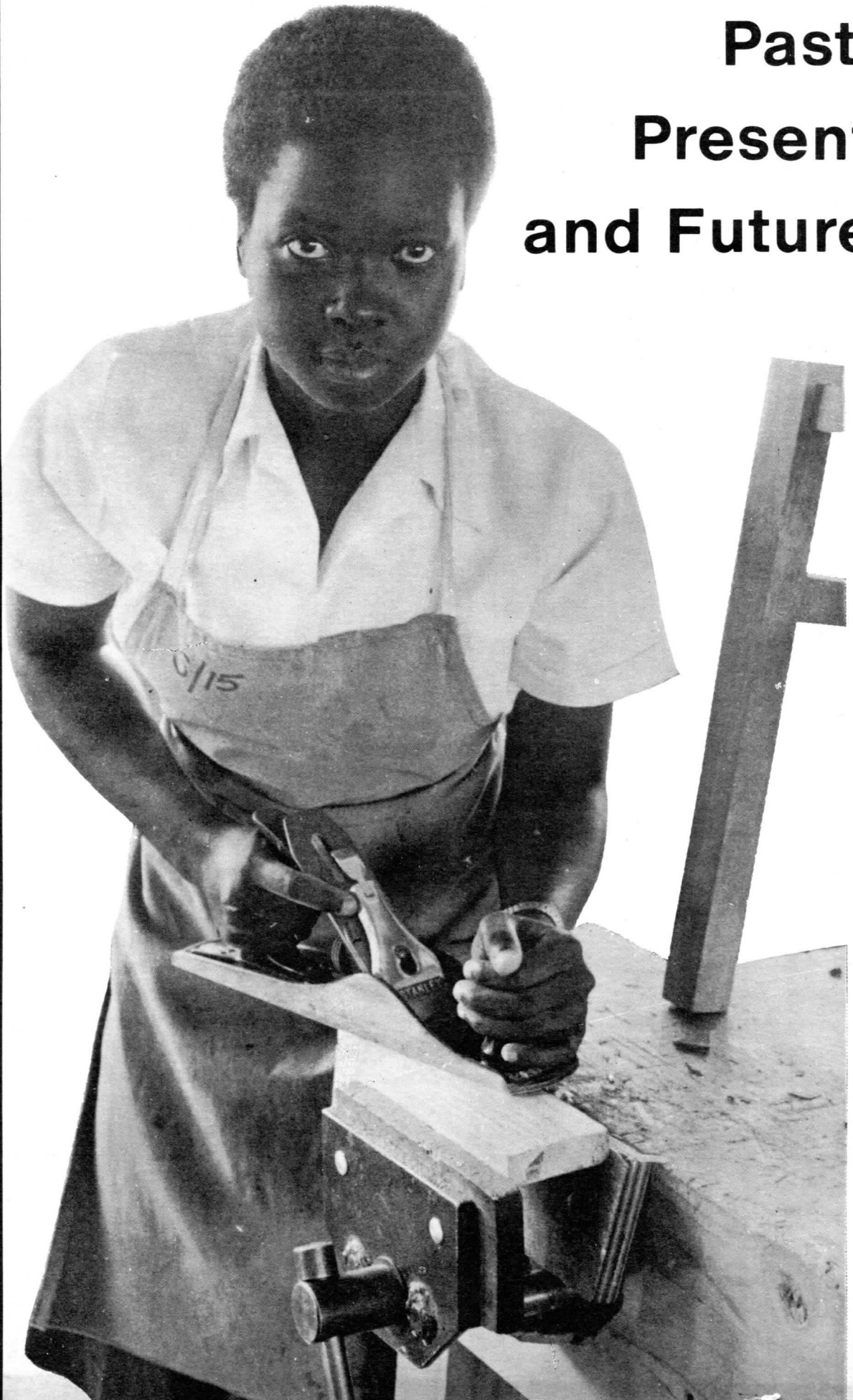
EDUCATION IN ZIMBABWE

Past, Present and Future



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EDUCATION IN ZIMBABWE

Past, Present and Future

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We wish to build a new Zimbabwe, but this quest will be frustrated unless we have an educational system that is firmly orientated towards the transformation we seek. To change Zimbabwe we must first change the educational system.

Robert Mugabe

27 August 1981

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INTRODUCTION

This collection of papers offers descriptions of, and hopes for, programmes of education in Zimbabwe and other nations committed to socialist development. It has been prepared to serve especially those teachers and adult educators in Zimbabwe and Southern Africa challenged to change both themselves and the educational structure in which they work. The changes required are rooted in colonial history. Where past educational structures favoured a few, education in the New Zimbabwe must be designed to meet the needs of the rural masses; where educational structures were developed on external support, they must now be self-reliant through productive work; where elitist attitudes led people to despise labour and suspect co-operation, education for the New Zimbabwe must be designed to foster collaboration and a zeal for productive labour

This international seminar held in Harare in August-September 1981 offered examples from Zimbabwe and other nations of ways of implementing these three significant changes:

i class analysis towards a mass line

ii economic analysis towards education with production

iii attitudinal analysis towards a co-operative labour based spirit

Readers of these papers will make their own synthesis.

SECTION I - POLICY PLANNING AND EDUCATION

INTERNATIONAL COLLABORATION FOR BUILDING A NEW SYSTEM BASED ON JUSTICE AND EQUALITY.

Amadou-Mantar M'bow
Director General UNESCO

As a full fledged member of UNESCO, following the decision of the 21st session of the General Conference held in Belgrade in September/October 1980, Zimbabwe has a major role to play in upholding the principles of the organisation and in promoting international peace and solidarity. Based on justice, equality and mutual understanding UNESCO's activities cover five areas - education, the natural sciences and their applications, culture and communication. Although the organisation has its headquarters in Paris, quite a number of its personnel work in the field - not only in regional offices and centres established all over the world, but also in national projects in many developing countries. In this connection I am glad to note that UNESCO's co-operation with Zimbabwe is expanding steadily. During the past year we have sent technical missions to your country at the request of the government to assist in various fields including teacher training and educational planning and management. We also had the opportunity to participate at the initial stage of preparing this seminar, particularly through the International Institute of Educational Planning.

UNESCO's participation in the educational activities of Zimbabwe has helped the organisation to understand more clearly the magnitude of the problems confronting this country and to appreciate the efforts that have been made since independence by the government and the people to reform the educational system and to ensure equal educational opportunities for all Zimbabweans without any discrimination. I am happy to note that the principles behind these efforts are in line with those which guide UNESCO's actions. Education is a major factor in nation building, in consolidating national independence and sovereignty, in regenerating and fostering the cultural identity of peoples and promoting social and economic progress. For above all, education, particularly in developing countries, must help the people to better understand their conditions and enable them to take the action necessary to improve these conditions. The task ahead will not be easy. It involves the building of a system based on the aspirations of the people and on their cultural heritage, as well as on the emerging national development policies and priorities. The problems of education will, therefore, have to be attacked on several fronts, including the social, cultural, political and economic dimensions. The fufilment of this task might in turn require a review of the broad development goals of the country, and a study of the role of education in attaining those goals.

In trying to accomplish your task you might wish to consider certain critical areas requiring special attention. The areas I am thinking about are: policy formulation and educational planning, management and evaluation; curriculum development and research, teacher training and higher eudcation; literacy training, adult education and education for rural development; and finally, science education, technical/vocational education, as well as education for productive work. Naturally, there are also other important areas, such as the production of educational technology. Here I would like to underline the particular importance of the teaching of science and technology at every level of education, as this is the only way of ensuring the endogenous development of science for the progress of a country.

In the field of policy, planning and educational management, UNESCO's experience clearly shows that a strong planning capability and well functioning administration are crucial ingredients for educational reform and expansion. We must therefore, consider ways and means for further strengthening the educational planning and administration mechanisms at national, local and institutional levels,

Curriculum development and teacher education are also critical components of any educational reform programme. In the case of Zimbabwe these areas are particularly significant because the content and perhaps structure of education need to be carefully reviewed in the light of the new priorities and requirements of the country.

Literacy and Adult Education: Making up for the Past

In a country like Zimbabwe where the majority of the citizens did not have access to education until recently, the importance of literacy and adult education particularly for those living in rural areas and in deprived urban centres can hardly be over emphasized. A well-conceived literacy and adult education programme can also provide major reinforcement for the formal education system by bringing closer together the realities of the world of work and the knowledge and skills to be gained in the schools.

In a newly independent country, the development of human resources at all levels to meet the needs of all sectors of the economy is always an extremely important responsibility. This is particularly true where the training of middle and high-level manpower is concerned. To review the existing situation and to propose viable schemes for the development of human resources for the country is an important challenge.

UNESCO's Committment

UNESCO will spare no effort to co-operate with the Government and people of Zimbabwe in all their endeavours to create a system of education which is truly efficient and effective, and which is capable of contributing to the cultural, political, social and economic goals of the country. Specifically, we shall be glad to extend our full co-operation in the areas I have tried to outline above and in any other priority fields within the competence of the organisation. For example we shall be pleased to provide advisory services for designing training programmes in educational planning and management; to help in organising intensive courses for educational personnel on a national or regional basis; to assist in preparing workshops or curriculum development, adult education, teacher training and technical and vocational education; to help in the promotion of teaching science and technology at all levels of education; and we are ready to co-operate in sector studies, educational research and evaluation.

EDUCATION AND THE NEW SOCIAL AND POLITICAL ORDER

Rev. Canaan Banana
President of the Republic of Zimbabwe

The previous colonial educational system which we inherited was designed to serve the interests of imperialism and the settler regime. The dual educational system - one for the few Europeans, Asians and Coloureds, another for Africans comprising 96 per cent of the population, was tailored to ensure the perpetual servitude of the African to the settler minority regime.

The situation created an imbalance in educational facilities, social and economic opportunities. Change in our educational system has to be initiated right now. Our independence should not only usher in access to material goods, but must also introduce crucial changes in our educational approach.

I am not speaking of mere cosmetic changes, but radical changes in the content and methodology of our education. The educational set-up must be brought into line with the new social and political order. It should aim at creating an atmosphere where children are not deprived of knowledge of the programmes of their government. I am advocating a practical educational system designed to complement rather than weaken the government objectives - a system that will be able to contribute significantly to the welfare and development of our nation. In short, the educational system should aim at providing an education that can create an all-round resourceful Zimbabwean citizen.

For education to be more practical and realistic, it is the task of the Ministry of Education and Culture to subject the educational system we have inherited to critical surgery with a view to working out a new system capable of serving the development goals of Zimbabwe. We must debate the national objectives of our new educational system and work out strategies for implementation.

In the initial stages of our educational reform, it will be necessary to de-educate in order to re-educate many in the teaching profession. To this end, a series of refresher courses for the teaching community will be necessary.

It is gratifying to note the level of international interest in our development effort. The signing of the agreement between UNESCO and the Zimbabwe Government on Saturday 29 August 1981 is a turning point

in our internal relations. We welcome with profound gratitude UNESCO's readiness to assist us in the process of reconstruction and development.

The challenge now facing our education planners is to expedite educational reforms. Sound development rests on a sound and healthy educational policy and system.

TECHNICAL AND IDEOLOGICAL EDUCATION:

SKILLS VALUES AND ATTITUDES

His Excellency Robert G. Mugabe
Prime Minister of the Republic of Zimbabwe

Coming one year after independence this seminar provides us with an excellent opportunity for stocktaking. This must involve a critical examination of the past, a realistic and honest review of the present and a projection of the future.

