

DOCUMENT RESUME

ED 135 531

RC 009 687

AUTHOR Postlethwaite, T. N.; King, K.
TITLE Curriculum Development for Basic Education in Rural Areas. IIEP Seminar Paper: 18.
INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Paris (France). International Inst. for Educational Planning.
REPORT NO IIEP-SP-18
PUB DATE 75
NOTE 37p.; Paper presented at the IIEP Seminar on "The Planning Problems in Rural Education" (October 13-17, 1975)
AVAILABLE FROM International Institute for Educational Planning, 7-9, Rue Eugene Delacroix, 75016 Paris (France) (\$0.60)
EDRS PRICE MF-\$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Community Involvement; *Curriculum Development; *Developing Nations; Educational Objectives; Foreign Countries; Generalization; National Norms; *Primary Education; *Program Descriptions; *Rural Areas; *Rural Development; Skill Development; Specialization; Theories

ABSTRACT

Section I of this paper discusses assumptions about ruralization of the educational curriculum in developing nations (both problematic and exemplary); Section II reviews the achievements of selected African countries in the school, community, and the student's post-primary work life and presents relative implications for curriculum reform. Major conclusions presented in Section I are: general curricular objectives must be the same for all children in most developing nations because curriculum is used to achieve national unity; there is a rural-urban continuum, rather than a dichotomy; current trends are to adapt the curriculum to a specific area and to create a series of parallel forms of the curriculum with the same general objectives; general skills should be taught because rapid change outdates specific skills; the concept of integrated rural development seems more viable than that of ruralizing the curriculum. Among the implications for curriculum reform cited in Section II are: preliminary research on children's work experience and community resource needs should be prerequisite to any curriculum development; the most complex reform task is to account for village contributions to skill formation and village perceptions re: investment in primary schools and then to examine, from a national perspective, whether the essential disciplines taught in any primary school should be more localized and made to interact more with the community infrastructure. (JC)

ED 135531

IIEP seminar paper:

18

**CURRICULUM DEVELOPMENT
FOR BASIC EDUCATION IN
RURAL AREAS**

T. N. Postlethwaite and K. King

A contribution to the IIEP Seminar
on "The planning problems in
rural education"
13 - 17 October 1975

200 francs

PERMISSION TO REPRODUCE THIS
COPYRIGHTED MATERIAL BY MICRO
FILM ONLY HAS BEEN GRANTED BY
John Hall for

IIEP
INDIVIDUAL AND ORGANIZATIONS OPERAT-
ING UNDER AGREEMENTS WITH THE NA-
TIONAL INSTITUTE OF EDUCATION
FURTHER REPRODUCTION OUTSIDE
THE ERIC SYSTEM REQUIRES PERMIS-
SION OF THE COPYRIGHT OWNER

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

**INTERNATIONAL INSTITUTE
FOR EDUCATIONAL PLANNING**
(established by Unesco)

7-9, rue Eugène-Delacroix, 75016 Paris

604 US

© Unesco 1975

REC 09687

CONTENTS

	Page
SECTION 1	
1. Introduction	1
2. Distinction between ruralising the curriculum and ruralising education	1
3. The three forms of ruralised curriculum	2
4. Discussion of some assumptions	3
5. Problems of curriculum development	5
6. More specific information	6
7. Examples	
a). The Namutamba Project	7
b). The Pahang Tenggara Development Project	9
c). An African project	16
Conclusions	18
 SECTION 2: The Primary School Achievement and the Community	
Background: Implications for Curriculum Reform	
Introduction	19
A. The achievement of traditional primary schools	19
i). The fabric	19
ii). Democratisation and access	21
iii). Knowledge, skills and values	22
a). Methodology	22
b). Language and literacy skills	24
c). Skills in school	26
B. Skills and work experience out-of-school during the primary cycle	28
C. Basic education in the context of post-primary work life	31
D. Summary implications for primary school innovation in basic education	33
References	34

CURRICULUM DEVELOPMENT FOR BASIC EDUCATION IN RURAL AREAS

This paper is divided into two sections. Section 1 discusses some assumptions about the ruralisation of the curriculum and some problems and examples of such work. This Section has been written by Dr T. Neville Postlethwaite of the IIEP, Section 2, written by Dr Kenneth King, Centre of African Studies, University of Edinburgh, reviews the present achievement in Primary 4 - 7 both in school and the community and in post-primary work life in selected African countries, and reviews the implications of these data for curriculum development.

SECTION 1

1. Introduction

Recently there has been a burgeoning of interest in the concept of basic education in rural areas. We have been asked to write a paper on "Curriculum Development for Basic Education in Rural Areas". We shall accept the definitions of 'basic education' and 'rural areas' given by the IIEP, namely:

Basic education programmes are seen as a planned series for events for a different number of learning objectives to be achieved. This series of events are seen as basic in the sense that they represent a minimum preparation to cope with life in terms of playing defined economic and social roles.

Rural areas are taken to mean areas which are neither urban, i.e. housing agglomerations with a population exceeding, say, 1,500 persons (this varies from country to country according to specific conditions), or suburban. In the latter case, the great shanty belts which circle the cities in developing countries and which are inhabited by displaced persons who have left the rural areas, but have not yet been fully assimilated into the urban areas, are excluded. Rural areas are characterized by the production of food, fish and products of hunting, and primary production associated with a subsistence economy together with associated artisanal production.

2. Distinction between ruralising the curriculum and ruralising education

In recent years there has been much talk of both ruralising the curriculum and ruralising education. These are, however, different issues. Ruralising the curriculum exists in perhaps three forms: revising the existing curriculum so that in Form A everything in the curriculum is somehow associated with work on the school farm and what might loosely be

called agricultural science (or rural crafts). Form B places moderate emphasis on this and Form C concentrates on reading, writing, arithmetic, some social studies (embodying nutrition and health education) and some general practical work. Which form is desirable is strongly debated in many countries and we shall return to the arguments below.

Ruralising education consists of providing schools in rural areas such that all children in rural areas receive primary education. This is a matter of social justice and is agreed national policy in developing countries.

We make this distinction since irrelevant debate often occurs because of a lack of differentiation between the two concepts.

3. The three forms of ruralised curriculum

There is an economic argument which it is important to consider first of all. As long as better paid jobs (usually in the civil service, industry and commerce) can be acquired through more years of education and as long as governments do not provide the necessary infrastructure in rural areas for rural jobs to be profitable, rural children will always try to acquire more profitable jobs and in this way will continue the so-called 'urban drift'.

To provide Form A of rural curriculum (intensive agricultural science or rural crafts) geared to the learning of very specific rural skills is considered by some to be excellent preparation for work in the rural environment and that, in this case, children will remain in the rural areas for their working lives. The argument against this is the economic one given above. Apart from this, it is very difficult, using manpower prediction studies, to predict more than one or two years ahead the existence of or the manpower required for sets of specific skills. Hence, given these two major arguments against, it is argued that to provide Form A of rural curriculum is the provision of a second-class education condemning such children to rural life for ever.

To provide Form B (about half-way between the intensive specific skill training and the general education) can be defended and attacked in the same way as Form A - only to a lesser extent.

