learn quickly (their natural pace) when the lessons are brief and well planned.

Teachers would need to follow principles of active learning. They could:

(a) provide children with activities to assist the learning programme
(b) plan for particular groups of children (language, age, ability)
(c) encourage co-operative learning
(d) stimulate problem-solving based on direct observation of the local environment
(e) work co-operatively with parents and the community
(f) observe and assess the range of learning
(g) develop social responsibility in children through the classroom structure and negotiated rules
(h) create an organised, attractive and exciting class environment

Teacher Development

The role of initial and ongoing training for primary school teachers is crucial for improving the quality of the learning experiences of young children. Teachers of grades 1 and 2
children face an even more challenging task, when they have to initiate the young child into the ways of school learning, especially when children have had no earlier preschool education. The main problem is how to provide an appropriate, high standard of training, in what is normally a relatively short period of training time and with limited resources. The issue is not simply one of what teachers should teach but also how they should teach in order to foster effective learning.

Grades 1 and 2 teachers require a clear understanding of young children's development in the natural and home environment, and a commitment to building on what the child already knows, understands and can do. This calls for a very different method of teaching from the traditional didactic type used in most primary schools and training institutions. It calls for a more active and participatory style of teaching (1994, Bernard van Leer Foundation). The most effective way to develop active learning skills in student teachers is to use participatory teaching methods in training student teachers. This can ensure that student teachers use their existing experience and knowledge to actively learn using what they already know as a starting point and then deepening and extending that knowledge. Teacher trainers need the appropriate skills to develop such learning and emphasise the value of it. Trainee teachers can learn through doing, talking, thinking and debating. This should also be supplemented by academic and text study.

Participatory and active learning methods enhance students' understanding, confidence, self-esteem and independent thinking, all of which are pre-requisites for the development of committed and motivated teachers who, in turn, are more likely to rise to the challenge of active learning and see the value of community involvement in grades 1 and 2. Drawing on their previous experiences student teachers can explore the value of play, the learning that took place in their own home and communities and the importance of communication. They can also apply this to young children's learning. Clearly there are many constraints and inhibiting factors in teacher
training of the centrally controlled curriculum in many countries. However, teacher training cannot ignore the relationship between the effective delivery of curriculum content and the process of learning. Teacher trainees require appropriate instruction in both to optimise learning.

Once teachers are in school they require a structure of ongoing support and training to build their capability further in the specific contexts of the age groups they teach, the education policy followed and the curriculum prescribed. This could be progressively developed as resources become available. Given that individual schools have limited resources, the introduction or upgrading of existing resource and pedagogical support centres can offer support to teachers. These can be placed in schools or in centres which serve a cluster of schools. Teachers could use these centres to prepare teaching aids and materials and to share information, ideas and support other teachers. The centres could also be used to exhibit materials made by teachers, display children's work, sell resources and act as a meeting place for ongoing training courses or conferences.

Teachers are more effective when motivated and when they feel their efforts are valued and lead to personal promotion. A career structure for teachers offers incentives and rewards for the most able and aspiring teachers. These are the teachers most capable of initiating and sustaining progressive innovation. In considering promotion several criteria could be devised. These may include attendance at ongoing training courses, the development of relevant teaching and learning materials and the demonstration of a sound repertoire of active learning and assessment techniques (1985, UNESCO/UNICEF). Such a policy would encourage innovation in teaching styles and the development of ideas that foster effective learning. If teachers perceive themselves as innovators and agents of change, it will be possible to encourage specific innovations. Teachers might for instance be involved in project developments such as the creative use of pupil/monitors or group leaders for particular learning activities devised for slow learners.

Many countries tend to recruit student teachers straight from school, especially those teachers who are later trained for primary teaching. Teaching young children is so demanding that it requires the ablest individuals. The youngest children in a primary school bring with them a good deal of natural learning, but little formal knowledge, literacy skills or sometimes the language of the school. Particular attention should be given to the recruitment of more experienced and mature women and men as well as those who are from the same linguistic and cultural community as the children. This would ensure a secure, safe and communication-centred environment. Teachers will in any case need the knowledge and skills to teach young learners who do not speak the language of the school. They will also need the positive attitudes necessary to learn about the children's language and cultural backgrounds and be willing to let children work with their peers in their home language.