Education and Society

No society can exist without a relevant educational system. Education, the process of preparing individuals to meet the requirements of their existence as members of functioning communities, is a part of all societies. Education involves the diffusion and acquisition of knowledge, technology and skills as well as values, norms and attitudes.

The form of this process varies from society to society. It always sustains and ensures the survival of the social order. It is the core of societal existence itself.

If education is preparation for life in a given society its scope is all-encompassing: knowledge, skills, values, norms, attitudes. Since it is the mission of education to turn out men and women intellectually attuned to the requirements of their social environment, the ideological aspect of the educational experience is basic.

Colonial Education

This was certainly true of the colonial educational system. Interests of colonisers determined both the content and scope of education. This was done by law. In 1899 the educational ordinance created a segregated system of education. In 1981 this independent Government is determined to change, also by law, that unjust system where resources for African education was shockingly meagre.

For those Africans who did go to school, the colonial system, reinforced by missionary resources, aimed at inculcating attitudes of deference and subservience to foreign rule on the part of the colonised. Whether this was subsequently manifested in the form of the alienation of the so-called educated from their own people or culture, or in

their uncritical admiration and emulation of everything foreign, or again in their avoidance of any involvement in the titanic struggles of the masses for total liberation, it was all grist to the mill of colonial domination.

New Education for a New Society

Today we seek to build a new society founded on new values. We seek to build a socialist society in Zimbabwe. For us socialism means a self-reliant, egalitarian society founded on the humanitarian values of our own traditions infused with, and enriched by, the progressive thought of modern scientific socialism. Our schools, our entire educational system, must inculcate a socialist consciousness among our young people, that is to say, an attitude and sense of commitment to the development of our people collectively rather than the development of the self as an individual. Our schools must not merely teach such commitment, they must themselves practise it as well. Pupils must learn to work together productively for the good of their school and community. The school must be seen as in some way the community in microcosm. As such, the concept that the good of one should be realised within the context of the good of all, must always occupy the foreground and prevail, as much at the level of the school as at that of the community generally.

In Zimbabwe today, education must fundamentally orient itself towards the revolutionary transformation now taking place in many spheres of our society. Education must at all costs eschew all tendencies or even appearances of a commitment to the maintenance and reproduction of the unjust social order and undemocratic value system to the overthrow of which we sacrificed so much in the struggle. It must be designed to constitute an essential component of those forces making for positive change in our country.

This government is seeing to it that our educational system undergoes the requisite structural, curricular and philosophical transformation. We have already begun to move on many fronts in this regard.

We have added to our Ministry of Education the aspect of culture to emphasize the fact that the positive features of our cultural heritage, long neglected or trampled underfoot by colonialism, must be rescued and strengthened to enrich our lives. In regard to the educational system itself, we have introduced free primary education, boosted the school population enormously at both the primary and secondary levels, and embarked on an expansion programme that also involves the provision of adequate facilities for technical education and the accelerated training of teachers under ZINTEC. To cite but one statistic, the provision for education in our 1981/2 budget is $290 million (14.4 per cent of the national budget), the largest single item of government expenditure. Only a programme of education with production will enable us to continue this growing service.

These and similar actions, current and projected, underscore the importance we assign to education. We wish to build a new Zimbabwe as I have already stated above, but this quest will be frustrated unless we

have an educational system that is firmly orientated towards the transformation we seek. I may be bold to say, to change Zimbabwe we must first change the educational system. Our children in school today are tomorrow's workers and leaders.

What kind of workers and leaders they will turn out to be tomorrow is to a large extent determined by what education they obtain today.

THE NATURE AND FUNCTION OF EDUCATION IN ZIMBABWE

Dr Dzingai Mutumbuka
Minister of Education and Culture

Since independence in Zimbabwe the Ministry of Education and Culture has been working to expand educational opportunities to the masses, the majority of whom had previously been deprived of this basic human right. The number of children in school has expanded from 850 000 before independence to 1,82m today: primary education enrolment has increased from 780 000 to 1,68m whilst secondary education enrolment has increased from 74 000 to 142 000.

Such an expansion has not been without stresses and strains. In some villages one hundred children may be crowded into a single classroom. However, both teachers and pupils struggle on valiantly because they are absolutely convinced of the ultimate value of education.

Now we educationalists must stop to examine in detail what exactly this education is all about. It is for this reason that I have organised this seminar on Education in Zimbabwe, Past, Present and Future.

The aim of this seminar is to examine as clearly and as profoundly as possible the institutional framework of education that we have inherited from the past, the content and structure of that education and most important of all, the objectives we hope to achieve by our present strategy of extending such opportunities to the masses formerly deprived of the most basic educational facilities.

Many of us who are Zimbabwe's intellectual, cultural and educational elite may see the answers to today's problems in terms of solutions designed and tried out overseas. The masses, poorly educated and long oppressed, may find such solutions ill-suited to their needs. The main rationale Zimbabwe's government has for its existence today is the support of those masses. We won the war and won the elections because of the support of the masses of Zimbabwe. Would it not be treachery indeed to betray the interests of the very people who have brought this government into power?

Rather than perpetuating the traditional alienation of the educated elite from the masses, the best possible resolution for Zimbabwe today is for the educated to work for the good of the masses. Education in the future must be a mass based education which will serve the developmental needs of the masses. It must be based on an analysis of the present intellectual, cultural and technological levels of the people vis-a-vis their needs rather than on high sounding solutions from

overseas. These solutions are impracticable because, in the final analysis, it is the masses rather than the elite who must put solutions to work.

The education system therefore, must move away from its present stage, must cease to be an imitation of a pattern seen and admired overseas, and must instead serve the needs of the masses here and now. Education must serve the development of people. The transformation of an education system to suit the needs of Zimbabwe will entail a complete overhaul of the curriculum. Curriculum from Grade 1 onwards must be related to the needs of the Zimbabwe of today and of the future. Curriculum must be mass based and geared towards development, in particular to the development of the rural areas. Therefore, it must have a greater scientific and technological bias.

We know that education in the past was far too academic, aimed at preparing students for university. Only a fraction of our population can in fact reach university. Education as offered in colonial schools served only this minute fraction of the population.The majority received an education which was abstract and unrelated to their everyday lives. Or else they received no education at all. The curriculum of the future must be far more flexible, far more relevant to the lives of the people.

Curriculum change must also be closely related to production. It must gear learners towards improving their productive levels through the application of higher levels of technology than were previously available to the masses. As we learn best by doing, this will mean students must be producers. Every school must be a productive centre. At least one third of the school time must be spent on the theory and practice of productive work.

Since Zimbabwe is basically an agricultural country, one of the most important productive activities will be agriculture. Every school must have an agricultural project. Teachers must orientate themselves towards creating imaginative and satisfying learning experiences related to production. While productive activities must be undertaken seriously, they must also be fruitful and enjoyable.

It is because of the key role I see for "Education with Production" in the development of Zimbabwe that I have formed the Zimbabwe Foundation for Education with Production, ZIMFEP. ZIMFEP's role is to initiate and establish pilot projects related to education with production. This type of education was the practice during the struggle where education with production schools were the refugee schools in both Mozambique and Zambia. The education of the past which produced an intellectual and administrative elite completely cut off from manual work and from productive activities must end. Instead every teacher and every pupil must study and work towards the improvement of the local standard of living through the application of their learning to production.

Another aspect of educational reform is the question of nation building. After the traumatic experience of more than a decade of armed struggle, Zimbabwe's curricula must emphasize the unity of the people of Zimbabwe against the common enemies of imperialism, exploitation, poverty and ignorance. Unless we are united we will be unable to fight these common enemies.

Language plays an essential part in promoting national identity. In the past Zimbabwean languages have been relegated to an insignificant position. We expect that in the future all Zimbabweans will grow up able to have a working knowledge, not only of English, but of two other national languages.

It is impossible to change education without a reorientation of teachers. Teachers are one of the most important agents of change in Zimbabwe. However, teachers can also be a conservative element in society, opposing any change from the status quo. If Zimbabwe is to have an educational system which will serve the present and future developmental needs of Zimbabwe, then the teachers have a key role in this process of transformation. The Zimbabwe Teachers' Association must do all in its power to mobilise the entire teaching force behind government's drive for education for development.

The major expansion of education which we have seen, and will continue to see, will place great strains on teachers, in particular in the rural areas where the teacher is often the most educated and most skilled person in the community. As a resource person, and as a catalyst for progress, teachers must prepare themselves for a larger share of responsibility for Zimbabwe's war against oppression and underdevelopment. Teachers must not only be more hardworking than ever before, but must be prepared to change their own ideas and expectations. In the past, the educated Zimbabwean elite preferred to live lives of comfort in town. Today, they must be prepared to go to the rural areas to work with the masses. As leaders of the people, they must live as an integral part of the people from whom they have come.

In this regard the teacher training colleges and the university play a cardinal role. If they continue to produce the elitists of the past who cut themselves off from the people and the people's problems in order to promote their self-interest, then these institutions of higher education are working against the people. They then do not justify the high cost of their maintenance. Higher education institutions must produce research and learning of value to the people.

ZINTEC, the Zimbabwe Integrated National Teacher Education Course, has pioneered a new teacher training scheme for Zimbabwe with teacher trainees working with the people during their training. Moreover, a community service project is part and parcel of the course. ZINTEC is an example of the integration of theory and practice, of academic study and practical teaching.

The Zimbabwe we inherited after almost a century of colonial

domination was a Zimbabwe with some 70 per cent of its adult population illiterate or semi-illiterate, with an exceptionally high unemployment rate, with highly developed urban areas springing up like oasis in a desert of rural poverty and underdevelopment. The urban areas were wealthy and exceptionally well provided for. African rural areas formerly known as "Tribal Trust Lands" were rapidly becoming an extended desert as a result of overpopulation, poverty and deprivation. To perpetuate the system we inherited can only mean further development of the urban areas and of a small group of elite and further deprivation of the rural masses. This would be a betrayal of the people who fought and died to bring independence to this country. We aim to create a system to enable the rural masses to improve and control their lives.

Because we have a legacy of 1,9m illiterate and semi-illiterate adults, adult education must assume a far greater prominence than ever before. The non-formal education section in collaboration with other ministries and agencies, will embark upon the task of arming the masses with the necessary skills for control of their environment. In 1982 we plan to begin our first mass literacy campaign because we recognise literacy as a weapon in the struggle for development.

In the field of culture the coming decade will see not just a resuscitation of the Zimbabwe culture of the past, but the forging of a new culture able to embrace the experience of the present. Culture is not the preservation of the relics of the past in the form of works of art in museums, in traditional customs, traditional religion and traditional dances: it is the constant building of a living culture embodying and reflecting upon all aspects of our lives as Zimbabweans. We must hammer out a new culture capable of raising the people to new heights of cultural appreciation and expression.

Finally, we educationalists must move towards a unitary system of education rather than the highly diverse system we have inherited. This unitary system must provide equal educational opportunities for all Zimbabweans irrespective of race, and irrespective of whether they live in urban or rural areas.

Only by creating a unitary and egalitarian system of education can we hope to build a new Zimbabwe.