To provide Form C (regular primary school up-to-date curriculum with a general practical bias - "To educate the hands as well as the head"), it is argued, is the sort of education which will fit children to a changing world, and allow them to go for more profitable jobs and further education. It is not the place of the school to provide specific skills which can either be learned on-the-job, in the community or in non-formal education short

courses (which will need to be revised as specific skills change). The important phrase in this paragraph is 'general practical bias', and much depends on how this is interpreted. There appear to be two components, as far as curriculum development is concerned. The first is practical work which children enjoy. The second is more carefully determined. This consists of conducting studies of the knowledge, skills and values required by the various jobs that school leavers will enter during or after primary school and on the basis of the gamut of occupations existing for them extract the general types of knowledge, skills and values which will allow children to adapt themselves to the specific tasks they will have to undertake in their working lives.

It is worth mentioning other less important, but nevertheless typical arguments against a ruralised curriculum as it exists in many places. The primary school teachers (even though many have their own gardens or farms), are ill equipped to teach 'agricultural science'. The tools and machinery are often antiquated or else too modern for the everyday life of the village - and so on.

It is also worth mentioning other arguments in favour of ruralising the curriculum. Whatever the economic pull of the urban areas, some children - the majority in fact - will be left in the rural areas and they should be more efficient in their daily work. If the school curriculum is adapted to the environment, schooling then becomes 'culturally relevant' for the child. Also, it is quite feasible to have good teachers and school farms and there is bound to be a multiplier effect of such good farming.

4. Discussion of some assumptions

As can be seen by the definition of basic education in the introduction to this paper, there appears to be an assumption that there are certain types of knowledge, skills and values which can be identified for either all rural areas or groups of different rural areas within a country which it will be necessary for children in those areas to acquire in order to cope with the social and economic roles they will have to play in the foreseeable future. But how long is the foreseeable future? Ralph Tyler recounts the story of a rural area in Nebraska farmed by some 30 farmers which within a period of 30 years, due to irrigation, was eventually farmed by two persons. If the original 30 farmers' children had been given an education to help them cope with farming, how relevant would this have been for their actual employment?

Since no society is static and since the types of employment can shift dramatically with increased mechanisation and irrigation, is it not the task of educators to educate children such that they are prepared for a changing world and learn how to learn in the coming years? Many curriculum centres are in fact very concerned with ways in which this can be done.

If we think of the first four or five years of primary education in rural (as opposed to urban) areas, can we really identify a set of skills which can be inculcated in school which will help children in the work they will do and the life they will lead after leaving school - or should we concentrate on a basic general education which will be the same for all children in the country? An argument in favour of education directly related to the economic and social roles to be played by school leavers is presumably based on the belief that such children will see the relevance of what they are doing in school to their expected work life and that their motivation for their school work and their interest in school and hence their performance will increase (cf. Carroll, 1975). There seems to be another supposition, namely, that the children will remain in rural areas and perform their economic and social roles more efficiently.

Against this we might note that the present urban drift seems, as far as the author knows, to be irreversible. Will those children who go to urban centres be disadvantaged from having received a 'rural' education? It is worth recalling that in developed countries some decades ago it was fashionable to conceive of certain parts of the curriculum being different for boys and girls - today such differentiated curricula would be frowned upon. Again, some time ago there were, through selective educational mechanisms, different curricula for what were, in effect, different social class groups. With the so-called 'equality of educational opportunity' movement, such differentiated curricula are disappearing. Are we sure today of the stability of the economic situation to be able to allocate rural and urban children to different curricula? And will both groups feel 'fairly' treated, i.e. not discriminated against, if given different curricula?

In many developing countries there is the concept of education for national unity. In other words, an attempt is being made through the mechanism of a set framework of education (and curriculum) to create a more homogeneous society. The concept of different curriculum for urban and rural is contradictory to the concept of education for national unity.

In reality no curriculum developers conceive of an urban/rural dichotomy. This is a false issue. Rather there is a continuum from very rural to very urban which exists in pretty well all developing nations, even though certain countries may be characterised as 80 or 90 per cent rural. There is, of course, rural and rural, and much depends on what goes under the rubric of rural.

5. Problems of curriculum development

Given the scarce resources for curriculum development which exist in many countries, can such different curricula be systematically developed and can the necessary materials (books, etc.) be produced?

There is growing consensus on a series of practical steps to be taken in systematic curriculum development (see Lewy, 1975):

1. The identification and specification of the learning objectives for a given subject (or set of subjects) at a given level of education.
2. The writing of the materials and decisions on the accompanying teacher and student activities (i.e. the structuring of the learning environment).
3. The try-out of these materials and activities on selected classes and subsequent revision of the materials and activities.
4. The implementation of this curriculum across the target population aimed at.
5. After implementation, a quality control check on how efficiently the curriculum is working.

Implied in the above points is also the notion that the curriculum will be continuously (in practice cyclically) reviewed and revised. The work involved in executing the above steps is, of course, enormous and in most cases it takes a curriculum centre all its time to produce just one curriculum for all persons in a country. However, different curriculum centres do attempt to produce curriculum for different groups of students (see below).

In terms of book production there are problems of increased costs in having different curricula. Take a hypothetical example. Let us assume that the necessary studies have been undertaken to identify the objectives to be learned in grades 4 - 6. It has been discovered that approximately 60 per cent of the objectives are common to all children in these grades, but that for 40 per cent different (how different?) curricula could be made

for different groups of children (say two groups). Assume also that the materials have been produced and tested. Should three separate books be produced - one for the 60 per cent common part, one for the 40 per cent in group 1, and one for the 40 per cent in group 2, or what?

In many developing countries it is the national curriculum development centre or organization which is responsible for the development of all national and sub-national curricula. In some cases there is a division of responsibility whereby a certain common curriculum is laid down for the whole country and a certain percentage of the curriculum is left to regional or even village determination (e.g. Tanzania).

One serious difficulty for curriculum centres is that often the group of persons designated as responsible for the production of the primary school leaving examination are rarely in any way connected with the curriculum centre. In many cases the leaving examinations do not reflect the curriculum of the last few years of primary school, and yet it is to the examination content that the teachers teach.

6. More specific information

As has been mentioned above, the urban-rural dichotomy is a false one and in reality there is a continuum from very rural to very urban. The concept of education for national unity is one of paramount importance.

Two main trends are beginning to appear in curriculum development work for general education, i.e. the first few years of formal schooling. In both cases there is a unified national curriculum but it is recognised that children within the nation do live in different environments.

The first trend is for the curriculum centre to identify particular areas where the environments are very different and to prepare for each area in turn a special curriculum taking the major objectives of the national curriculum, but adapting them to each area. In this case there is curriculum A for Region A, curriculum B for Region B, etc.

The second trend is for a curriculum centre (but still with a national curriculum) to produce materials appropriate to the environments at several points along the continuum. Hence if the curriculum centre were producing say a learning unit, several parallel forms would be produced. Ultimately it is each local community which should select the parallel form for each unit since some environments are similar in some aspects and differ in others. This trend, it should be stressed, is at present a hope rather than a reality.

There are several examples, which are well known, of attempts at what Unesco has called rural vocational guidance (see Education and Rural Environment - 2, Unesco Paris, 1974). These include Unesco's experimental projects in the two provinces of Canas and Canchis of Peru, and the Namutamba project in Uganda (which has been operating in some 15 primary schools). Oratas Barric schools in the Philippines and the clubs of young farmers, craftsmen and rural extension workers such as exist in the 4-K clubs in Kenya and the 4-H clubs in the US are yet other examples. These, however (with the exception of the Namutamba project), are all at the secondary level. The experiments under way in basic education at the primary level are in their infancy and curriculum workers in this area in developing countries are not prepared to be quoted on their projects until their governments have cleared such reports after the proven success of such projects - and most are still on-going!