The teacher's commitment to and understanding of and appreciation of the child's environment are key elements in nurturing the educational achievement of the young child. As Myers puts it:

'Perhaps the most important element in school quality, apart from the children, is the teacher. The ability of the teacher to take advantage of such materials that exist and to create others, to respond to children's needs, and to maintain enthusiasm in unfavourable conditions can create quality' (The Twelve Who Survive: Strengthening Programmes of Early Childhood Development in the Third World, p. 32, 1992).
**Family and community support for education**

The family provides the primary educational environment for the child before it enters school. Children are active learners from birth. The home curriculum has a content, methodology of learning and a language of transaction which is often different from that of the school. The knowledge children acquire in this way is localised and the differences can be due to the geographic setting, that is, rural or urban or the social, cultural and economic circumstances. Children's general knowledge is likely to include family relations (which are often highly gendered), religious festivals, marriages, births and deaths. Specific knowledge related to gender roles might involve girls in more child care and domestic chores such as cooking. Both boys and girls will have knowledge and experience of play, games and work.

Much of the curriculum material found in schools is written by educationists in urban communities who are detached from a knowledge of the local language, society and cultural traditions. It therefore becomes the responsibility of the teacher to localise the curriculum and to enlist the support of the local community and families in framing school policy and practice and making the school and educational materials familiar and relevant to the children's experience.

Parents and children bring to the school a wealth of cultural, linguistic and economic experience which the school can call upon. Children from low-income and majority families have the most to gain when schools involve families. Parents do not have to be well educated to help and we know that involving parents in their children's formal education improves student achievement.

Information from parents should be used as the foundation on which to build curriculum for grades 1 and 2. For instance, if children are engaged in some form of child care in the family they are likely to have some of the following experiences: feeding, carrying, washing, cooking for and dressing a baby or younger sibling. These activities will have required the child to use a specific vocabulary to solve problems and assume responsibility. Similarly, parents may provide information regarding other common experiences such as shopping, looking after domestic animals, fetching water, playing games or helping in the market. It could assist the teacher to determine what kinds of experiences a child has had in relation to money and change, counting, weighing, understanding rules or aspects of environmental science.

Young children enjoy learning and feel secure and comfortable when they are put in learning contexts which start with what they know. Items from the home and community should be visible in the classroom and used as starting points for developing learning based on themes which children understand, such as the market place. Items which are easily accessible such as clay pots or shells or local grains and vegetables which the children and teacher can bring into school from home should be used. Children’s familiar or special
Civic lesson

items stimulate discussion and are a good source of interest. Topics which involve the community have to be carefully planned by the teacher to ensure continuity and the development of learning. For instance, an everyday clay pot used as an item of discussion could generate a class display on clay pots and other clay items. A skilful teacher would extend and deepen this knowledge by taking the children to a local pottery and/or inviting a community potter to explain to the children where clay is found, how it is moulded, fired and finally sold. Children could take home specific questions to ask their parents about where they buy their pots, how much they cost and which are the best/worst and why this is so.

Families will be involved if children are asked to take home news and stories learnt and discussed in school. Similarly, both factual information and news and folk stories from the community should be brought into the classroom. Children and families come to school with a rich repertoire of skills and knowledge. Teachers fail to use this natural resource if the family and community environment are kept separate from what happens in schools.

Families can also help to upgrade and improve the classroom environment. Parents, grandparents and other relatives and friends can be asked to make small financial contributions in money or give something that could be sold to raise funds for particular projects, such as the setting up of a small school library, or for buying materials to build shelves for classrooms. Not all parents can help in this way but all efforts to become involved should be welcomed.

In some cultures children are discouraged from talking. Working with parents to explain the value of talk in learning or of active learning could be themes which are explored on parent days. The oral traditions of many communities are under utilised. Children and parents can work together using family events and stories or local folk tales to construct class books illustrated by the children. This can be great fun and educationally it is more likely to stimulate an interest in reading in the children rather than the use of only manufactured and commercial reading materials.