EDUCATION FOR A CHANGING ZIMBABWE

Fay Chung
Ministry of Education and Culture

It is impossible to look at education divorced from its politico-socio-economic context. Education does not exist in a vacuum, but plays a critically important role in supporting and stabilizing a particular politico-socio-economic order. If education does not provide the necessary academic, technical, managerial and attitudinal input necessary for the stability and development of the country, then it fails in its essential service role to that social order.

As educationalists and academics, we must examine in depth the role of education in Zimbabwe's present period of transition. Obviously if the politico-socio-economic order is not to undergo any change other than a change of personnel, a "changing of the guards", then it is quite possible to retain the previous educational system intact, with the existing administrative and wage structures, curriculum, examinations and teacher training. On the other hand, if it is the will of the first independent government of Zimbabwe to change the previous politico-socio-economic system, then we must change radically all these factors in the system.

We must see the armed confrontation as a violent reaction to a politico-socio-economic order which was against the interests of those who chose to take up arms against it. It is necessary to see what exactly was at stake during the war: why some felt called upon to attack and others to defend.

The colonial politico-socio-economic order promoted the interests of two small groups which were in the past easily identifiable by race. The racial perspective is, however, merely an incidental rather than a fundamental characteristic of these interest groups. It is quite possible for these interest groups to be equally well represented and protected by a black ruling class.

The two major interest groups in Zimbabwe are corporate interests and settler interests.

Table 1

FUNCTIONAL DISTRIBUTION OF GROSS DOMESTIC INCOME (FACTOR COST)

1960-74

(millions of dollars)

	Wages		Imputed Rent		Gross Operating profit	
Year	Value	%	Value	%	Value	%
1960	324,4	58,1	12,9	2,4	220,5	39,5
1961	334,1	56,0	13,5	2,3	248,0	41,7
1962	247,6	57,2	14,1	2,4	245,5	40,4
1963	259,6	58,3	14,1	2,3	242,6	29,3
1964	370,6	58,3	15,0	2,4	249,4	39,3
1965	396,2	57,8	15,5	2,3	273,1	39,9
1966	408,1	59,3	16,2	2,4	262,3	38,3
1967	426,9	56,5	17,8	2,4	309,4	41,0
1968	465,3	59,2	19,1	2,5	300,5	38,3
1969	570,5	54,7	21,8	2,4	400,6	42,9
1970	554,7	56,1	25,3	2,6	408,0	41,2
1971	621,5	54,2	28,1	2,5	497,5	43.3
1972	697,1	53,5	30,9	2,3	575,6	44,2
1973	777,3	54,4	34,5	2,3	616,2	43,1
1974	900,3	51,3	37,3	2,2	798,1	45,9

Source: Rhodesia, National Income and Balance of Payments, 1974 C.S.O., Salisbury 1976. Taken from Table 46, D.G. Clarke, The Distribution of Income and Wealth in Rhodesia, Mambo Press, Gwelo, 1977

Table 1 shows that Gross Operating Profits increased from Z$220,5m in 1960 to Z$798,1m in 1974. More significantly, Gross Operating Profit constituted 39,5 per cent of Gross Domestic Income in 1960 but steadily increased to 45,9 per cent by 1974. This increasing percentage of profits is at the cost of wages, which shrank from 58,1 per cent of Gross Domestic Income in 1960 to 51,3 per cent in 1974. Thus corporate interests showed significant gains during that period, enjoying an increasing share of the national wealth. Corporate interests are divided between large transnational interests and smaller settler enterprises.

The other side of the picture, the different gains of the two main racial groups, the blacks and the whites are shown in Table 2.

Table 2

WAGE SHARE OF INCOME

1965-74

(dollars : millions)

Year	European Wage Bill	African Wage Bill	African as Percent of Total	Total Wages Bill	Total Bill as % of G.D.P.
1965	231,9	164,3	41,4	396,2	53,6
1966	240,7	167,5	41,0	408,1	55,4
1967	250,3	176,6	41,4	416,9	52,9
1968	272,0	193,4	41,6	456,3	54,9
1969	296,7	211,8	41,5	510,5	50,9
1970	325,6	229,1	41,3	554,7	51,7
1971	366,4	255,1	41,0	621,5	49,9
1972	411,7	285,4	40,7	697,1	49,6
1973	460,7	316,6	40,7	777,3	50,4
1974	528,4	372,1	41,3	900,5	48.9

Source: Rhodesia, National Accounts and Balance of Payments of Rhodesia, 1974

C.S.O., Salisbury, 1976, Table 233. Taken from Table 48, D.G. Clarke, The Distribution of Income and Wealth in Rhodesia, Mambo Press, Gwelo, 1977

From the table it is clear that the African share of wages over the period remained a fairly constant percentage of the total, round about 41 per cent, yet the number of black workers was and is more than six or seven times the number of white workers. For example in 1969 (at the time of the last census) there were 93 512 white employees as compared to 610 970 African workers in 1961, and 722 410 African workers in 1971. (Figures from 1969 Census of Population and Rhodesia, Wage Distribution of African Employees, June 1971, C.S.O. Taken from D.G. Clarke, The Distribution of Income and Wealth in Rhodesia, Gwelo, 1977). In fact, the average African wage was roughly one eleventh of that of the average white wage. Thus although whites constituted roughly 5 per cent of the total population, they enjoyed 59 per cent of the total wage bill. The number of blacks enjoying incomes comparable to those of whites under the colonial regime was negligible: a mere 3 117 in 1974 (Source Rhodesia, Income Tax Statistics 1974-75, C.S.O. , Salisbury).

That brief analysis of the economic interests represented by the old regime brings us back to the question of how far the education system promoted and stabilized that particular infra-structure. The different education given to white and black children was a necessary part of

the old order: white schools, later renamed as Group A schools under the Muzorewa regime, were and remain highly privileged. An average of Z$ 491 was spent on the education of each white child in 1977-78. A black child's education in the same year cost Z$45. (Statistics from Roger Riddell, Education for Employment, Gwelo, 1980. 1980 p 23). In addition to this differential, African education catered for less than 40 per cent of the school-age population.

At higher skill levels this differential was very marked: white education produced 2 354 pupils with post-O level school education in 1977 as compared to 522 produced by black education. Blacks thus constituted only 18,2 per cent of the total pupils leaving school with one or two years of secondary education, then from 1961 to 1977 the two education systems produced 82 283 white higher level personnel as compared to 39 974 black higher personnel (Statistics from Colin Stoneman, Skilled Labour and Future Needs, Gwelo, 1978. pp 25 and 53). Blacks receiving three or more years of secondary education thus constituted 32,7 per cent of the total (when in fact blacks constitute 95 per cent of the population). At the base we have large masses of black children receiving little or no education.

This differential in educational opportunities and facilities meant that whites were able to maintain their strong control of the economy, while blacks filled mainly middle level, semi-skilled and unskilled positions, with large numbers being relegated to subsistence agriculture in the already impoverished "Tribal Trust Lands". Unemployment and under-employment among blacks is estimated to be as high as 70 per cent of the adult population, with little prospect of these numbers being absorbed in the existing economic structure (Riddell Education for Employment, Gwelo, 1980, pp 36-37).

The two educational systems followed and even now continue to follow different curricula, write different examinations, with teachers even trained in different institutions. In earlier years, black teachers often had so-called "non-standard" qualifications entitling them to low pay, while white teachers obtained "standard" qualifications entitling them to high pay.

Different curricula, particularly at primary, lower secondary and teacher training levels, assisted in ensuring that the economic interests of the old order were properly protected. White education used textbooks mainly from Britain, while black education used books either specially written for blacks or adapted from S. African textbooks. Neither curricula is appropriate for the new situation.

Previous governments served the interests of the transnational and settler enterprises at the expense of the interests of the vast majority. In order to do so, education systems produced a very small educated elite of technocrats dominated by whites, a slightly larger number of middle level managerial, clerical and professional personnel again dominated by whites, and finally large masses of illiterates and semi-literates. The educated elite was able to service the high and middle level technology used in agricultural, industrial, banking and commercial sectors owned by transnational and settler interests.

The masses provided a source of cheap labour.

A government which serves the interests of the masses will be committedto a change in the focus of power, thus creating a new politico-socio-economic order. The existing education system would then be in direct contradiction to government intentions. A new system will have to be developed to service the new order.

New enterprises with job creation potential must be created. But such new enterprises cannot be embarked upon without far larger numbers of high and middle level personnel than are at present available.

Mass based education must involve a tremendous expansion of educational opportunities to people previously unable to benefit from education. This entails universal access to basic education for both children and adults. It also entails a proportionate increase at middle and higher levels.

The content of education must also undergo change if the politico-socio-economic infra-structure has changed. The content of education can be summarised as: concepts, attitudes, skills, knowledge.

The concepts of elitism and authoritarianism inculcated by the previous education systems are unsuitable for the new order.

An attitude of respect for labour is necessary in self-reliant Zimbabwe. Because of the low status and extremely poor monetary rewards for peasant farmers and industrial workers in the past, these are still regarded as undesirable occupations.

Managerial skills are essential to all workers.

Whether the school curriculum teaches knowledge of local and pan-African interest, or whether it contains material mainly related to the former colonial metropolis, depends upon the aim of that education system. Education for a changing Zimbabwe must entail the creation of materials relevant to understanding and controlling our own environment.

Change in education must be related to change in the whole infra-structure of society. Serious problems arise when the education system is out of line with the mainstream of development in society.

CURRICULUM DEVELOPMENT IN MOZAMBIQUE

Mozambique Curriculum Development Staff

We propose to deal with curriculum development in Mozambique from the historical point of view. We shall consider especially the last phase of the colonial era: of the FRELIMO experience in the liberated zones of the first years of our independence and our present struggle to create a new system of education.

The Last Phase of the Colonial Era

In 1950, the official statistics show a total population of 5 738 911 inhabitants of whom 91 954 (1,6 per cent) were non-indigenous and 5 646 957 (98,4 per cent) indigenous. The total number of pupils enrolled at all levels of education was not more than 180 000: less than 4 per cent of the entire population and not more than 8 per cent of the age group 0-14 years of age. This number of pupils was composed of an overwhelming majority of white pupils enrolled mostly in the second and third level of education. The situation was no better later, as the table below shows:

Formal and Non-Formal Enrolment

Year	Population	In School	Not in School
1950	5 738 911	180 000	2 400 000
1954	6 459 194	206 016	2 583 000
1966	6 956 000	471 857	2 782 240

What is important in this data is a dismal picture of education in colonial Mozambique where two systems of education were installed: one to cater for the coloniser and the other for the colonised. The content, curricula and methods of instruction were tailored to match the colonial objective. For example, for the elementary school: the glories of Portuguese maritime discoveries, Portuguese language, the history and geography of Portugal, and the miracles of Our Lady of Fatima in religion, were taught.

It has been widely demonstrated that educational objectives have their social, historical, cultural and economic context. The development of the curriculum, or lack of that development, in our schools often reflects the class character of education, the powers that dominate, their policies and politics. In our society education was meant to be an instrument of exploitation of man by man.

The results are a glaring evidence that curriculum development in the colonial situation was highly selective, restrictive, discriminatory

elitist and against the intellectual development of the majority in different levels of the economy. It restricted social and political mobility and participation by denying equality of opportunity, although egalitarian political policies adorned the legal rhetoric of Portuguese laws. It fostered class and racial distinction with the correlative effects of producing arrogance in the rich and inculcating irrational humility in the poor. More important, however, was the aim to ensure that the majority of Mozambicans should not become politically conscious.