7. Examples

Three examples will be given here.

a). The Namutamba Project

The general aim (see The Evaluation of the Namutamba Pilot Project, by E.A. Yoloye and S.T. Bajah, ICEE, Ibadan, July 1975) of the project was "to improve living conditions in a selected rural area and to assist the children, youth and adults to prepare for effective and rapid integration into the social, cultural and economic development of Uganda".

The specific aims were:

1. To explore and demonstrate ways and means of checking the rural exodus through the provision of sound experiences in general education, pre-vocational and vocational education.
2. To ensure a complete primary educational cycle to the greatest number of children.
3. To introduce new curriculum content, teaching methods and materials in the primary schools and in pre- and in-service teacher training.
4. To undertake or strengthen post-primary services and pre-vocational and vocational skills.
5. To provide functional literacy, general education, crafts, nutrition and health education for youth and adults.
6. To collect data on factors likely to impede or facilitate education in its task of assisting in the integrated rural development.

7. To provide data and information which may make it possible for other countries facing similar problems to benefit from the experience of the project.

There were basically three phases in the implementation of the project:

1. Development of a functional rural science curriculum.
2. Development of a rural-oriented primary education.
3. Development of comprehensive formal and non-formal educational programmes for moral development.

The project was run in Namutamba Teacher Training College and 15 associated primary schools. The evaluation compared results on cognitive and affective measures between the Namutamba T.T.C. and seven other T.T.C.'s in Uganda, and between the Namutamba Demonstration School Primary 7 and two other schools (P. 7) not in the project.

The evaluation report makes fascinating reading dealing with different groups' differing perceptions of the aim of the project, the difficulties of implementation and community involvement, the effect on teachers, and the lack of teachers' and tutors' guides. The comparisons of the Teacher Training College activities are also of interest, but here we shall report the main findings concerning the Primary 7 pupils.

- a). Interest in science was higher in the demonstration school.
- b). Concerning pupils' attitude to working in a rural area:
 - i). a higher percentage of Namutamba children than those in other schools are prepared to work in their home; but
 - ii). a higher percentage of Namutamba children would like to work in the big city (Kampala) than children in other schools.

It would seem that the project has not reduced the attraction of the big city for these children.

- c). The project has had positive effects on the attitude of children towards farming and (say the evaluators) if these attitudes persist the drift away from agriculture is likely to be substantially reduced.

This is a small pilot experiment and evaluation, and clearly will need to be replicated. (It will in fact soon be spread to another four areas.) However, it is an example of a curriculum (for formal teacher training and formal schooling) being developed with a practical bias ~~but not~~ at the

expense of the general academic education. It is closest to Form B described above. The Ugandan Curriculum Centre is now preparing non-formal educational curriculum for adult involvement.

b). The Pahang Tenggara Development Project

The development of an experimental curriculum for the Pahang Tenggara development project is currently being undertaken by the Malaysian Curriculum Development Centre. The following is an excerpt from a paper prepared by the Malaysian Curriculum Development Centre on their work on this project, prepared in June 1975.

The Pahang Tenggara (South East Pahang) area, would, in its initial stages be 'rural', its economy being agro-based, but within a short span of time it is envisaged that the area would become 'urbanised'.

The project would ensure that the programme in the school will have to be made relevant to the pupils' environment. This will mean taking into consideration the existing environment as well as the anticipated environment that the children will be in, and making appropriate provision for these factors in the curriculum. Hence, certain modifications in the curriculum will have to be made in order to achieve modernity goals, at the same time children should not be alienated from the national system of education.

The objectives of the project are:

- (a) To make education more useful and relevant to the local environment.
- (b) To make effective use of resources of the environment to stimulate learning opportunities and interest.
- (c) To include in the education of Pahang Tenggara not only items that are familiar locally but also those that are expected of them to know when living in different environment. Thus aspects of rural and urban should be taught.
- (d) To allow some flexibility in the school time table, social interaction between individuals and opportunities for individual development, including special programmes for slow learners.

- (e) To see that there is integration between Pre-school education and primary school education and between Upper Primary and Lower Secondary education.
- (f) To include participation of community in certain areas of the curriculum where ever possible.

Plans and activities for the achievement of the above objectives:

To achieve objectives (a), (b) and (c) the team proposes to modify the contents of the present syllabuses so that the general headlines are common or similar for all schools in Malaysia, but the detailed contents should also include illustrations or examples taken from the local environment in Pahang Tenggara, so that not only will the children of Pahang Tenggara learn items commonly set for all children in Malaysia, they will also learn of the resources present in their local environment, in the hope^{that} what is taught in their school can be of use to them locally.

Following with this is the using of environment for development of different aspects of the curriculum, for example a study of the environment will throw a problem to be solved by the children and in order to solve the problem they will need to develop skills. Thus the team hopes to provide these possibilities of developing children's skills through direct experiences with situations, professions and events present in the local environment. To achieve the objective (d) we propose a change in the present techniques of teaching and to improve class organisation. This change in style will be in two stages.

1. to teach by groups rather than as a whole class
2. to devise teaching techniques and flexible classroom organisation. Some teachers may progress to an integrated approach to learning. For this the project is working with the Integrated Curriculum Project at the Centre in producing materials for teachers and in its trials in the schools. The project team will also attend the Integrated Curriculum Projects' Seminar in July 1975.

Remedial programmes for the slow learners and underachieving children

The team sees the importance of some form of remedial programmes especially in Pahang Tenggara. The existing schools in Pahang Tenggara have pupils who are of different backgrounds. In Bukit Ibam Primary School some children aged 10 years old or more are still learning with children of 6 years old in Std. I and the same happens in other classes of the school. These over-aged children have been kept away from schooling as there are no schools in their home areas at the margins of Pahang Tenggara. With the development of Pahang the parents have moved closer to the scheme and have put them in the existing schools there. These children of different backgrounds and different ages who are in the same classroom certainly need special attention and programmes which will help them in their education. Although a new teaching technique which carries out groupwork will be introduced, the team feels that special programmes be included where more individual attention is given to each pupil who needs remedial work especially in the fields of reading, mathematics, and language. Therefore the team will work closely with the Multiple class teaching project. For objective (e) the team has recommended the integration of Pre-school education into Primary School and this is done through first the inclusion of Pre-school education in the Primary School building and under the supervision of the head of Primary School. Further integration of curriculum in this field will be worked out later.

In the educational planning for Pahang Tenggara it is essential to ensure that there is continuity between the primary and secondary stages of education, because the children who move into Pahang Tenggara have suffered one break in their education. Therefore the project team plans to investigate into the possibilities of a liaison between Primary and Secondary Schools. The liaison may be achieved by:

1. Continuity between primary and Secondary Syllabi;
2. Visits of children and staff between schools, for e.g. primary children in Standard Six should become familiar with the school building and meet their future teachers before they leave the primary schools;

3. Designing a new primary pupils' record card which when completed will be sent to the secondary school at the time of transfer;
4. Designing activities which require co-operation of staff of both schools.

Community involvement in the curriculum

The project team plans to make Kindergartens in Pahang Tenggara as nucleating centres possibly for not only the organising of community play-grounds but mainly for helping parents to carry out those simple practices which facilitate good child development, so that later there is no need for compensatory education. To carry out these activities the team has plans for Community workshops and for recording local cultural activities and occupation of the local people. This community work is the beginning of important involvement of local people at the early stage of school in Pahang Tenggara. Further involvement of the local people is still to be studied and it is hoped with the proposed community workshops a plan will be developed towards participation of parents with skills in the creative practical areas of the school curriculum, and thus maintaining and allowing local crafts to survive.