The support of the local community can also be encouraged by providing school open days, writing articles for the local newspaper or inviting the village council to visit the school and to see how it operates. Local artisans and professionals such as carpenters, police officers and nurses should be encouraged to help the school to develop children's woodwork skills, learn about road safety or about personal hygiene. It is also desirable if schools can offer support and educational services for parents, such as literacy classes or health education for women. Schools can encourage the development of Parents' Associations as a way of strengthening links between the home and the school.
Language and communication

The vehicle for many different kinds of learning is language. Children's ability to communicate helps them to relate to and reflect upon their daily and educational experiences in order to extend their learning. If children are unable to communicate effectively in school it will hinder their intellectual and academic development. Some children experience a gap between the language they bring to school and the language of the school. In this context the child's home curriculum becomes meaningless and its language may be out of place in the classroom. It is therefore not surprising that many children drop out of school before completing grade 2. Even for those who remain in school, the achievement of children whose socio-cultural background is somewhat different from that provided by the school tends to be poorer than that of their classmates (Gordien, 1994).

There are two common language gaps. The first is when the child has a completely different home language or regional dialect from the one used at school. Secondly, even when the home and school language are the same, the child might not be familiar with the more formal, literary style of the language used by the teachers during lessons. All children come to school with a basic communicative competence developed through their everyday use of language in the home. The child's starting point is therefore the spoken and action vocabulary that it has developed at home. The school language can be regarded by the child as alien and unfamiliar because it is usually based on the written text and the vocabulary of specific subject content.

By the time children come to school they are competent users of language and they can control many aspects of their environment by talking with others. Children can label, categorise and describe things. Children have also begun to ask questions as evidenced in the studies. However, they usually do not possess fully the ability to reflect on their experiences (Daswani, 1994). Teachers need to find out and build upon the children's use of the home language in the school context. In order to do this teachers need to be responsive to the action vocabulary the children already have. To use the action vocabulary of the children the teacher must allow them to talk and to engage in class discussions. A discussion on the theme of food or insects, for instance, will quickly reveal the children's own vocabulary. Talk requires interaction and this in turn fosters communication and reflection. The children's active spoken language can then be used as a starting point for developing learning. It can be reinforced through writing in class stories and lessons based upon the children's experiences at home.

Where the children's home language is completely different from that of the school the approach has to be different. This will partially depend on the resources available. It is preferable, wherever possible, to teach a child through its home language and this is why the special recruitment of teachers from minority languages is needed. However, this is not always possible and therefore teachers must have the skills to develop the language competence of the children using the most appropriate second language teaching techniques.
Failure to achieve literacy in early schooling can hold a child back throughout its education (and life). How can children learn to begin to read based on the linguistic resources they bring from home? That is, what kind of experiences are needed for the child to begin to make the transition from control of oral language to writing? For written language to become meaningful the child must first see its everyday action vocabulary being transferred from the spoken word to written words and then read about it. This will allow the teacher to build on the child's meaningful language rather than develop an isolated skill, based on unfamiliar words. The use of reading materials which are socially and culturally familiar, such as the children's own stories, or stories which are predictable, infuse children with a sense of control and confidence in their ability to read.

The teacher should create, as far as possible, an environment rich in words, sentences, songs and stories. Even within the constraints of very limited resources the teacher can label things in the classroom by writing their names on paper or labelling them with chalk such as 'wall', 'door' and so on. One of the first written words children take an interest in is their own names. Each child could have its name label and use this to play games such as matching letters. The teacher should read stories to the children every day or use simple stories from the children to write on the blackboard. These stories should then be read several times a day to reinforce the children's spoken words with their representation in print. The teacher could make class books based on the experiences children have in school, how to celebrate a local festival, the recipe for a favourite local dish or a set of rules devised by the children on appropriate behaviour in the classroom. The regular and systematic use of written rhymes, songs, poetry and favourite stories can promote reading as an enjoyable activity for children and enhance their desire to read for meaning.
Learning to read and write is the most critical input to education for all and ultimately for lifelong learning. Mastery of these skills in the early years of primary education should be the most urgent priority for education planning and development. Teacher education, teaching and learning materials development, curriculum and supervision geared towards enhancing learning in the early primary grades should be the subject of educational research at both national and school levels and determine quality improvement in education. In reality, these early grades are the prime sources of the deficiencies in primary schools. Keeping in mind that most children who enter primary school are participating in organised educational programmes for the first time, the school must offer a transitional programme in grades 1 and 2 and allow children to adjust gradually to being at school.

The policies and policy objectives would concern: the source, scope and sequence of the content of the curriculum; the type and preparation of the teaching and learning aids; the approach to teaching and learning (child-centred); the training of teacher trainers and teacher trainees; the distribution of qualified teachers in schools, the involvement of communities and families in the education of their children and action research at the school level.