The Formation of FRELIMO and it's Educational Process

The formation of FRELIMO in 1962 brought a change of direction to the whole process of education for liberation in the country. Education became an instrument in the hands of the oppressed to liberate themselves and the society from the oppressors. Colonial models of education and curricula were questioned, studied and rejected in the face of practical activities. In 1968 the first Conference of Education and Culture elaborated the experience gained from the armed struggle, from the existence of the Mozambique Institute, from the political and ideological essence and nature of the school we struggled to build, from the emerging liberated zones.

It concluded that education and culture must be part and parcel of the struggle to liberate and reconstruct a country devastated by Portuguese colonialism. Curriculum Development had to answer to the needs of the armed struggle and national reconstruction, that is, it had to face up to the realities and needs of the country and not just answer to "models", "standards" and aspirations alien to the development of the people and their country. Three years later the second Conference of Education and Culture laid general guidelines as to the education of the New Man to win the war and reconstruct the country. The relevancy of education, production and armed struggle was united in the same objectives, task and mission. All schools under FRELIMO had to strive to maintain unity in the development of the curriculum so as to encompass the need for study, production and struggle.

Almost at the same time, 1971/72, the national seminar on culture was held. The results were to have far-reaching effects in Curriculum Development. It was recognised and valued that culture must form part and parcel of the development of the personality of the New Man. In 1973 the first National Seminar on Pedagogy Teaching/Learning Methods and Content was held. This brought teachers of all levels to a common discussion of revolutionary education processes.

These experiences and others accumulated during the struggle for national liberation were to have their results felt in the years of independence, especially with regard to Curriculum Development.

FRELIMO's Policies after Independence with regard to Curriculum Development

The motive force in the development of education in the country has always been the Party. FRELIMO under its wise and dedicated leader, President Samora Moises Machel, and the Central Committee, have always

given great attention to the development of education. This is evidenced by the study and orientation made to turn the school into a base for the people to have power. We had to make democratic changes through democratic participation.

In 1975, the Beira Education Seminar was held. Teachers from the liberated and other zones which were controlled by the colonialists came together to analyse the experience gained in the struggle. Immediate changes were made in the curriculum. Guidelines were laid down for political and ideological education, the organisation and administration of schools, co-ordination and co-operation among teachers of all levels.

We held the Ribaue Seminar on Adult Education and Literacy. FRELIMO had always taught that education is a right and a duty for all citizens. The seminar created groundwork for the creation of the National Directorate of Adult Education and Literacy. Other seminars of great importance were held after independence on: Technical Education; Physical Education and Sports; Fesitval and Cultural Activities; Special Education and Pre-school Education.

The formation of the Party - FRELIMO - in 1977 crowned many years of struggle to create a socialist state and paved the way to the rapid development of a socialist personality, educated and cultured through socialist education. Curriculum Development had to change to respond to this qualitative advance.

Underlying all changes, however, was the constant and permanent need to train, educate the teachers as agents of change in the process of formation of the New Man.

Since 1979 the National Institute for the Development of Education INDE) has been involved in a major overhauling of the education system. This project is following the guidelines laid down by Frelimo's Third Congress (February 1977) and is integrated in the national development plan for the decade 1981-1990.

The third Congress studied education in Mozambique and defined several guidelines for its future development:

First among these is the principle that the revolution can only advance and succeed if we create a new man with a new mentality. This constitutes a task for the whole of society but especially for education. The nature of the schools has to be changed in order to turn them into centres where people's minds are changed in order to assume the values of the workers and peasants, to acquire a commitment to the interests of the working class.

A second guideline is the principle that education is a right of all citizens. The educational system has to create conditions which allow the enrolment of all children into primary school and which will lead

to the eradication of illiteracy among the adult population.

Priority has to be given, at all levels, to the education of workers and peasants and their children, because they constitute the leading force of our society.

A third guideline indicates that the education system has to be closely related to planned social and economic development. Education must be an instrument, a driving force, for development.

Since the Third Congress of the Party, we have embarked upon the planning of our social and economic development. We now have a plan for the whole decade 1981-1990, decade "of the victory over underdevelopment".

Our National Education System is an integral part of the development plan for the decade. The types of institutions, level, enrolment figures, content of education, etc., are defined according to the planned manpower needs. The expenditure for the construction of new schools, for the payment of increasing numbers of teachers employed, is foreseen in the financial plan.

Structure of the National Education System

The system consists of five subsytems, all closely linked and co-ordinated: general education, adult education, technical education, teacher education and higher education. Within the general education subsystem are three levels: primary level (7 years) free, universal and compulsory as from 1985 onwards; secondary level (3 years); and pre-university level (2 years).

The adult education subsystem has assumed a particular importance since the colonial government left us with well over 90 per cent of the population illiterate. We know that short term economic development depends mainly on the existing labour force. By passing through the adult education programme, an illiterate will be able to reach the end of the secondary school level in 7 years time, spending 2 hours daily in classes. Within this subsystem are provisions for full-time accelerated courses for vanguard workers in order to enable them to enter into university, and later on take up leading posts in all spheres of life.

The types of courses offered and enrolment figures of the University Eduardo Mondlane are determined by the needs and priorities of the nation's social and economic development, as well as by the available resources.

Curriculum Development for the National Education System

One of the main tasks is an overall revision of the content of the National Education System. This is the responsibility of the National Institute for the Development of Education, in collaboration with other structures within the Ministry of Education and Culture. The main steps in this process are:

1. A broad definition of the general objectives of our education, based on the party and government directives, policies and plans.
2. Definition of the objectives of each subsystem.
3. Naming the subjects to be taught in each course.
4. Deciding the objectives of each subject.
5. Writing of new syllabuses by subject panels, including specialists and teachers at all levels.
6. Writing of textbooks, teachers' manuals and students' exercise books by members of the same panels and, if necessary, other teachers.
7. Editing of the written material by an editing centre within the Institute.
8. Printing of this same material by the government or a private local printer.
9. Distribution and sale of books and manuals to schools or students, at cost or at a subsidised price.

During the years 1979 and 1980 we held 3 seminars on the teaching of language, mathematics and political education, in support of the curriculum development. These had the participation of cadres from the Ministry of Education and Culture, teachers of the respective subjects at all levels and representatives of other ministries, of the Party and of the democratic mass organisations.

Evaluation

In the new National Education System, we will revise the system of students' evaluation. We plan a combination of both continuous assessment and final examinations.

At present examinations are set by the Ministry of Education and Culture and marked by teachers. Students who do not manage to pass get a chance to repeat the final year and sit for the exam once more. Those who do pass are given places in advanced schools by the government. In this process priority is given to the needs of the nation. Before the students indicate their preferences, they are advised about the manpower needs and their own demonstrated capacities. This is so that they may indicate preferences which are realistic and may most likely be fulfilled.

SECTION II - EDUCATION FOR SOCIAL CHANGE

CREATING A NEW MENTALITY

Sr Janice McLaughlin MM
ZIMFEP

"Our country will need mental decolonization just as much as it needs political and economic independence." This statement from ZANU's basic policy document sums up the challenges facing the new government of Zimbabwe and in particular, the Ministry of Education and Culture.

The education system which Zimbabwe has inherited was one of the lynchpins in establishing and maintaining the inequality which characterized every aspect of Rhodesian society. Independence brings with it the promise that such institutions will be transformed and education will then become a true service of the masses and not merely a means of mental colonization.

There are strong pressures to simply expand the present educational facilities without altering the whole setup. When he was running the refugee schools in Mozambique, Dzingai Mutumbuka, Zimbabwe's Minister of Education and Culture, warned against such an approach. "We cannot just copy the colonial educational system wholesale," he said, "because this will perpetuate the colonial mentality which will destroy our revolution."

The struggle to decolonize the mind was an integral part of the liberation process in Zimbabwe. Political education was the key to achieving this goal. All of ZANU's recruits received both political and military training. The political commissariat was responsible for providing the political education and established Chitepo College, an ideological training institute at Chimoio. Both long and short courses were given at Chitepo to prepare the young freedom fighters to explain their cause to the people at home and to win their support. Those with a gift for speaking and higher academic qualifications were often appointed political commissars and given more advanced political training

The freedom fighters used many creative methods to teach the people. Songs, slogans, traditional dances and all night meetings popularly known as pungwe's were some of the ways they reached the rural population. The Voice of Zimbabwe, a nightly radio programme of news and commentary broadcast over Radio Mozambique, also helped to get the message across to thousands.

As the war intensified in 1972 a new situation developed in which hundreds of people fled from Rhodesia to live as refugees in

neighbouring Mozambique, Zambia and Botswana. When Mozambique gained its independence in 1975 the number of school-age refugees grew so rapidly that ZANU decided to accept the responsibility of providing education for them.

This marked ZANU's entry into the formal education sphere. The political commissariat was given the task of organizing schools in the refugee camps. The first school began to operate on 1 November 1975 at Mavudzi Camp in Tete Province near the Malawian border. Classes ran from Grades 1 to 7 under the direction of seven trained teachers who had been reared in the colonial system. There was a headmaster in charge and the teaching methods and subjects were similar to those in colonial Rhodesia, minus textbooks and other school equipment.

In March 1976 a second school was opened at Chibabava in Manica Province not far from Umtali. It was headed by a team of three and had a staff of 40 teachers, 25 of whom had teaching experience in Rhodesia. Classes went up to Form II and were held in the evenings as well as in the day to accommodate all the students. Another school was soon opened at Doeroi Camp in Sofala Province.

The three schools operated independently though officially there was one overall director at Mavudzi. However, problems of communication and transportation made it impossible for the director to coordinate the education system properly. This hit and miss approach convinced ZANU that education deserved more attention, and in May 1977 the Party created a Department of Education headed by Ernest Kadungure. A few months later Dzingai Mutumbuka, the present Minister of Education and Culture succeeded him.

From its inception the department grew by leaps and bounds. By the time of the Lancaster House Conference in September 1979, ZANU was running eight schools in Mozambique from Standard I to Form V with a total student population of 24 000. It had recruited and trained 700 teachers for the task, was producing its own textbooks and curriculum and was also running four-month teacher training courses as well as an administration course.

The New School for a New Society

Not only had the number grown, but a whole new system of education had begun to be developed. As Cde. Mutumbuka explained to funding agencies in 1979, "The long term objective of our education project is to evolve a sound educational policy for a future independent state of Zimbabwe. To us it is quite clear that the present colonial system of education in our country cannot be continued because it expresses primarily the values, and is an arm of, settler domination. We aim to introduce a system of education that is people-centred, that is, expresses the values and aspirations of the black people, particularly in the rural areas, and is based on the principles of self-reliance."

The new system, as it developed in the refugee camps, had three main components: physical training, mental training and production. According to Mutumbuka, this model was "a synthesis of: what the founding fathers of socialism teach us; the struggles and experiences

of other countries;the unique nature of our own struggles and the mistakes and successes we have achieved so far."

The experiment was carried out under the most difficult conditions. There were no classrooms, no textbooks, a shortage of basic educational materials such as pencils and paper and often little food. Far worse were the constant raids by the Rhodesian security forces. Many students and teachers were killed in these attacks and others wounded. Schools had to be moved repeatedly and security measures adopted such as holding classes about an hours' distance from the camps.