A broad outline of the project's activities in Primary School

Stage I -

Working towards building up a tentative curricular model for schools in Pahang Tenggara.

- (a) Research and investigation on the existing curriculum of Primary School.
- (b) Gathering curricular materials for the tentative model.

The tentative model curriculum for Pahang Tenggara will have these features:

- (1) A different approach. (groupwork & integrated)
- (2) Inclusion of local environment elements as illustrations, as much as possible. The team proposes to work on

subjects like Science, Mathematics, Local Studies and Health Science of Std. II. It hopes also to get the help of the teachers teaching these subjects.

- (3) Remedial programmes for the slow learners. The team proposes to assess the type of remedial required and to work with Bahagian-bahagian Sekolah (Remedial teachers) and Project Compensatory Education (materials) to carry out these programmes.
- (4) Community involvement. The team proposes to carry out the investigation towards this in conjunction with the establishment of Kindergartens in Primary Schools in Pahang Tenggara.
- (5) Continuity in education. The team proposes to see that in building ^{the} curricular model, the curricular materials are not duplicated and that there is continuity from pre-school to Primary, from Lower Primary to Upper Primary and from Upper Primary to Lower Secondary education.

Stage II -

Trial of the model of Pahang Tenggara Curriculum for Std. II in Pre-Pilot Schools in Pahang Tenggara

Stage III -

Evaluation and Modification on the Curricular model

Stage IV -

Trial of the modified model in Pilot Schools in Pahang Tenggara

Stage V -

Presentation to Central Curriculum Committee

The following activities have been carried out or are planned

- (a) To review the existing curriculum programme in schools both at primary and secondary levels, and to identify areas of

strengths and weaknesses, in particular, its application in existing land development schemes;

- (b) To study in existing land development schemes -
 - i) occupational aspirations of pupils;
 - ii) educational aspirations of parents for their children;
 - iii) perceptions of pupils and parents of the role of schools;
 - iv) attitudes and perceptions of teachers in such schools.
- (c) To anticipate and analyse the socio-economic cultural changes that will take place in Pahang Tenggara and to translate them into curricular specifications;
- (d) To design and try out tentative curricular models for schools in Pahang Tenggara;
- (e) To develop teachers' instructional and pupils' learning materials as well as teacher orientation programmes and teaching-learning situations for Pahang Tenggara schools;
- (f) To evaluate the products of the project and to develop strategies for wider application of the product in Pahang Tenggara and similar land development schemes in other parts of the country.

The project team has carried out work and investigation to achieve objectives (a) and (b), through

- (i) a study of the present syllabuses of Primary School (Stds. I - III)
- (ii) Visits of Primary Schools in Felda Areas
- (iii) Interviews with heads and teachers of Primary Schools visited
- (iv) The use of questionnaire to determine parents' aspiration of children's education in Felda areas and the type of parents' participation in school work.
- (v) A set of questions to determine the nature of pre-school curriculum and its integration in the primary school.

(vi) Tests on Reading, Mathematics and Bahasa Malaysia.

As far as objective (c) the team proposes that the work is put a side at a later date when more changes and movement of people are anticipated in Pahang Tenggara. For objectives (d), (e) and (f) the team proposes to carry them out when the findings of the work for objectives (a), (b) are analysed, organised and confirmed. Thus for the year 1975 the team has to complete the findings from work set to cover objectives (a) and (b).

Findings from activities already carried out

From the study of syllabuses, visits to Primary Schools in Felda and Pahang Tenggara, interviews with heads of the schools visited and parents of Felda areas and also from the feedback of instruments used in these areas when determining the aspiration of parents, pupils towards education, the team has reached this conclusion.

(a) Syllabuses: The contents of most subjects in Primary schools are too full. Very often many items in the syllabuses are duplicated. Resources from the local environment which can be effective illustrations to some items in the syllabuses are left out. The common content syllabuses as they are now appear to benefit more urban children as the contents tend to consist^{of} items more common and familiar in urban surroundings, where as elements in the rural are more often been left out.

(b) Teaching approach: The method of teaching which is commonly carried out in schools to-day shows weaknesses, such as:

(i) There is not much provision allowed for individual development because of rigid teacher centred curriculum and rigid classroom organisation

(ii) There is little social interaction between individuals. Social interaction more often occurs only during intervals. Thus opportunities for

expressing one's ideas or conversing freely are lacking.

(c) Application: The team feels that there is still a great deal of scope for the application of whatever is learnt in school in actual life. A close relationship between subject contents and environment is still lacking in our education.

(d) Integration: Very little has been done towards further integration between Pre-school education and Primary School education or between Upper Primary School education and Lower Secondary education.

(e) Community involvement: The team finds that in Felda areas community participation in extra rural activities is most encouraging. The participation is mostly through parent - teachers' associations and it consists only of assistance for sports, Speech Day etc. The community participation as such could be geared to a more beneficial work if its involvement is organised in the areas of curriculum.

This is clearly a curriculum being prepared for one area of a country but attempting to keep a 'national curriculum'. We would categorise it as Form C of rural curriculum.

c). An African project

In a country in central Africa, which is 90 per cent rural, a new curriculum reform for primary schools is beginning. Because of such political goals as national unity and the creation of the African personality, it has been decided that the general objectives will be the same over the whole country. But since the country embraces environments running along a continuum from very rural to urban, an attempt will be made to create an 'environment oriented' education to fit the different environments in the country.

A fairly large (in terms of scope, not of people) research project has been initiated to collect information on three main sets of factors.

1. Information on schools: for example, what is the physical state of the school buildings, the qualifications of teachers, the quality of practical teaching particularly in rural science and school farming.
2. Information on the present employment pattern of school leavers. Not only is this information on the types of employment entered by school leavers, but also on the broad types of knowledge and skills required in those jobs.
3. Information on the variation among environments. This information includes for a sample of school communities:
 - i). the level of agriculture
 - ii). the infrastructure, e.g. roads, electricity, water
 - iii). the land-tenure system
 - iv). the traditional culture, e.g. traditions and customs associated with different points in the life cycle of an individual, formal traditional and modern forms of groups and their customs
 - v). crafts and technology practised at present
 - vi). the oral tradition, e.g. stories, proverbs and riddles classified by language groups
 - vii). the occupation aspirations and expectations of parents and children.

These data will be analysed in order to identify and characterise relatively homogeneous environmental zones - probably some five to seven of which will be for the urban towns. After this, it is hoped to identify curriculum content elements (such as different types of crop-growing or crafts) which differ from zone to zone. Thus, the specific objectives will differ from zone to zone, but will be consistent with the overall general objectives of education set down for the whole country. The skills will be of a general nature even though the immediate application may well be specific.

The data will also be used to examine the practicability and applicability of some of the aims of the proposed educational reform, e.g. how can the school and community be integrated, what might the scope of school production be, etc.

A policy report will be made on the basis of this research to the government, which may accept, modify or reject it. If it is accepted totally

or in a modified form, the aim will be to produce materials (mostly teachers' handbooks) some of which will be the same for all zones and some of which will be produced in parallel forms - one form for each zone, such that each form is suitable to the environment of the particular zone for which it is produced.

Whether the curriculum centre will suggest which zones should use which form or whether teachers will be trained to select the form most suitable for them and how the actual printing production and compilation of different forms into sets will take place is not yet determined, since this is for some two to three years' time.