The research is intended to provide insights into the manner in which teachers might bridge the gap between the early learning experiences of children at home and grades 1 and 2 of primary education in schools. This report has outlined and reviewed some of the alternative teaching and learning strategies which need to be employed in primary schools to optimise learning and to minimise school drop-outs. In particular, issues relating to the use of the child’s knowledge of the home environment, language and natural learning processes have been highlighted.

Issues of pedagogy, as described earlier, must articulate at some point with the critical issue of policy in order to facilitate and mobilise the necessary strategies for change. In order to address some of the severest educational problems in primary education, policy makers should develop strategies and mobilise resources to:

(a) train primary school teachers differently for lower and upper primary grade specialisations;

(b) recognize that the greatest educational gains are to be achieved by placing the most able and highly qualified teachers in the lower grades;

(c) devise teacher training curricula to include guidance on young children’s learning needs, language and bilingual development and appropriate active-based pedagogy;

(d) develop career structures for teachers to increase motivation and commitment and the provision of ongoing training;

(e) evaluate the appropriateness of current national curricula and assessment arrangements in keeping with child-centred assessments and the curriculum content process;

(f) review the strategies by which agencies such as UNICEF, UNDP, etc., and governments and NGOs could pool resources to work together to promote change;
(g) develop relevant curriculum materials based on the children's home languages and culture.

This Technical Consultation would not have been possible without the support of ministers in government and other policy makers. It is testimony to the value placed on early childhood education (see Annex). The four countries' (Indonesia, Jamaica, Ethiopia and Egypt) research projects which were commissioned by UNESCO were also supported by UNDP and the country governments. In each case research was conducted through government research centres.

The findings of the study confirm that children bring to the primary classroom a wealth of knowledge on which teachers can build important concepts in mathematics, science and social studies. Children have already attained a language of communication and are used to communicating with each other and with adults. Such findings have important consequences for the learning environment in grades 1 and 2.

Whether children attend organized pre-school programmes or not, establishing the bridge between the six or seven years of experience children gain before entering primary schools is fundamental to their retention and success. It is time for education to take action to establish grade 1 as a transitional grade and to prepare teachers and schools to receive the children accordingly.
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Annex 1

Opening address by Mrs. Genet Zewdie, Minister of Education, on behalf of the Transitional Government of Ethiopia.

Distinguished Representatives of UN Agencies and the OAU

Dear Participants, Ladies and Gentlemen

On behalf of the Transitional Government of Ethiopia and myself I welcome you all to Ethiopia. We are highly honoured by your acceptance to come to Ethiopia to share with us the developmental problems and prospects of early childhood education.

Although early childhood education on the lines of the developed world is a recent undertaking in Ethiopia, we have had a long tradition of mechanisms for the transmission of knowledge. Church and mosque education, as well as other cultural education programmes, have played important roles throughout the years.

Those traditional efforts, other than being very limited in their coverage, had very narrow objectives – the production of clerics for the respective religions. At present, however, we firmly believe that early childhood learning is the basis for the future mental and social development of the child and the need for due emphasis and development of a programme based on concrete local experience and culture of learning.

It is along this line of thought that we gladly accepted to be the host for this important international workshop.

As you know, early childhood learning starts from the day the child is born. Research indicates the first three years to be critical. The years from three to six are even more important for they are the building blocks for primary schooling. We hope your deliberations will also touch upon this chain for they are inseparable.

It is my firm belief that the experiences you gain from this workshop will help to sensitise all those concerned to the problems, issues and needs regarding early childhood education that we must unrelentingly continue to address individually and collectively.
Ladies and gentlemen!

You will agree with me that the problems of confronting the development of early childhood education in developing countries are, by and large, similar and they can be solved more quickly if we work in close co-operation. This workshop is a clear example of how we can cooperate to share our views and work together towards solving the problems.

At this point in time when we have just begun implementing a new education policy which puts special emphasis on early childhood education and also on the career structure of teachers by the adoption of a new teacher salary scale, the holding of this workshop in my country will provide new ideas and input into our thoughts and practices in these areas.

I remember about a year ago, a national workshop on early childhood education was held at this very place. This programme, which was jointly conducted by the Ministry of Education and the Golda Meir Mount Carmel International Training Centre in Israel, gave us the chance to look back seriously and critically at our experiences in this area and objectively and constructively develop policies and strategies to improve the status of preschool learning in Ethiopia. Today we have an even greater opportunity to learn from the experiences of several developing countries participating in this workshop.