These hardships had positive consequences, however. The lack of materials forced ZANU to search for creative and inexpensive ways to educate without all the trappings of a costly, westernized school. The attacks unified and politicised both students and instructors.As Mutumbuka explained, "We live in the shadow of death and this bond unites us together. It unites teachers and pupils and does away with stratified relations. We are all comrades. We are fortunate to be in this environment where we need each other. It has created a unique community where you put the interests of the group above your own individual interests." Elsewhere he stated, "These attacks have inculcated a unique sense of security, discipline, consciousness and collective spirit in our youths. Our youths are all conscious of who they are and of their responsibility to the Zimbabwean revolution."

There was a unique sense of dedication and purpose and a common willingness to sacrifice for others. Everyone knew that this was part of building the new Zimbabwe and they were proud and happy to be involved. The camps were a form of liberated area where they were free to experiment and to prepare for the future.

In this unique situation an educational system was created with the following characteristics:

1. Integration of manual and mental work - The colonial system depended on the division between mental and manual labour to build a rigid class system which followed racial lines. Mental work was reserved for the handful of whites who were considered superior while manual labour was relegated to the majority of black Zimbabweans who received no education or only enough to make them useful workers for the benefit of the few. In the colonial school, manual labour was used as a punishment for those who misbehaved or failed in their lessons, thus creating a very negative attitude towards this kind of work.

In the refugee camps on the contrary, manual labour or production was a major activity which occupied two to four hours on the daily timetable. Students and teachers alike were divided into work brigades which built houses, desks and benches, cooked food, fetched water, washed clothes, tended the garden and sewed clothes. These duties rotated so that everyone had the opportunity to learn each skill. This emphasis on production promoted the goal of self-reliance and a respect for the dignity of physical work. Describing the benefits of this practice, Cde. Mutumbuka observed, "We teach that all wealth comes from human labour and that to build a hut, for instance, is as important as to write an essay."

Teachers attending ZANU's teacher training and administration courses experienced this lesson in practice. They were given some of the more difficult tasks and were usually responsible for sanitation, which meant cleaning the pit latrines. They launched a sanitation campaign in Matenje camp, for instance, and prepared a survey of the results as one of their class assignments.

In the classroom they learned the ideological basis for their labour. As the teacher training lectures for the "Philosophy of Education" course stated, "For the true revolutionary, mental work is inseparable from manual work and the division of mental workers from manual workers can only be part of mental colonization. It is part of the inculcation that the existing class structure is to be accepted and can never change ... Therefore, the division between mental and manual work, between theory and practice, between ideas and action, must be the first division that must break down in the revolutionary school.

2. Dialogic teaching methods - The teacher in the colonial classroom was the ruler, the oracle, the expert. The teacher's role was to pass on the knowledge that he or she possessed to the ignorant. This was generally done through the lecture method and was a classic example of what Paulo Freire calls the "banking system".

In the new Zimbabwe the teacher is meant to be a "fellow explorer", and a student/teacher relationship is intended to be reciprocal. In lessons on the "Revolutionary Teacher", ZANU cadres were taught: "The revolutionary teacher must first of all free himself from the tendency to claim to know everything. He is a guide to students exploring knowledge, rather than an authority who can never be wrong".

This new relationship has far-reaching consequences for the type of teaching methods adopted. It means that there will be less monopolising by the teacher. Dialogue, discussion and group work will replace long lectures. Creative play, experiments and projects will be frequently utilized. All of the learning will be related to the students' lives and experience and will also be relevant to the local community in which the school is located. For instance, the following projects were suggested in the teacher training lectures: "shortage of soap in the community could lead to the study of the soap-making process in the science class,followed by the making and marketing of soap. Shortage of sugar could lead to a study of how sugar is processed from sugar cane, followed by laboratory experiments. A shortage of shoes could lead to a study of how to tan hide to make leather.Thus learning can be directly relevant to the needs of the community." For instance, the forty-four participants in the administration course were asked to analyse and write a report on the system of distributing clothing in the camps and to devise four alternative plans which would be more effective. They were asked to do a similar study and plan of the method of feeding and serving the 4 000 people in the camp. This type of probleme-solving assignment not only taught the students how to think critically, and to restructure their own reality, but it was also utilitarian since the best plans were adopted and all could immediately experience the benefit of their learning.

3. Collective organization and administration - The administration and organization in the colonial school was centralized and hierarchical. There was little or no opportunity for parents, students or even teachers to make suggestions or offer criticism.

The refugee schools were run democratically which means that authority was decentralized and decision-making was shared. For example, there was no principal or headmaster at the School of Administration in Maputo. The school was run by the students and teachers themselves, organized into seven committees: discipline, production, recreation and political commissariat, health, administration, secretariat and logistics. Weekly review meetings were held at which there were long criticism/self-criticism sessions. This type of collective leadership built confidence, initiative and responsibility.

In the refugee camps, every group of ten students selected a leader from among themselves. Other leaders were chosen for every group of 40, 150 and 500. The student leadership structure was similar to that of ZANLA, the Zimbabwe African National Liberation Army, because of the strong links between the military and educational struggle for liberation.

Each school was governed by an administrative body of about ten leaders. These included academic heads as well as non-academic leaders such as the camp Production and Construction Officer and the camp Health Officer. Decisions were made by all and frequent review meetings were held to evaluate progress and solve problems. Periodic reports were sent to the Secretary for Education and Culture in Maputo to ensure coordination between the eight schools which were spread over immense distances in Mozambique.

It was anticipated that the local community would also play an active part in school administration in independent Zimbabwe. As the teacher training lectures suggested, "Parents and community groups will have a big say in the running of the school, disciplining of teachers and students, organization of syllabuses and time-tables to suit the needs of the community." The lectures go on to recognize that this may radically alter the school and point out, "It is likely that the community may demand expansion of educational facilities such as specialized courses in accountancy, industrial work, administration, etc. for adults according to the needs of the people."

4. Cooperation instead of competition - Another feature of colonialism was the stress on competition. Success meant getting ahead of others and knowing more than them. This led to individualism and to the hoarding of knowledge as if it were a private possession. As ZANU teachers learn, "Examinations, the placing of students in ranks according to their academic performance, the giving of prizes to the privileged few, competition between classes, are all part of a system which teaches us to regard each other as rivals fighting for only a few prizes which not many of us can win ... The products of the system are people who work only to gain wealth and prestige for themselves, not caring at all for the well-being of the masses whom they despise as inferior. Thus colonial education produces an elite

that will help the colonialists."

To counter this self-centred approach, the ZANU schools encouraged cooperation through group work, group projects, group research, group decision-making and group criticism and self-criticism. The more advanced students shared their knowledge with the less capable and the classwork was seen as mutually beneficial and not for the advancement of a few.

All were enabled to complete their studies in total contrast to the colonial system which was geared to selecting only a tiny minority to go on to secondary school.

Examinations in the camps had a very different purpose from those in Rhodesian schools. Instead of weeding out "unsuitable" people, the ZANU exams were meant to assist both the students and the instructors to assess their progress and to know where improvement was needed. According to the teacher training lectures, "examinations in the revolutionary situation are to help the students, not to terrify or hinder them in any way. If this is so, then there is no reason why students should not have a big say in what type of examinations will best help them to diagnose their weaknesses, or to teach those areas in which they are more talented. Students should be able to criticise the examinations."

The spirit of cooperation in the camps was reinforced by the communal lifestyle. As Cde. Mutumbuka observed, "The necessity of living together, suffering together, struggling together for the good of each and every one has engendered a very strong collective spirit in all our youths. Our schools are a living testimony of genuine communalism."

There was a deep spirit of sharing in the camps. Material possessions were few but people gave freely to others the little they had. A bar of soap, which was a rare luxury, was passed around and used by many. The few radios were put in public places where many could listen to them. A new set of values and a new morality were being developed in the camps which were the opposite of the individualistic, self-centred attitudes instilled by colonial capitalism.

5. Promotion of Culture - Under colonialism, traditional culture was suppressed as primitive and savage. Children were taught to be ashamed of their African heritage and to aspire to be like the colonialists. Schools provided a foreign environment on African soil where a new breed of black Europeans were produced who imitated their colonial masters in every way: the language they spoke, the clothes they wore, the food they ate, the houses they lived in, their whole lifestyle.

The liberation struggle heralded a cultural revival. Traditional songs and dances were given a revolutionary message and became a means of teaching people about the struggle as well as restoring pride in their past. Cultural officers were appointed in every school to encourage and coordinate cultural activities. All the students joined cultural groups of their choice and would perform at various celebrations and on national holidays.

The themes of their poems, songs and plays were related to their experience in the revolution. "Our youth write poems about the sacrifices the Zimbabwe masses are enduring for the sake of the revolution," explained Mutumbuka. "Their heroes and heroines are the unknown member of ZANLA who is shedding his blood for the liberation war and the poor peasant woman who is shot every day for curfew-breaking in order to feed the liberation forces."

A play called "Black is Beautiful" was written and performed in the camps. It depicts an African youth who is so alienated from his culture that he pretends he is "coloured" and is drafted into the settler army. He is eventually captured by the freedom fighters who take him back to his village where he is reunited with his people. The play ends with the freedom fighters telling him to be proud of his people and his culture.

6. Physical exercise - In addition to manual labour, several hours a day were devoted to physical exercise in the refugee schools. The first two hours of the day were spent marching, running and performing callisthenics. A favourite memory of the camps is the sound of freedom songs echoing through the forest as the first rays of the sun filtered through the trees lighting up rows of students exercising in unison.

Sports were also popular in the camps and there were regular soccer and volleyball matches. The development of strong and healthy bodies was a prerequisite for carrying out the heavy schedule of manual and mental work and prepared the youth for the strenuous work of rebuilding Zimbabwe after the war.

7. Equality of women - Both colonialism and traditional African society discriminated against women. In the educational sphere, few girls were sent to school for various reasons. The only careers open to the educated were teaching and nursing, and the majority of African women in paid employment were domestic servants.

The armed struggle challenged traditional views of women and traditional sex roles. Women joined the liberation army and were given the same military training as the men. They were appointed to leadership positions in the army and in the Party. A woman was the Deputy Secretary for education and another woman was in charge of Culture. As Mutumbuka noted, "Formerly men were considered more important than women. Women were merely tools. But when you struggle together with your women and see them sacrifice you can no longer hold these views. Some of our greatest heroes are women."

The refugee schools gave equal treatment to both boys and girls. All attended the same classes, all performed the same physical exercises and the same manual labour. The women, for instance, built houses in the camps which would have been unheard of in traditional Shona society. ZANU selected equal numbers of men and women to go for advanced training overseas and women were trained to be mechanics, drivers, engineers, carpenters and other professions usually reserved for men. The abolition of sex discrimination in education was one of the promises during ZANU's election campaign.

The Role of the Research Unit

The key to the success of this experimental programme can be largely traced to the Research Unit which was set up by the Education Department to facilitate thorough planning and to resolve problems. The unit, composed of about 15 of the most experienced and competent teachers, had its headquarters at Matenje Camp in Tete Province.In addition, there were research groups at four of the other camps and in the liberated areas inside Zimbabwe. In their annual plan for 1979, the Research Unit outlined the following aim of their programme:

1. To develop a revolutionary scientific socialist basis on which to build the education system in an independent and free Zimbabwe. This includes:

   (a) training teachers and education cadres to take over and administer the education system in Zimbabwe;

   (b) training personnel for research and teacher training;

   (c) writing syllabuses suitable for our revolutionary education system;

   (d) writing textbooks suitable for our revolutionary education system;

   (e) translating important texts into Shona, Ndebele and any other vernacular languages;

   (f) writing basic reference books on Zimbabwean issues, e.g. Zimbabwean history, culture, economics, etc.