However, the general approach is of interest. Again, this will be a Form B type of ruralised curriculum, but in a flexible form for the whole country.

Conclusions

In most developing countries the use of the curriculum to achieve national unity is very important and, therefore, the general curricular objectives must be the same for all children in the country. The urban/rural dichotomy is a false issue since, in reality, there is a rural-urban continuum. Since environments differ, the curriculum should mould with the environments in terms of the specific curriculum objectives relating to the environment. Two trends are appearing: a) to adapt the curriculum to a specific area, and b) to create a series of parallel forms of the curriculum (with the same general objectives) such that schools in different environments may have different combinations of modules appropriate to their environment.

It is dangerous in regular schooling to teach specific skills, given the rapid changes encountered in the specific skills required by the market. Rather the school should teach general skills which will enable the pupils in their later lives to learn different types of specific skills. The specific skills should be learned in the community, on the job, or through short courses (usually under the umbrella of non-formal education).

The practical problems of such curriculum development and materials production are great, but serious efforts are being made in this direction. The use of evaluation and research is beginning to play a much larger role in this work than hitherto.

It is an extremely dubious assumption to think that the ruralising of the curriculum alone will keep children in rural areas. What seems more promising is the concept of 'integrated' rural development where basically the economic changes occur first very closely followed by the educational changes of the B or C form.

SECTION 2

The Primary School Achievement and the Community Background: Implications for Curriculum Reform.

Introduction

The present interest in basic education derives from a number of large assumptions about the cost, inequity and irrelevance of much that goes on in primary schools in the Third World. A good deal of this critique is convincing (and could, arguably, apply equally strongly to the primary schooling of the industrialised world); however, some of the current analysis is at a level of generalisation rather remote from the practical achievements and difficulties of rural primary schools, and does not therefore suggest to the various national authorities concerned with curriculum development any very concrete set of issues to be tackled.

This paper accordingly attempts to narrow the field by focusing rather more sharply on the present achievement of primary schooling (with data that is predominantly African). A) It examines what is actually achieved in the traditional six to eight years of primary education, and what lessons can be derived from this for centrally-directed curriculum development. B) It sets this in-school learning within the wider context of the skills and work experience acquired at home during the primary cycle, and C) subsequently within the kind of opportunities immediately available to primary school leavers. D) Given the present mix of school and community inputs to primary education, it considers the potential of basic education.

A. The Achievement of Traditional Primary Schools.

i. The Fabric

In perhaps most village communities, the largest collaborative enterprise is the primary school. Physically, it constitutes the biggest connected sequence of buildings in the area, even though the style of construction may alter from mud-and-wattle, to wooden off-cuts, to permanent stone or concrete block structures, depending on the prosperity of the village. Although in a number of countries, primary school building is the responsibility of local authorities or of central government, in many others the entire capital and running costs of primary school building are laid upon the local community,

with the result that the primary school is usually the major continuing focus of self-help for local families. Other projects, such as dams, dips, water schemes and clinics, create once for all demands for fundraising, but the local school is constantly dependent on village finance. Indeed, for two reasons this local investment in school is increasing. Firstly, very large numbers of rural communities are quite suddenly no longer content with the rather basic facilities that primary schools offered in the 1940s to the early 1960s - the thatched roofs, mud floors, rudimentary desks and window-openings without glass and frame. Members of school committees are aware of the style of primary school that can be found in the capital city and the municipalities, and, however inappropriate it may appear to advocates of lowcost schooling, they are determined, through yearly levies upon the parents, to convert the old temporary and semi-permanent buildings into modern structures with concrete floors, steel window frames and permanent roofs. This upgrading and local pride in modern schools is not a movement that could easily be checked. Indeed, despite the more than 100% rise in the cost of certain building materials in the last two years, there is little evidence that this transformation of school property is slowing down. In the more progressive rural areas of Kenya, for instance, it is common for the parents to raise between 20,000 K Sh. and 30,000 K.Sh. annually to construct two permanent classrooms. (= £1,250 to £1,750 Stg.) Secondly, the modernisation of school premises is increasing in pace because of the urgent demands to expand access to primary schools. In a number of countries at this time there is what could be called a second phase in the attempt to universalise primary school attendance. The first great expansion took place just prior to and after Independence, and now, some ten years later, at least five or six African countries are launching a second phase.

The implications of these trends for strategies of basic education are worth bearing in mind. A movement is afoot which is bent on upgrading the fabric of primary schools. Unlike secondary education where in the post-Independence period local communities and governments modelled their new schools upon the handful of high cost colonial institutions, the primary school sector may now be characterised as determined not to replicate in the Independence era the low costs and simple materials of the colonial 'bush' schools. It may be safely assumed that any suggestion (particularly from outsiders) that this expensive and continuing investment in bricks and mortar has somehow been misplaced will not be readily received. One aspect of the basic education philosophy is that buildings should be multi-purpose, so that they can be as easily

used for adult literacy as for children's education or for voluntary programmes. Such buildings were common in the earliest decades of African schooling, but increasingly as structures become permanent and purpose-built, the furniture and seating in, say, infant classes become specialised, and like their counterparts in the West, their use becomes restricted accordingly.

ii. Democratisation and access.

The issue of democratisation and equity is another area of central importance to the concept of basic education. Before, however, cataloguing the shortcomings, it is worth just examining the achievements of the primary school in this sphere. A good case can be made out that the primary school is very much the common or community school; this phrase may be given an extra layer of meaning in Tanzania, but in most other countries also the primary level is already a community school in much more than name. For example, unlike Europe where schooling is age-specific, it is still very uncommon in Africa for access to schooling to be determined by age. Even though, therefore, in general the age of primary school students is falling, the span of age within any class can still be five to eight years. This widespread lack of discrimination on grounds of age or size is itself a sympathetic recognition of the poverty and irregular cash income in the rural areas. The children of poor or fatherless families will have to enter late if they are to enter school at all, and allowance is taken of their having periodically to drop out and earn money full-time for a year or so. There may be an official line discouraging overage students from entering or completing school, but in practice headmasters who accept twenty-year-olds as 'fourteen' are maintaining access to the common primary experience. This is undoubtedly a difficulty for statisticians, but it does allow primary schools to play an important part unofficially in adult literacy.

The primary level is also common in the sense that only the barest minimum of uniform is required. Unlike secondary schools, there is hardly a shoe or a sock to be seen in any rural primary school class, and no distinction between the basic uniform of Standard One and that of the top class in the school. It certainly cannot be suggested that the rural primary school, through dress of privileges, somehow separates its pupils from the 'real' life of the village.

Indeed, the issue of inequity is much more likely to arise from the determination to construct classrooms on a par with the provision in the main towns. For many countries, this is an aspect of the rather marked difference between urban and rural primary schools. The former are often built free of cost to

the parents in the towns, and are frequently blessed with facilities that even the most determined selfhelp school committee cannot match in the countryside. Even in the poorer areas of Nairobi, for instance, municipal schools will have tamped water, electric light, sizeable classrooms and staffroom, headmaster's office, high quality office equipment, class libraries and desks. All these are provided free to the parents and children, as well as watchmen and grounds-men, and a school clerk. By contrast in the rural areas, every one of these items is the responsibility of the parents. The consequence of trying to provide even a few of these has the effect of making the annual building fund or levy in the rural areas too high for some parents to afford.

iii Knowledge, skills and values.