I believe that this workshop will help you review the educational philosophies and methodologies currently influencing early childhood education in the world.

Through different deliberations, activities and discussions, you will enrich your professional capacity and contribute towards the development of early childhood in your respective countries.

Allow me to conclude by stating that while you are here the Ministry will be at your service to make your stay enjoyable and this important workshop a success.

I wish you a fruitful working week. Thank you all.

Remarks made on behalf of Mr. R. Tuluhungwa, UNICEF Representative

Your Excellency Mrs. Genet Zewdie,
Minister of Education
Mr. Chairman
Distinguished Ladies and Gentlemen:

On behalf of the UNICEF representative Mr. R. Tuluhungwa, who is on an urgent call of duty outside Addis Ababa, allow me to express my appreciation for this opportunity for UNICEF to address this very important gathering.

As we are all aware, the physical and mental foundations of human beings are laid from 0 to 6 years of age. The child has developed certain attitudes and patterns of behaviour which influence subsequent development in adulthood by the time it reaches the age of six years. Therefore, the quality of care, guidance and socialisation that a child receives from 0-6 years of age is of vital importance.

In view of this, UNICEF’s policies have reflected the need for a comprehensive view of children’s developmental needs including their intellectual, social and emotional development.

During the Year of the Child in 1979 many pre-school programmes were started in many developing countries. However, since most of these programmes did not incorporate health and nutrition components, they failed comprehensively to address the developmental needs of children.

Recognising the inadequacy of pre-school programmes, the 1984 UNICEF Executive Board strongly endorsed a broad policy recommendation which specifically referred to the following:

- concerns for comprehensive child development include concerns for the survival, health care and growth monitoring of children and attention to the learning and stimulation required to help them realise their full potential
- The intellectual, social and emotional aspects of child development should be treated in UNICEF basic services and primary health care programmes
- systematic attention should be given to creating a stimulating environment for the psycho-social development of the young child
Activities should be tailored to the local context and should aim to draw on and to strengthen the resources available in the family and community and

Particular attention should be paid to the needs of mothers during pregnancy and of children from birth to 2 years of age, as well as to ensuring that programmes for the 3 to 6 year olds address a broad range of developmental needs, especially those of children living in poverty and affected adversely by forces of socio-economic change.

As is very well known to you, UNICEF has been supporting Ethiopia's efforts in Early Childhood Care, Development and Education (ECCDE). As part of the July 1994 to June 1999 Government/UNICEF Country Programme of Co-operation, UNICEF is now committed to supporting the following in relation to ECCDE:

- The development of strategies and guidelines at the national level as well as capacity building for the adaptation and implementation at the regional level
- The training of early childhood education specialists in child survival and development as well as in gender related curricula at the national level
- The training of ECCDE instructors at the regional level
- The provision of technical and financial assistance for the establishment of low cost, community-owned and culture-sensitive child care and education centres in the focus districts for integrated basic services.

UNICEF, Addis Ababa, has also appointed a Project Officer for the ECCDE component of the Country Programme.

All of us in UNICEF wish you a fruitful consultation and a pleasant stay in Addis Ababa.

Thank you.

Remarks made by Dr P. N. Makolo on behalf of UNDP
Centre for educational staff development,
Ministry of Education,
Addis Ababa. 14-18 November 1994

Mr. Chairman, Hon. Minister,
Ladies and Gentlemen

It is a great pleasure for me to be here today and join in this consultation on early learning experiences of children aged between 0 and 6 years of age, on behalf of UNDP. In 1990, UNDP co-sponsored the World Conference on Education for all in Jomtien, Thailand, 5-9 March 1990 and made a commitment to education for all. Today by sponsoring this International Technical Consultation on the Early Learning Experiences of Children (0-6 years), UNDP makes a commitment to the education of children of the world.

As a result all national and international organisations have been asked to participate and are invited to join this effort. I am glad to see so many people here today. We are all here to make this a better world for the child, especially the preschool child who is under 6 years of age. I hope that we are here to reaffirm that commitment. I hope that children can count on that commitment in good times and in bad times and that it will not be superseded by other priorities that suddenly seem more urgent. We have been given the opportunity to begin shielding the lives and the normal growth and education of children from the worst excesses, misfortunes and mistakes of the world into which they are born. And if we do not take care and choose to neglect the early learning experiences of children from birth to 6 years, we will one day be regarded as strange and as uncivilised as is the notion of slavery today.