2. To provide basic research needed by the Party.

3. To establish, on an experimental scale, small industrial cooperative projects, which can later be models for transfer to rural industries and school industries in Zimbabwe.

4. To establish, on an experimental scale, agricultural cooperative projects which can later serve as models for cooperatives in schools and in rural areas in Zimbabwe.

Another section of the report listed the types of original research that needed to be done. Included under this heading were topics such as research into Zimbabwean history, in particular the struggle from 1890 to the present; development plans for education, agriculture, industry and rural development; plans for changing large white farms into peoples' communes; class analysis of Zimbabwean society; analysis of manpower needs and how to solve them; analysis of conflicts and how to solve them.

As the report warned, "Without detailed analysis it is impossible for our leaders to have enough information on which to base decisions and this lack of information may be a serious drawback to our struggle."

The main problems of the unit itself were lack of personnel and lack of good library facilities. In spite of this, their accomplishments were tremendous and included producing syllabuses for all

subjects in both primary and secondary school as well as a four year adult education syllabus; writing numerous textbooks; running teacher training courses; running short teacher training seminars; holding a seminar for creche (nursery school) teachers; supervising instructors in the schools; preparing and administering examinations; and running an administration course to train personnel for the new education system in Zimbabwe.

The Research Unit continues to exist as a Party organ which assists the Minister of Education and Culture. At the time of independence, for instance, a team from the unit travelled to all the schools in the country assessing the damage that had been done during the war and the cost of the repairs that would be needed in order to reopen the schools.

The Minister of Education and Culture has proposed the establishment of an Institute of Education which would assume the functions of the Research Unit and include many of the same personnel. This would be located in a rural area so that agricultural self-reliance and manual labour would continue to be an integral part of the programme and would keep the staff in touch with the realities of rural life in Zimbabwe.

Many of the Research Unit staff have applied for posts in the Ministry of Education and Culture and are awaiting appointments from the Public Service Commission. There is the possibility that the Commission, which tends to support the status quo, may block their appointments in favour of Zimbabweans who studied overseas, who have not participated in the struggle, or in the creating of a different kind of education system in the refugee camps. They can justify their choice on the grounds of qualifications, meaning diplomas and degrees rather than actual experience and commitment.

Textbook Production

The lack of textbooks in the camps proved to be a blessing in disguise because it forced the Department of Education to produce its own teaching materials. The Research Unit was given this important task. After analysing the colonial books and identifying their weaknesses and errors, the unit embarked on an ambitious programme to publish its own series of books. Initially it produced lesson notes in mimeographed form which were tested in the camps and then revised. In January 1979 four of the staff attended a one month UNESCO course in textbook production and passed on their knowledge to others in the unit. Another group went to Denmark for several months and wrote textbooks as part of their course work.

Within the short space of two years, a large number of manuscripts were ready for printing. Some, such as a small handbook on Good Health, were typed on stencils and run off on the hand-operated duplicating machine. Others were printed on the ZANU press in Maputo and two Shona textbooks were printed by a support group in Denmark.

All of the books aim to be relevant to Zimbabwe and its needs and to the experience of the youth. For instance, one of the English language readers, called Buhera Is Free, tells the story of the

liberation of Buhera by the ZANLA forces in September 1978. The story begins:

> "My name is Tarisai Muhondo. I am eleven years old.
> I live in Chitanga kraal, Nyashanu, Buhera District,
> in South East Zimbabwe. I live with my grandfather,
> my father, my mother and my young brother, Rufaro.
> The comrades entered our district in February 1976.
> From the beginning we were very happy to see them ..."

The suggested activities at the end of the story include: "dramatise scenes from the story. Describe the coming of the comrades in your own words. Write your own story about an incident in our war."

The Shona language textbooks are called Svinurai which means "Wake Up". The first page of the primary one book contains the following six words illustrated with drawings: father, mother, children, ball, gun, comrade. The last page shows six weapons that the children have grown used to seeing in the war. On the back cover of each book of the series there is a photograph of one of the young students who was killed in the attack on Chimoio in November 1977.

By the time of independence the Research Unit had completed four Shona books including a handbook for teaching reading to adults; 10 English language readers; textbooks in simple accountancy for cooperatives; the economic geography of Zimbabwe; basic economics for Zimbabwe; English comprehension passages for secondary school; history textbooks for primary and secondary school; science books for primary 1 through to 5.

Teacher Training

Forty-nine teachers graduated from the first teacher training course at Matenje in July 1979. The course which lasted 4½ months included manual work and both education lectures and subject lectures. All of the lectures have been written and edited and may eventually be published as textbooks. Education lectures included philosophy, psychology, administration, methods, education planning and curriculum development. Subject lectures included agriculture, arts and crafts, and geography. More subject lectures were to be prepared for English, Shona, maths, history and science.

After the course work, the teachers did one month of supervised practice teaching in the camps. Several hundred teachers had passed through this programme before the advent of Independence. In addition many attended one and ten day seminars to help them improve their teaching skills and to re-educate them for the new system.

The objectives of the teacher training programme as presented in the 1979 annual report were:

1. to ensure that all our teachers receive a sound foundation in educational philosophy, educational psychology and teaching methods befitting our revolutionary concepts of education so that we can provide a socialist

education to children and adults in our camps immediately. In the long run our aim is to produce a small number of highly trained education cadres capable of transforming the present colonial education system in Zimbabwe into a revolutionary education system;

2. to increase the educational level of our teachers so that they are capable of providing the best education available to our students;

3. to provide training that will integrate agricultural and industrial work with a high academic level.

Similar training and re-education of teachers will be needed in Zimbabwe if the education system is to be transformed. There are presently 11 teacher training colleges for primary teachers and two for secondary teachers as well as the university. These would all have to be re-oriented if a new system is to be introduced. The Research Unit had been working on such plans before Independence.

Election Promises

During the election campaign of January and February 1980, ZANU spelled out its education policy in its Election Manifesto. The Manifesto promised that a ZANU Government would develop a uniform educational system and abolish the distinction between African and European education. It enunciated the following six principles:

1. The abolition of racial education and utilization of the educational system to develop in the young generation a non-racial attitude, a common national identity and common loyalty.

2. The establishment of free and compulsory primary and secondary education for all children regardless of race.

3. The abolition of sex discrimination in the education system.

4. The orientation of the educational system to national goals.

5. The basic right of every adult who had no or little educational opportunity to literacy and adult education.

6. The special role of education as a major instrument for social transformation.

The Manifesto went on to list the following stages of education which the new government would provide: pre-school (children of 3 - 5 years of age), primary, secondary, technical and vocational, teacher training, university and adult education.

Immediately after Independence one of these principles was realised with the passage of a bill in Parliament granting free primary education in all government schools. De facto segregation was also

diminished by the admission of many African students into formerly all white schools. The Ministry of Education's first priority, however, seemed to be reopening schools that had been damaged or closed during the war, thus enabling thousands of children to return to the classroom.

New Beginnings

Despite the historical obstacles to development, some creative innovations are being introduced. While the inherited structures and the Constitution make it impossible to bring about nationwide changes immediately, the Ministry of Education has developed some model schools. These schools, which are located on farms, are based on the refugee schools and are meant to serve as an example to the rest of the country. Eventually the ministry plans to establish one in each province and to promote an exchange between the model Chindunduma schools and the other schools in that area. If they are successful, it is expected that the idea will spread and eventually the ministry can introduce them more widely.

The students and teachers for the first pioneer schools have all come from the refugee camps and will be continuing and perfecting the education system which they developed in Mozambique. They have already begun to implement the policy of self-reliance by building their classrooms and dormitories themselves from local materials. They were joined in this construction project by about thirty members of the Development Aid from People to People support group from Denmark.

The political commissariat, which, we have seen, was historically linked to the ZANU Department of Education and the establishment of the first pilot schools, will be restarting Chitepo College inside Zimbabwe and plans an enrolment of 800 students - 400 from Mozambique and 400 selected from all the provinces of Zimbabwe. The political education they receive will prepare the graduates to continue the task of mental decolonization in independent Zimbabwe.

Just as mobilization of the people was necessary to win their support during the long years of struggle, this same careful preparation is essential to bring about meaningful change now. In the school of the revolution, Zimbabweans have learned that "revolutionary transformation, whether of the school or of the society as a whole, must come from the bottom, from the masses, and cannot be imposed from the top. If changes are made by those in authority without the understanding or participation of the masses, it is all too likely that such changes will be superficial, and therefore easily reversed. Revolution by edict or law cannot survive. Revolution which successfully politicises and organizes the masses cannot be reversed."

WORKER'S EDUCATION

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To build a truly democratic, socialist society in a country requires at least that most of its people should be able to read and write. It also requires that most people should have the knowledge to understand and control production, the economy and class relationships. But colonialist, racist, capitalist societies deny adequate education to the marjority of their citizens. In order to move from such a society to a socialist society controlled by its people, Zimbabwe must give high priority to workers' education. What are the aims of workers' education, and by what methods is it to be achieved? Those are the questions which we must answer, in order to set up an appropriate system of workers' education. The choice of aims and methods is not an academic question, but a political one.

Worker's Education in Industrial Nations

In advanced industrial countries, there is today widespread agreement on the need for workers' education. This corresponds with the trend towards reducing industrial (and class) conflict by providing formalised rules for settling disputes between labour and capital. Such rules take the form of labour legislation and collective agreements, regulating pay and conditions of work. The idea is to prevent conflicts which lead to costly work stoppages, by establishing fixed procedures for bargaining. Such procedures essentially contain two concessions: firstly, the concession by the worker that the capitalists' claim to ownership and final control of the firm is not questioned; secondly, the concession by the employer that the worker is entitled to a living wage and decent living conditions. Collective bargaining within a legal framework can only function if there is an adequate level of worker education, for the workers and their representatives - union officials, shop stewards - must have a full knowledge of the complex rules and procedures, if these are to function. Within this context of agreement on the need for workers' education, employers and unions may well differ on its exact content. Employers emphasize the need to learn rules and procedures, so as to prevent wildcat strikes, and to keep the workforce under control. They would like to use workers' education to turn workers' representatives into a disciplining, or at least a moderating factor for the rest of the workers. Trade unions emphasize the need to know legislation and safety procedures, as well as gaining a basic understanding of the economic background of the industry concerned, so as to obtain a fair deal for workers. But in the conventional view of workers' education both sides seem tacitly to agree on reducing its content to topics directly concerned with the workers' place in a particular firm and industry, and to trade union activities in this context.

Of course, this integrationist view of workers' education has not yet filtered down to many employers in Third World countries, where a colonialist view of the master-servant relationship still prevails. In such countries, the collective bargaining and the form of workers' education of industrialised countries seems very progressive. But it must be realized that this type of relationship is essential to a more sophisticated form of capitalist control, and reflects the so-called moderate position in politics; questioning the prevailing power relationships is considered extremist.