Granted that there is nothing special about the status of primary school students - indeed their most important characteristic is this very ordinariness - it is still necessary to examine what is actually learnt in these traditional primary schools. The successes and failures in this sphere may well be suggestive for any curricular package associated with basic education for rural areas. It is in fact notoriously difficult to gauge what fundamental competencies are successfully transmitted in schools, since the schools' own measuring rods (examinations) are not necessarily designed to assess these broad goals. More often than not, the schools' own examinations are a confirmation of a particular teaching methodology. It may therefore be useful first to say a word about the teaching style common to so many primary schools.

a) Methodology:

One of the major apparent innovations in primary schools is that the lower standards have taken on some of the conventions widespread in the West. In classes one to three, it is really now quite common for children to be taught in groups rather than in the classroom format, and in the official syllabus and teaching literature the activity methods and child-centred methods associated with small group work will be detailed. Meanwhile in the curriculum development centres at the national level, teachers' notes and pupil texts have been generated encouraging the creative use of local materials. As a result of this there is a noticeable impact in the classrooms, but lacking the mass of expendable new and secondhand materials that the Western infant teacher can take for granted, there is a tendency for the activity method to be restricted in its scope. Thus, in one country, every Standard Two class will have a mud game park as a 'centre of interest'; it may well remain in the class throughout

the year, and what was therefore only a suggestion about a new kind of activity becomes in fact an essential but sometimes solitary demonstration that such new methods are at work.

These beginnings of child-centred activities have been mentioned because like the parallel movement in replacing temporary with permanent buildings, they reflect -even in a small way- a determination to have the same kind of initial learning experience as the West, or as the more favoured primary schools of the African capitals. In fact, at the very point when basic educationists are becoming interested in the possibility of a minimum four year cycle of education, these first few years are in Africa being increasingly regarded as a mere preliminary to a full primary course. By contrast, in the colonial period, in many parts of Africa, the four-year cycle was a reality, with the great majority of those who went to school at all receiving the four years of elementary education, and then failing to proceed to the upper primary. With the coming of Independence, four-year schooling was as rapidly as possible converted into full primary, and in some countries, such as Tanzania, the last of the old four-year colonial schools disappeared through upgrading just a year or two ago. In 1975, Zambia is still in the process of providing to some of the poorer rural areas education beyond Grade Four. For these reasons, there is likely to be opposition initially to any curricular package in the 1970s which suggests that four years of education are enough for the poorer parts of Africa.

Whatever the changes in methodology in the lower primary school, much less seems to have changed in the upper years of primary schooling. Pupils move back into class teaching rather than group teaching, and the delivery system suddenly becomes much more formal and subject based. Suddenly, too, the emphasis is on acquiring the corpus of knowledge, then memorising and testing it, class after class up till the next critical selection examination at the end of primary school. Typically, from Standard Four, the teacher will read out the daily material from the teacher's book, there will be some questions, and the essential notes will be put on the blackboard and meticulously copied down. Although there has often been a prodigious amount of text book production undertaken at the national curriculum development centres, in some ways pupil dependency on the teacher has increased since Independence. Given the enormous increases in enrolment, and the uncertainties of receiving or replacing pupils' texts in the rural areas, it has paradoxically become more common (outside towns) for pupils to be without individual texts than it was ten years ago in some areas. Apart, therefore, from sharing

a basic English or Maths text, it is quite possible for a pupil to have to rely on teachers' notes exclusively from Standard Four to Standard Six or Seven. An example from a Standard Four class jotter may help to illustrate the complexities of this process, as well as the tendency for knowledge to be transferred to pupils in a state that is already predigested, categorised and ready for memorisation:-

Flowering Plants

Plants can be divided into two main groups. Green Plants and Non-green plants.

1. Green plants have in them a green substance called chlorophyll which helps them to make food.
2. Non-green plants do not have chlorophyll so they cannot make their own food.
3. Green plants can be further divided into two groups 1) flowering plants 2) non-flowering plants.

Flowering Plants:-

Flowering plants can be further divided into two groups.

- a) monocotyledons b) Dicotyledons

Monocotyledons:

1. Plants grow from seeds which have one seed leaf
2. Their roots are many roots growing from one place and spreading out to all directions. e.g. maize, sugar cane and wheat.

Dicotyledons:

1. Dicotyledons grow from seeds that have two seed leaves.
2. They have a tap root, one main root and other smaller roots coming out from it.

This methodology emphasises the teacher's almost complete monopoly of knowledge, and in a situation where the child is unlikely to possess even a single fiction or nonfiction book of his own, there is not much scope for the home to compensate for some of the barrenness of the school. If we are to consider what attitudinal lessons are derived from this methodology, it is difficult to suggest that it makes the children self-reliant in the acquisition of further or more relevant knowledge.

b) Language and Literacy skills.

In the majority of countries that are not able on linguistic and political grounds to decide for a single national local language as the medium of instruction, the problem of methodology, outlined above, is made even more complicated by the use of foreign languages. In assessing therefore the language competency of a Standard Four or Seven pupil, it is very difficult to generalise about the primary school achievement. To give an example:

The language of home and church in the rural areas will be a mother tongue. Particularly since Independence, there has been a tendency for English or French to be introduced from Standard One, backed up in some countries by educational TV and school broadcasts. In the teacher training colleges, there has often

been encouragement to use the foreign language through the direct method from the beginning, and an enormous publishing programme confirms the official status of the foreign language in the lower primary. In practice, however, many teachers in rural areas find it impossible to use a foreign language satisfactorily as the vehicle of instruction, and they try instead to achieve competency in the children's mother tongue. They are just about to achieve this towards the end of Standard Three (indeed some children can write quite an adequate letter at this stage), when they move over almost fulltime to the foreign language. From now on all the exercise books will be written in the foreign language, with the possible exception of a jotter for the national lingua franca e.g. Swahili. From now on also, as in the colonial period, many schools attempt to eradicate any use of the mother tongue in the class or the compound. In one country, for instance, a piece of wood is given out by teachers in some schools at the beginning of the day; the child given it has to try to get rid of it to any other child he hears speaking the mother tongue, and so the baton changes hands through the day. At the end of the last period, the teacher calls up to the front of the class and canes all those who made the mistake of speaking their own language some time that day.

It is, furthermore, not possible to assess competence in this foreign language by a cursory examination of the pupils' notebooks. As we have explained, these represent a more or less accurate copy of what the teacher has put on the board. So, short of asking the pupil to explain in his own language, (or in English or French) it is difficult to gauge how much of what is copied is understood. Here is an example from a history jotter of a Standard Four child in 1975, who had consistently been in the top quartile of her class:

Rulers and Workers in Egypt

In ancient Egypt there were two classes of people

1. The rulers who were educated.
2. The workers who did all the building and farming.
3. The King or pharaoh lived in a big house surrounded by his nobles and court officers.
4. The priests were honourable people and had many privileges and they were rich and also they had much influence over the king and his people.
5. In this land of two rivers there arose a king called Hamrobi.

In this short passage, the child (of eleven years) had no understanding at all of the following words: 'ancient, classes, pharaoh, surrounded, nobles, court, officers, priests, honourable, privileges, influence, arose.' Naturally the situation will improve in the next three years of primary education, but lacking

supplementary readers or reinforcement from the home, the teacher's spoken English and notes remain the sole source of the foreign language. Therefore if the child does not succeed in entry to secondary education, his or her competence in English can vanish in a fraction of the time it took to be acquired.