Throughout the developing world, educational policy-makers face difficult choices as they seek to improve the outcomes of schooling. On the other hand, resources for school improvement are scarce: overall spending for education is limited and initiatives to improve school quality must compete for resources with proposals to expand the provision of education. On the other hand, policy makers confront a multiplicity of
options: improving facilities, supplying educational materials, improving the in-service education of teachers and strengthening school management and supervision, to name a few.

One strategy for improving the outcome of primary and secondary schooling is to expand access from birth to 6 years. We know that preschool experiences may prepare children cognitively to benefit from primary school instruction. We also know that this head start may be especially important for those children under six whose home educational environments prepare them least for the demands of the primary school classroom.

Indeed there is evidence from research to show that well conceived, well implemented early learning programmes can significantly increase the cognitive outcomes children obtain during their primary school years. Effective early learning for poor children has significant lasting and substantial effects on overall educational attainment and social behaviour. Buoyed by these arguments and by the encouraging results of research, many commentators have conceived the early learning experience of children as a major policy strategy not only for improving the average level of student achievement but also for reducing social disparities in educational outcomes. Ironically, however, there is compelling evidence indicating that, at present, the early learning experience in Africa actually magnifies rather than reduces urban-rural and social disparities in educational attainment.

There are two reasons for this occurrence:

1. Disadvantaged children are substantially less likely than advantaged children to have access to pre-primary education. Studies in some African countries have found that pre-primary programmes are found most often in urban areas to serve children of relatively high socio-economic status.

2. When disadvantaged children have had access to pre-primary education, their schools were generally of lower academic quality with less intensely academic curricula, larger child-staff ratios, and teachers with less training – than those attended by more advantaged children. Such schools often emphasize nutrition and custodial care more than cognitive development. And, although there is some evidence that improved nutrition, health surveillance and custodial care can, by themselves, increase academic achievement, such effects seem necessarily of lesser magnitude than those of cognitively oriented programmes that also guarantee appropriate health, nutrition and socialisation.

These are the issues that I hope will be thrashed out at this consultation. These are issues to which we really do not yet have answers. This was an area that we in Africa did not really consider until recently.

Although there is agreement that expanding access to early learning has positive benefits, scarce resources still confront policy-makers with dilemmas. Moreover, a proposal to expand the early learning experience must compete with proposals to expand access to the primary, secondary and higher education sectors. We do not have answers for approaching these dilemmas which policy-makers, nonetheless, cannot ignore. There are a lot of important questions that we need to try and answer at this forum, even after a decision is made to expand investment in early learning experiences. However, a new dilemma arises: Should investment maximise access to early learning? If so, what minimal quality standards must be guaranteed? Perhaps a wiser investment would be to guarantee the highest possible quality, allowing access to expand only slowly. If quality is the key, what minimal access is required to make the programme meaningful? I hope that the results of this consultation will shed some light on these questions.

I would like to take this opportunity to thank UNESCO for giving us the forum to do it.

We are looking forward to the results and the conclusions that will be reached at this consultation. We hope they will assist us in making the right decisions in our organisations.
Mr. Chairman, Hon. Minister,
Distinguished Ladies and Gentlemen

It is with great pleasure that I welcome all of you to this consultation on behalf of the Director-General of UNESCO, Mr Federico Mayor.

I wish to express our deep appreciation and thanks to the Hon. Minister, Mrs. Genet Zewdie, and through her the Ministry of Education and Ethiopian authorities for accepting to host this important consultation on the early learning experiences of children aged between 0 and 6 years at very short notice.

Addis Ababa was chosen for several reasons. Ethiopia is the nerve-centre of Africa and Addis Ababa is its heart, while the Ministry is its soul. For without education one is a ‘living dead’ and I am told that Addis Ababa means new flower. The second reason is the equable climate which is cool in the evenings and mornings and warm in the afternoon. The third reason is the generosity, warmth and the friendliness of the Ethiopian people, whose intellectual capacity has always led to original ideas and creative imagination.