Socialist Worker's Education

But workers' education is not always so restricted in scope. Indeed the demand for workers' education was originally raised by the socialist movement, which developed as a protest against the exploitation and impoverishment of the working class in the period of capitalist industrialisation. Socialists saw the education of workers as the first step towards their liberation from capitalist domination.Workers' education groups were amongst the earliest institutions of the labour movement. In Britain, the Owenite cooperative movement of the 1830's set up "halls of science" for workers. Somewhat later, Chartist meeting halls were used for evening courses, and often had their own libraries. The newspapers and pamphlets of working class organizations did much to stimulate literacy. "Socialist Sunday Schools" were set up to give political education to the young. Common to these institutions was a combination of literacy and basic education with vocational courses, cultural learning and political education. Ruskin College, set up around the turn of the century, was designed to raise the educational level of working-class trade unionists and socialists to rival that of the ruling class. Socialist movements in other European countries and in the USA took a similar interest in education. Indeed "people's high schools" deriving from the labour movement still play a significant role in many European countries.

The concept of workers' education embodied in these attempts was a very broad one. Starting from Wilhelm Liebknecht's dictum that "knowledge is power, and power is knowledge", workers realized that they had to gain access to all fields of knowledge to achieve emancipation. The worker who knew only about industrial relations in his or her own firm would never be able to question the power of the capitalist, for that power is based on control of technology, science, social relationships, political structures and culture. The worker must gain knowledge in all those fields, as part of his economic and political activity. But education must not be seen as coming before or outside of such wider activities, or indeed, as a substitute for them. Rather, worker education is an integral part of class contention. Within class conflicts, workers come to understand the need for learning, and the demand for access to education in turn becomes one aspect of class mobilization. In Zimbabwe, for instance, the struggle against educational discrimination played a large part in mobilizing young people for the Chimurenga. The fight against "Bantu education" played a similar part in the 1976 Soweto uprising.

This broad and political concept of worker education was emphasized by Karl Marx. In his early works, he attacked the division between mental and manual labour as one of the main mechanisms for subjugating the majority of the people. He called for a society in which everyone would be both a manual and a mental worker. The corrolory was a concept of lifelong learning, in which there would be no rigid distinction between worker and student, teacher and learner. In Volume 1 of "Capital", Marx shows how a broadly-based polytechnic education is the precondition for the emancipation of labour - the only way of making workers capable of controlling the economic and technological forces of industrial society. The goal of this polytechnic education is a worker who is not a passive executor of orders, but rather a "totally devloped individual, for whom the different social functions are different modes of activity he takes up in turn." ("Capital", Vol 1, Penguin Edition, p 618). The method for achieving this goal is a new type of learning which is linked with productive work from the age of 9 onwards, and in which all working-class children receive mental education, bodily education and technological training (1866 Resolution of the General Council of the International Workingmen's Association).

From the latter part of the ninteenth century, socialist policies on education split up into two diverging courses, which correspond with the historical split of the labour movement into social-democratic parties, willing to work for a social form of capitalism, and communist parties working for a new form of society. The social democrats called for the development of state education systems, offering compulsory schooling to all. Within these state education systems, they called for better quantitative provision, and formal equality of access. They ignored the impossibility of true equality of access in class societies, and did not fundamentally question the aims and methods of schooling determined by capitalist states. In such a social democratic view of education, worker education becomes an activity connected with understanding formal industrial relations procedures. It is not seen as part of a wider struggle for changing society.

Marxists, on the other hand, realized that the struggle against capitalism could not be carried out simply through more and better capitalist-style education. The Russian Bolsheviks made a radical transformation and reconstruction of the education system one of their first priorities upon gaining state power in 1917. The "unitary work school" based on Marx's concept of polytechnic education was the central feature of the new system. Workers' and peasants' faculties were also set up, to train the large numbers of technicians, administrators and scientists needed for building socialism. Mass literacy campaigns and adult education - which was always political education as well - were designed to raise the cultural level of the workers and peasants, to allow them to take an active part in running the new society. Workers' education, in all its forms, had a key role. And we find the same situation in every country which has had a successful revolution. against capitalism - be it China, Cuba or Nicaragua - broadly based workers' education is a priority, a vital part of the process of building a socialist society.

In Capitalism

As already pointed out, the more enlightened employers see workers' education as a useful means of institutionalising and controlling conflicts at the place of work. In this concept worker education,courses are provided on:

1. Agreements, legal regulations, procedures connected with industrial relations in a particular industry.
2. Techniques necessary for efficient negotiation, such as how to conduct meetings.

Of course, in the situation of a former colony where workers have been denied basic education, even these restricted tasks might have literacy courses and some basic education as their preconditions.

Trade unions and international bodies generally see the aims of workers' education within capitalist countries somewhat more broadly, although not necessarily as part of a struggle against capitalist domination. An example of this view of worker education is to be found in the ILO publication "Workers' Education and its Techniques" (ILO, Geneva, 1976):

> "Workers' education is designed to develop the workers' understanding of 'labour problems' in the broadest sense of those words. Thus it is not an end in itself and should always be regarded as means to social action. In many cases the education will make clear both the need for action and the best forms that action can take. Accordingly it may be directed to usefulness in the workshop, in the works committee, in the trade union, and in local or national affairs. Workers' education programmes should always keep this in mind." (p 10)

This leads to the definition of four major objectives for workers' education:

> "I To improve their students' ability to handle tools of study and of social action through the provision of training in basic skills.
>
> II To arouse and strengthen interest in trade unionism, which is an essential part of the process of making students aware of the basic purposes of workers' education.
>
> III As a natural sequence, to give workers a better understanding of labour problems (including their political, economic and social implications).
>
> IV To equip trade unionists (officers and rank-and-file members) for responsibility". (pp 11-12)

The ILO book divides adult education into 4 components:

1. Basic skills (i.e. literacy, numeracy, running meetings, analysing information, etc.).
2. Technical and vocational training.
3. Social and economic education.
4. Cultural and scientific education. (pp 16ff)

It defines workers' education as part of adult education, and tries to set its priorities within the four components:

A. for a developed country:

1. Basic skills are provided mainly by school system.
2. Technical and vocational training are provided mainly by government and employers.
3. Social and economic education are the main priority for workers' education.
4. Cultural and scientific education - again mainly provided by the school system. (p 23)

B. a developing country:

1. Literacy and basic education are a necessary part of workers' education because of lack of schooling.
2. Trade unions cannot afford to carry out technical and vocational training. They concentrate on training trade union officers.
3. Social and economic education is a priority for workers' education.
4. Workers' education bodies lack the resources for scientific and cultural education. (p 23).

However, the courses outlined in the book make it clear that the overwhelming priority is training trade union officers and shopfloor representatives in trade union principles and industrial relations techniques. There is no attempt to generally mobilize workers to question the goals of the capitalist firm, or the capitalist state. Workers rather learn about procedures and techniques, than about the capitalist system and their place in it, and certainly not about alternatives to this system.

Critical models within capitalism

The labour movement does not everywhere restrict itself to such integrationist strategies of worker's education as outlined above. In some advanced capitalist countries, the efforts of trade unions are concerned not only with improving the quality and scope of workers' education, but also with linking it with the mainstream of state education.

Concepts of regular release from work for participation in educational activities are being developed and implemented. The long-term demand is for "recurrent education", an alternation between working and learning throughout working life. One of the most important achievements in this direction is the "150 hours" in Italy. As a direct result of the class struggles of the early 1970's workers in many Italian industries have secured the right of 150 hours of paid leave from work every year, for educational purposes. The courses are provided partly by the state and partly by workers' organizations, but are by no means confined to themes connected with trade union affairs or collective agreements. Workers have free choice of what they want to learn. The main emphasis is on economic and political education, but if a worker wants to learn to play the harpsicord, he has a right to do so. This may appear esoteric, but is a part of the demand "to give the working class access to culture", which can only be achieved if the workers themselves determine what they want to learn and by what method. (Filippo M. de Sanctis, A vitory by Italian workers: the "150 hours", in Learning and Working, UNESCO, 1979).

C. In Socialist Construction

In a country which has had a successful socialist revolution, workers' education is part of a general reorientation of learning. As President Nyerere has put it, the "purpose of education is not to turn out technicians who can be used as instruments in the expansion of the economy. It is to turn out men and women who have the technical knowledge and ability to expand the economy for the benefit of man in society." (Julius Nyere, Education and Liberation, Development Dialogue, 1974/2). The specific tasks of workers' education are as follows:

1. To make up for deficiencies in basic education resulting from the inadequacy of schooling before the revolution. This requires literacy and basic education programmes centred on the place of work.

2. To reduce workers' dependence on former owners of industry and managers and technicians, who have different class interests. This requires courses to give all workers an understanding of the technical processes and the organization of the enterprise they work in. It also requires vocational and technical training for workers to allow them to take over technical and managerial positions.

3. To help workers understand the role of their enterprise in socialist construction. This requires economic and political education courses for all workers, and specialised courses for workers' representatives, to allow them to participate in economic and political decision-making.

4. To raise workers' cultural level, to help them take an active part in the development of the community. This involves courses linking the people's cultural

tradition to the needs of socialist development.

Obviously, the relative priorities of these different tasks depend on the situation. In a country under great external economic or military pressure, those aspects of training necessary to rapidly raise productivity take precedence. In other situations, political education, designed to reduce the grip of the former ruling class on people's ideas, is the first concern.

Worker's Education in Zimbabwe

The tasks and methods for workers' education depend on two factors: Firstly, the social and economic conditions inherited from the racist-capitalist system of Rhodesia. Because the workers and peasants were largely denied education and vocational training, they are excluded from jobs requiring high levels of qualification. Such posts are typically those which carry high status, material rewards and power. A main task of workers' education in Zimbabwe must therefore be to make up for this deficiency in basic education and vocational training.

Secondly, the political, economic and social goals which are pursued by the people of Zimbabwe. If the aim is a mixed economy with a powerful capitalist sector, this will imply different tasks for workers' education than if the goal is a transition to socialism.

An indication of one view of workers' education is given by the Riddell Commission into Incomes, Prices and Conditions of Service.

Riddell on Workers' Education

The Riddell Report states that: "The evidence presented by both employers and employees was unanimous on the need for workers' education and for this education to take place as soon as possible". (Para 1 117, p 249). The employers tended to see this education as short courses to teach "the basics of committee procedures and also negotiating and bargaining skills, so as to ensure that orderly and efficient meetings are conducted". (Para 1 119). The Zimbabwe Tea Growers' Association, for example, expressed the need for trade union training in this way: "There is a definite need for education in the areas of collective employer/trade union responsibility which would go a long way towards stopping wild cat strikes". (Para 1 122). This integrationist view of workers' education is not fundamentally challenged by trade union evidence to Riddell. This calls for workers' education to improve presentation of cases to tribunals, and generally to assist government's intervention in labour affairs. All in all, both employers and unions take a rather narrow view of the scope of workers' education.

According to the recommendations of the Riddell Report (Para 1 191) control of trade union education is to be through a parastatal Training Authority, with trade union participation. Course content is to be concerned mainly with the formal aspects of running trade union branches, as well as with negotiating procedures and the like.(para 1 201). Participants are to be selected by the Training Authority in consultation with ZCTU, and are to get time off from work for courses. (1 198).

Altogether, the Riddell proposals aim at training workers for smoother negotiating procedures. The model is aimed at moving from the master-servant situation of Rhodesia, to a more modern and enlightened form of mixed economy.