There are no easy solutions for countries with a complex linguistic situation. Indeed, the language dilemma is put into even sharper focus if it is looked at from the perspective of basic education. Most of the fundamental learning requirements of rural areas can (and in many cases are) got across in the local mother tongue; this is particularly true of young and older adults meeting in women's groups, co-operative activities, extension work, selfhelp enterprises involving the local MP or local Chief. It is only when it comes to the civic dimension of basic education that the problem arises; the rural areas clearly do need to be able to compete effectively with the towns for access to the public and private sectors of the economy. And as long as city children and city schools have a considerable advantage in their use of the national lingua franca and the major foreign language, rural parents will find it hard to accept that the present long apprenticeship in English or French can be short-circuited by some briefer curricular package. This is not to say that the present methodology of learning must be retained, but it does suggest that for learning in a three-language situation, there are no very dramatic short cuts just waiting to be discovered.

c) Skills in School:

To many observers, the worst failing of the primary school is the alleged skilllessness of the thousands who leave it every year. We have suggested that achieving language competency alone consumes a good deal of school time; and then there are the other subjects that need to be carried up to the primary leaving examination. Increasingly towards the end of the primary cycle, the examinable subjects dominate the timetable, and it is not therefore surprising that basic skill acquisition is not given any attention apart from a few countries, such as Tanzania where there is a political commitment to productive labour, and Zambia, where the claims of school production have only very recently achieved prominence. This lack of attention is not simply a question of the backwash effect from the selection examination, for there is sufficient evidence from the colonial period alone to show that some basic agriculture, woodwork or masonry could with small numbers be quite effectively taught and ex-

amined in the upper primary schools. Contemporary innovation too in the examination process in East Africa suggests that the following rather barren example of a new maths multiple choice question from a 1974 leaving exam can quite readily be improved:

$$A + B = A$$

What property does this show?

1. The commutative property of addition
2. Identity property of multiplication
3. Distributive property
4. Identity property of addition

It is not therefore that there is something unalterable in the present style of examination, but rather that in a number of countries a policy decision has been taken against making the schools an instrument of skill acquisition. Instead, schools have one or two handcraft/domestic science periods a week, in which the boys will often do a little modelling in wood and the girls a little sewing. It is of course possible, as the example of Tanzania shows, for primary schools to mount quite elaborate projects in agriculture, but it is much more difficult for the school as an institution to insure that there is significant productivity, or that basic learning about agriculture or craft practice takes place at the level of the individual.

The other critical factors that inhibit the adoption of craft and agricultural practice in the primary schools are cost and the lack of qualified personnel. In countries where equipment expenditure has to be met by the local parents, it is difficult to imagine satisfactory craft premises and materials being very readily provided. For reasons that will be mentioned later, many parents do not conceive such work and training to be an essential part of primary education.

However, the main problem in discussions of this sort is that the case for skill training or basic work preparation always seems to be argued on the school evidence alone. In other words, as the schools, to judge from their timetables, do not seem to concern themselves with providing basic life skills, it is assumed that therefore the children or young people are actually without any work experience. Nothing could be further from the truth, as the next section will try to show.

B. Skills and Work Experience Out-of-School during the Primary Cycle

Before there can be any realistic assessment of the role that the primary schools can perhaps play in basic skill formation, it is necessary to construct some sort of inventory of out-of-school work and learning during the primary cycle. This cannot be generalised across a region or indeed across a country, since there is significant ethnic variation in what is expected of young people. Nevertheless, for the purposes of this paper, it may at least be suggestive if we sketch out the variety of activity undertaken by primary school children in parts of the Central and Rift Valley Provinces of Kenya. (The information was collected during July 1975 from some 300 children in these areas, and in many cases the data from the children was checked by touring their homesteads and farms, and through discussions with parents and older brothers.)¹

The range of activities that are common in these agricultural areas for children from Standard Four to Seven would include some of the following:

1. Cultivating a shamba, or piece of field, often specifically allocated to the child.
2. Keeping hens and /or rabbits - not as pets but for selling and eating.
3. Sewing, crocheting and knitting (in the case of girls) of younger children's clothes, tablecloths, school-bags, and sisal or nylon baskets for sale.
4. Collecting firewood -which, given the denudation of woodcover, can involve very long distances and very heavy loads.
5. Coffee-picking, often throughout school holidays in December. Tea-picking.
6. Digging, planting and weeding in family field or fields, which as there are two growing seasons each year is not the sort of work from which there is any respite.
7. Milking and finding fodder for cows. In these areas of Kenya, graded cattle are now kept very widely in tiny paddocks. As a consequence Napier grass has continually to be planted, and fodder and water fetched often from far away. Cows are milked morning and evening by school children and milk taken to the dairy, which again can be a mile or two away.
8. Fetching water. Particularly for families which do not have corrugated iron roofs and water catchment tanks (the majority), water has to be fetched daily. The possession of grade cattle increases the burden of water-carrying.

9. Looking after young, preschool children, and assisting with cooking.(girls)
10. Working in father's cottage industry, or serving in the shop.
11. Building own house, especially in the case of the older Standard Seven boys.
12. Digging measures of ground for other farmers, for money.

Of course, not all of these activities are carried on every day, but some are. And others such as cultivation when they are done, take up the whole of Saturday from morning till evening. Unlike school agriculture which when it was done at all was governed by the standard length of school periods, and which often involved a whole class of forty children, cultivation at home is not time-bound, and is a very serious business involving purchase of seed, fertiliser, judicious watering, protection, harvesting and personal marketing. Children with their own plots and seedbeds very rapidly come to terms with basic calculation of output and likely profit, which seems a far cry from the 'commutative property of addition' we mentioned earlier.

It may be useful to give a few individual examples of primary school skill, to see how these various components come together in one child. Perhaps, however, a word should be said about age. It has been stated for quite some time now that one of the crucial problems of the primary school leaver is that he or she finishes Standard Seven so young that there has to be a lacuna of two or three years whilst the child grows old enough to work. Indeed, the rather well known village polytechnic movement in Kenya was predicated on just such an assumption - that a skill-providing institution had to be created for the critical years of maturation. It may in fact be the case in some of the best city primary schools that children are completing their first cycle at the age of 11 or 12 years, but if evidence from one of the most advanced rural areas in Kenya is anything to go by, the same is far from happening in the countryside. In, for instance, a very developed school in this area, the declared age of the majority of Standard Seven pupils was either 13, 14 or 15, with a scattering of 16 and 17 year olds, and no one younger than 13. However, it is well known in many poorer countries that children underdeclare their real age for fear of being discriminated against in entry to secondary education. And in this particular school, four of the 'children' whose farms were subsequently visited agreed that their real ages were 20, 18, 17 and 16 respectively.

What is worth noticing in one or two of the examples of out-of-school work that follow is the fact that many of the activities of the Standard Seven pupil were started several years earlier, and also that they have a specific cash value:

a) Standard Seven Girl, July 1975

1. I do weeding after school and raising hens. I started hens in 1970.
2. I know how to make a skirt. I did one last week.
3. I know how to cook cakes. I began this in Standard Four.
4. I know about knitting cardigans. My mother taught me when I was in Standard Two.
5. I know how to keep goats. I have got three. I started keeping them in 1969.
6. My father first bought me one. Last month I sold two of my goats at a price of K.Sh. 90/-.
6. I know how to milk cows and also how to pick coffee.