We decided to come to Ethiopia for the consultation because as the custodians of the conscience of the United Nations family, we wanted to use the opportunity to spread the information on the Universal Declaration of Human Rights of the United Nations, whose article 26 states: that the goal of the content and purpose of education is the promotion of understanding, tolerance and friendship among all nations, racial or religious groups. Article 55 of the Charter of the United Nations itself also states that in order to achieve friendly relations among member states, international cultural and educational co-operation is needed. The right to education and international educational co-operation are inseparable elements - two faces of the same coin; and they are both crucial elements in the mandate of the United Nations Educational, Scientific and Cultural Organisation (UNESCO), whose constitution, Article 1 enjoins it to contribute to peace and security by promoting collaboration among the nations through education, science and culture and by instituting collaboration among nations to advance the ideal of equality of educational opportunity without regard to race, sex or any economic or social distinctions, and by suggesting educational methods best suited to prepare the children of the world for the responsibilities of freedom.

Ladies and Gentlemen:
We have brought this group of women and men from many nations to share their ideas on the early learning experiences of children (0-6 years) in order to translate into action the fundamentals of international co-operation and the right of every child to education.

In conclusion and without touching the main theme of your consultation, let me remind you of two key points: one is contained in the 1959 United Nations Declaration of the Rights of the Child, which states: The child is entitled to receive education which shall be free and compulsory, at least in the elementary stages. He shall be given an education which will promote his general culture, and enable him on a basis of equal opportunity to develop his abilities, his individual judgement and his sense of moral and social responsibility, and to become a useful member of society. What methods shall we use?

The second point is well illustrated by the presence here of my colleagues of the United Nations family. By their distinguished presence, we are together giving expression to both inter-agency and international co-operation designed to recognize the right to education of the child.

I wish you a happy stay with us and a very successful consultation.

Thank you.
Annex 2

Programme

Monday 14 November
10.00
Opening addresses
Aims and Working Paper
Presenter: Dr Winsome Gordon, UNESCO
2.30 - 3.30
Early learning experiences as the foundation for success at the primary level
Presenter: Mrs Kate Torkington, Van Leer Foundation
4.00 - 5.00
Working groups

Tuesday 15 November
9.00 - 10.30
Alternative approaches to teaching and learning in primary schools
Presenter: Professor Kathy Sylva, Institute of Education, University of London
11.00 - 12.00
Linking the known to the unknown – foundations for concept formation in science, mathematics and social studies
Lead presenters: Representatives of Indonesia and Jamaica
14.30 - 16.00
Learning to read with pleasure
Presenter: Dr. Elaine Carter, International Reading Association, Jamaica

Wednesday 16 November
Morning session
Field visit

Afternoon session
Working group meeting

Thursday 17 November
9.00 - 10.30
Bridging the language gap
Presenter: Professor C. J. Daswani, National Council for Educational Research, New Delhi
10.30 - 12.30
Application and utilization of research findings to enhance the curriculum and teaching and learning in grades 1 and 2
Lead presenters: Representatives of Egypt and Ethiopia

14.30 - 16.00
Working group meetings

Friday 18 November
9.00 - 10.30
Presentation and discussion of the reports of the working groups
11.00 - 14.30
Concluding message and closing remarks

Annex 3

Name
Mr Mohammed Abdulahi
Ms Bolalech Adefress
Mr Kedir Ali
Mr Debassu Asres
Ms Cheryl Borgches
Mr Carlos Browne
Dr Elaine Carter
Professor C. J. Daswani
Mr Shibeshi Degeffe
Mr Mequanint Ejigu
Mr Ahmed Elzefawi
Mr Assema Emru
Mr Kebbede Friesenbet
Mr Befedadu GfIsadik
Mr Getachew G/Tsadik
Ms Tesgie G/Selassie
Dr Winsome Gordon
Ms Diah Harianti
Ms Stella Karumuma
Mr Aherra Makonnen
Mr Menza Makie
Mr Musa Mohammed
Mr M. Musa
Mr Ochan Obarru
Mrs Yinia Olrua-Otoa
Dr Iram Siraj-Blatchford
Professor Kathy Sylva
Mr Debebe Tegegne
Mr Dereje Terefe
Mrs Kate Torkington
Ms Mutunesh W/Mariam
Mr Tesfai W/Michael
Mr Yohannes Yadessa
Mr Taweduda Zekaria

Country
Ethiopia
Ethiopia
Ethiopia
South Africa
Jamaica
Jamaica
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