(declared age: 14 years)

b) Standard Seven Boy, July 1975

1. From January this year to March I did not do as well as I was thinking because I planted only maize and I sold it with a good price. After I sold it, I bought two rabbits, and I kept them well with very good food.
2. From March to June, my rabbits bore twelve young ones, and I sold them at three shillings each. I got a very good amount of money, and I pay my school fees at that time. So my father was very pleased at my work.
3. From June to July 1975, I planted some vegetables, after digging and doing irrigation. I planted tomatoes. The seed cost 23/-, and the cabbage seed cost 15/-. I spray the seed beds each evening with insect killer. In August I hope to sell the little cabbages at 40 seedlings for 1/-, and the tomatoes will get a good price.
4. In December last year I did coffeepicking. I started doing it in Standard Five.

(declared age: 15 years)

The parents' assumption that children from a very early age will participate in family production partly accounts for the ordinariness of the primary school child in the rural areas. With Standard One to Three children who only attend school till lunchtime, it is difficult to know by the afternoon who is a school-goer and who is not. Most chance out of their school uniform and begin to work as they are required. With the older children, too, there is a daily transition from school to work, and often a good deal of work at the weekends. It is precisely because children at the primary level are only too accustomed to working that the secondary boarding school is so popular. (It should be remembered that in many parts of East and Central Africa, boarding education is still more common than day schools at the secondary level.) The secondary boarding school therefore offers the chance for the first time to become a full time student.

Once an inventory of out-of-school learning and work experience has been constructed, it is possible to begin examining how the school can perhaps more effectively interact with the pupil's practical understanding of agriculture and home economics. It is doubtful, however, if there is any point in the primary school attempting to replicate in its own farm plot some of the local experience of farming. Schools, as institutions, turn out not to be very good at recreating industrial or agricultural conditions, and seldom have the talent to maintain the school plot at a technically superior level to that achieved by local farmers.

This is not to say that schools do not sometimes have very impressive small farms of coffee, tea or maize. These do bring income and some food into the school, but this can be done quite profitably (and often is) without the involvement of the majority of the pupils.

The upshot of this part of the argument is that primary school students - with the exception of the more developed urban areas, are not necessarily short of work experience. Whether schools should, however, with the help of an inventory of local village skills, try to offer more specialised work experience than the community itself affords is also open to question. So long as primary school attendance is seen by the students as giving some opportunity of competing for secondary entrance, it will be difficult to combine the teaching of a life-skill (such as village joinery) with preparation for the secondary selection exam. Many primary school students are understandably reluctant to divert their attention from exam work until they have failed one or more times to achieve entry to the next stage of the system; and by the time they have accepted their failure, they are naturally beyond the reach of the primary system.

C. Basic Education in the Context of Post-Primary Work Life.

If basic education must take cognisance of the skills pupils actually acquire during the primary cycle, it must also consider very carefully the range of opportunities open to primary school leavers immediately afterwards. As far as access to formal sector training programmes is concerned, the days of the Standard Seven leaver are now over. With the exception of some national youth service programmes, there are now very few official courses which only require Standard Seven as their minimum educational requirement. For example, in Zambia, of the 74 Training Programmes and courses listed by the Department of Technical Education and Vocational Training, only one is open to the Grade Seven leaver. And the situation is not very different elsewhere.

This does not mean, however, that the formal sector of the economy is closed to the primary leaver. As has been shown elsewhere,² many companies actually prefer to take on workers with primary education only, and let them gradually acquire training on the job, rather than relying exclusively on the more educated students who have acquired their skills in training institutions. In practice, however, the process of getting into such firms in the industrial areas of the major cities is time-consuming and depends a good deal on contacts in the urban centres. In this sphere, there is really very little that the primary school can do.

When it comes to the question of unofficial training opportunities open to primary leaver, there is perhaps more scope for the school to participate and give some realistic career advice. Once the primary school leaver had been excluded from most types of public formal sector training, it became obvious in a number of countries that there was an enormous field open for the private training institution or entrepreneur. There has consequently in several places been a dramatic increase in private institutions of every sort - typing, sewing, accountancy, academic, technical - catering to a large number of Standard Seven students. Because of the wide variation in standard and in fees chargeable, this private venture sector does offer a policy problem to Ministries of Education. Nevertheless, if it is once granted that primary school graduates are often going to leave their villages in search of training or work anyway, a very useful career function could be performed by producing a checklist of training and further education openings for primary leavers. The production of such a checklist would not only be of value to the pupils, but arguably could lead to greater Ministry involvement with this sprawling private world of 'colleges', academies and technical institutes which in some cases take advantage of the naivety of the primary leaver. See, for example, some persuasive arguments directed at Standard Seven students from a 1975 'college' brochure:

Mechanic is a course of visible practical instructions and one only requires to have an average of language understanding and sharp eyes to mark what is taught in practice. It facilitates one to live independently without so much depending on hunting for employment. Although this course suits candidates completing both primary and secondary schools, it is indeed a special measure for all Std 7 school leavers who apart from being absorbed in secondary schools, owing to the rising standards of education in the continent of Africa many of such pupils hardly get any other opportunities. If you comply with this advice, in some years to come you may even find yourself more competent than some of your comrades who might aimlessly have gone further. ³

The third aspect of post-primary work skills concerns informal training and work in the community, the village, or the nearby town. Here the typical Standard Seven leaver is by no means as naive. He or she knows very well the various craftsmen in the village and nearest market centres. The boys are likely, for instance, to know of the few local mechanics who have a tradition of taking on learners. And the same will true of the local carpenters, tailors, builders, and metalworkers in the vicinity. Some of the primary school graduates will also know of skilled men from the village now working in more distant towns or in the capital. This network of village mates is all part of the primary leaver's Map of Employment and training possibilities. This is not to say that he or she can get taken on by any of these skilled workers. It is to suggest that the employment potential of the local community is rather well known by those finishing the primary cycle; it is after all only an extension of that work experience in the rural community which we have claimed is a common factor to many primary school pupils. Young people also know that working alongside such village craftsmen is the obvious route towards personal self-employment.

D. Summary Implications for Primary school Innovation in Basic Education

Examples of innovative programmes in basic education for rural schools have already been referred to in **Section I of the present paper**. Here the concern has been to underline the importance of factors that are likely to impinge on the process of curriculum reform from outside the school. It has been suggested that certain kinds of preliminary research on children's work experience and on community skill resources needs to be carried out as part of any major exercise in building a more relevant curriculum for rural schools. Admittedly, as we showed in the first section of this paper, there is a good deal in the primary school curriculum that seems very remote from the community in which the school stands. The approach to this apparently widespread curricular irrelevance is not simple. In some recent writing on the primary cycle it is assumed that schools can become more relevant by becoming more community-oriented, or, in other words, that much of the tedious memorisation of academic subject matter can be replaced by various kinds of village and community activity. The difficulty in this sort of approach is not only that it underestimates the amount of work pupils already do in the village out of school hours, but also it runs the risk of doing in the schools badly or artificially what is now done naturally and in real working conditions in the village.

The more complex reform task is to take into account the village contribution to skill formation and the village vision of why it invests in primary schools, and then to examine from a national perspective whether the essential disciplines taught in any primary school should be more localised, and whether they should somehow be made to interact more with this community infrastructure of skill and work experience.

+++++

References:

1. This research in Kenya during 1975 is part of a wider project being carried out by the writer on informal skill acquisition, with the help of the Ministry of Overseas Development.
2. See Kenneth King, The African Artisan. A Study of Training, Technology and the Informal Sector in Kenya (Centre of African Studies, Edinburgh University March 1975, pp.200), ch.iii.
3. Advertising brochure of a private technical college in East Africa, 1975.