A Broader View of the Tasks of Workers' Education

If the Zimbabwean people want to transform the racist-capitalist system they have received as a legacy from colonialism into a socialist society offering equality and social justices to all, then workers' education must be given a key role. Its scope must be very broad, and the methods used must correspond with the aim of making the workers and peasants the leading force of society. The tasks of workers' education in a strategy for transition in Zimbabwe must be:

1. Providing workers with the basic education and cultural capabilities denied them by the previous system.
2. Providing workers with the vocational training, management knowledge and the social and economic knowledge necessary for workers' participation in management and eventual control of their workplaces.
3. Transforming the workplace through changing the relationship between mental and manual work.
4. Helping to solve the employment problem through new forms of work organization, such as co-operatives.
5. Helping to transform the relationship between town and country, workers and peasants.
6. Achieving immediate improvements in the social conditions of workers and their families by means of child-care and welfare programmes, and involving workers in establishing these.

We will look briefly at each of these tasks.

Workers' Education, Literacy and Basic Education

Literacy, numeracy and basic education are the preconditions for all other programmes designed to raise the cultural, economic, social and political level of the population. Literacy is, of course, not specific to workers' education - it is part of the wider field of adult education. But literacy and basic education courses should be based on the workplace, which provides a suitable organizational focus for learning: workers are together, courses can be during working hours, the collective character provides high motivation. But they must relate to the general realities of workers' lives. Above all, the character of literacy and basic education is not an end in itself, but a step on the way towards greater involvement in control of the workplace, should be clear from the outset. The courses can be carried out using topics and material directly related to workers' interests, e.g. instead of learning to read with a primer, material concerned with trade union

affairs or vocational training, or workers' living and working conditions, can be used. So literacy can be combined with the learning of techniques which workers need to effectively put forward their interests.

Workers' Education and Participation in Control

The next step for workers who have gained basic education, or the first step for those who already have basic education, is the obtaining of knowledge and skills necessary to raise worker participation in control of the workplace. As already pointed out, capitalist control of production is upheld through the employers' monopoly of the technical and management knowledge necessary to run an enterprise. Workers and their representatives need to break this monopoly of knowledge. This requires skill upgrading, teaching of management techniques, instruction in the technology of production, and a general broadening of economic and market knowledge. Such courses should be based on the workplace, and made available first to workers' elected representatives, later to all workers. Such learning processes could not succeed as abstract exercises: they must be related to real increases in worker participation in the control of the workplace and to the demand for this.

Workers' Education and the Relationship between Manual and Mental Work

Employers' control of production is based not only on their own management and technical expertise, but on their ability to pay for the skills of people who have learnt these skills. The prevailing educational system is designed to select a small minority (generally on lines of class and race) to receive highly specialized training. This group are employees, but are highly privileged in comparsion with other wage workers. They tend to be instruments in maintaining capitalist domination. Increasing workers' knowledge of technology and management, and increasing their participation in control of the workplace, challenges the domination of mental workers over manual workers. Indeed it begins to break down the distinction between manual and mental work, with the long-term aim of making every citizen a producer, who both works manually and plans and controls production. The first step on this road is what is called "job enlargement": The ending of the atomisation of the labour process into restricted repetitive functions. As each worker's skill and knowledge is raised in a process of collective workers' education, she or he will be able to carry out broader productive functions, including the quality control and production planning relating to the specific task. It will also become possible for workers to move from task to task in rotation, in order to raise understanding of the whole production process, and this should be a basic demand.

Workers' Education and the Employment Problem

Breaking down the division between mental and manual work is a necessary aim, but it is very much a long-term aim. If workers' education is to be relevant to transforming Zimbabwean society, it must also address itself to more immediate problems. What can workers'

education contribute to alleviating the employment problem? Large numbers of school leavers are unable to find work, while thousands of young people are leaving the rural areas, in the vain hope of finding work in the towns. Workers' education geared to teaching technical and management skills and to increasing workers' control of the workplace - as described above - can indeed make a contribution in this area. Skills and knowledge which increase workers' self-reliance could encourage them to set up producer cooperatives in various sectors. Such cooperatives, led by educated and trained workers, could help to mobilize resources, to increase production and to provide new jobs. The advantages of cooperation, and the principles and methods of the cooperative movement could form an important part of workers' education.

Workers' Education and the Contradiction between Town and Country

Another major problem which Zimbabwe has, in common with many other Third World countries, is the gulf between town and country. For those in the peasant sector - impoverished by racist land legislation - urban work appears highly attractive. Urban incomes are higher, and the social and economic infrastructure is far more developed. Hence the flight from the land, the rural-urban migration, encouraged by inappropriate formal education, which cannot be absorbed by the formal sector. The results are well known: squatter camps, unemployment, disease, criminality. The formal sector has not generally shown itself able to solve this problem even under state sponsorship because of its capital-intensive, labour-saving techniques. And the problem cannot be solved in a democratic society by measures to stop rural-urban movement. Workers' education can and must play a part here. As the Riddell Report points out, more than fifty per cent of Zimbabweans today depend on wage income, rather than self-employment. The significance of wage employment is far higher than it appears if we merely count the number of wage workers. Workers' education must use this predominant role of wage labour in the social structure, to spread the idea of linking the growth of worker participation in the towns with the development of rural industry, and the upgrading of peasant farming. Most urban workers are still not distant from their rural origins. If workers can take a part in restructuring the economy in their own interests, they will make industry serve the needs of rural development. One way of doing this is by using urban industry as the basis for rural cooperatives, which can help to raise living standards on the land, hence reducing the pressure to leave for the towns.

Workers' Education and Welfare

Another immediate task for workers' education in Zimbabwe is that of making a contribution to improving the social conditions of workers and their families. Improving workers' basic education and providing them with skills to increase self-reliance, will help workers to set up self-help schemes in this area. Possible forms for these are thrift and loan schemes, child-care centres and provident funds.Child care will play a particularly important part, particularly in the

case of women workers. In many cases, participation of women in educational activities is only possible if child-care provision is made. Setting up educational programmes and organizing child care must therefore go hand-in-hand. The workers' involvement and participation in these activities become the practical basis of a dynamic theoretical education.

Methods of Worker's Education

The methods suitable for workers' education depend on the aims which are being pursued. If workers' education is designed to raise the efficiency of the company and to reduce conflict - the integrationist approach we have described - then formally structured courses can be used to teach workers about collective agreements procedural rules, negotiating techniques and the like. Such courses can be made more effective by the use of visual aids, audio-visual techniques and methods of participatory learning such as role games. Details of such methods are given in the ILO book referred to above, and in another ILO publication:"How to Improve Workers' Education" (ILO, Geneva, 1976).

But workers' education designed as part of a process of social transformation requires a different approach. Its guiding principles must be:

1. Participation of the workers and the community in working out the aims and forms of courses.
2. Relating the contents of workers' education to the situation of the workplace. This means bringing technical, economic and social aspects of the factory or company into the learning process.
3. In this context, workers' education is a specific form of the linking of education with production. It should be seen as part of a new education system, where the linking of education and production is carried out at every level.
4. The real character of learning situations. This means that workers' education should not rely too much on hypothetical situations, or abstract principles. Learning should always be directly related to action. For instance learning about company structures should be part of the process of increasing worker participation in them. Learning about social problems should be part of the process of taking steps to improve matters, for instance by setting up a child-care centre, and welfare programmes, housing, consumer and producer cooperatives, health improvement schemes and so on.

The implication is that workers' education must become part of a total process of learning and social action, in which the workplace becomes the focus for understanding society, and participating in it. The emphasis in workers' education will hence not be on a formal

certificated absorption of knowledge, but on raising consciousness, on developing solidarity and group cohesiveness, on actively involving workers in the struggle - not as individuals but as a collective. A first step in workers' education, especially where there is a lack of basic education, could be achieved through the method of conscientisation, developed by Paulo Freire, and applied in Brazil, Chile and Guinea-Bissau. The essence of this method is the use of group discussion to make people aware of their social position, and its relationship to culture and education. The understanding of education as either a tool of oppression or a weapon for liberation is central to this method.

The effect of the setting up of such "conscientisation groups" in a factory could be pressure for further education, as an element in the struggle for workers' control. The groups themselves could decide what their learning needs are. The group leader would serve as a resource person in this process, rather than a teacher. Once needs for vocational training, political education, cultural studies, etc., had been formulated within the groups, strategies for establishing the necessary courses could be worked out by the participants in co-operation with unions, educational authorities, the Ministry of Labour and other interested bodies. In this way, workers' education would be an integral and permanent part of the workplace. Workers would alternate between work and learning, which would help to reinforce each other. The long-term effect of such a system of work-related permanent education would be the raising of the cultural and political level of the labour force. This would not only help raise productivity and develop the economy, it would also ensure that such economic development would serve the interests of the people. The emphasis would not just be on quantitative growth, but on growth which led to a qualitative improvement in society and the living conditions of the population.

Education Centres

In the long run, workers' education should be part of the workplace, and should be run and controlled by the workers of that workplace. However, for smaller enterprises, and probably for larger ones too during a transitional period, there is a need for a network of workers' education and cultural centres, to provide staff, materials, ideas and promote activities. Such centres would take the form of resource centres, rather than of schools. The Foundation for Education with Production is at present working out a model for such a workers' education and cultural centre. Its aim would be to send personnel into places of work to start conscious-raising and basic education groups. However, where management was hostile to this aim, such groups might have to take place outside the place of work, in the centre. The centre would also organize and carry out courses of a more specialized nature, such as vocational training, courses for union representatives, higher level activities and welfare and improvement programmes. In such courses, the aim would be to train workers who could then pass on the information they have gained in courses at their places of work and mobilize people for activity. The centre would offer resources

such as audio-visual media and printing facilities to workers' education groups in the area. Its function would be to offer specialized services and put them at the disposal of workplace groups, rather than to take over the functions of those groups.

How can such demands be achieved, in the situation of present-day Zimbabwe? This is above all a political question, not a technical one. Measures taken to raise workers' living standards and to give workers some measure of control of their workplaces are likely to lead to conflicts with employers. These conflicts themselves provide learning situations for the workers involved and make them realize the need for increased knowledge. Hence the processes of social change themselves could provide both the subject matter and the motivation for workers' education. By increasing workers' understanding of the issues, workers' education could help draw people into the struggle for social transformation.

EDUCATION AND ECONOMIC DEVELOPMENT

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The colonial education system in Zimbabwe, like those in most other countries was designed to perform a strictly functional economic purpose. Although this policy was modified somewhat by the role of missionaries in education, this was not allowed to disturb the general direction, which was to deny to the subject peoples the means of acquiring skills which would enable them to threaten the privileged position of the settlers. With growth of the economy, basic literacy and other skills come to be required from even the semi-skilled and unskilled workers in mines and factories. So an education system was devised which communicated such capabilities to a limited number, whilst severely restricting the opportunities for going on to acquire higher level skills and a broader educated outlook. Nevertheless, a minority did reach such levels despite all handicaps, and job restrictions had to be imposed. At the same time the growth of the economy created ever greater demands for higher level skills, so enabling the possessors of them amongst the settler population to bid up their wage rates. As the supply remained inadequate, the necessary skills were to a large extent imported through encouraging further white immigration as occurred soon after the second world war when between 1946 and 1952, a record 64 634 whites immigrated to Southern Rhodesia from the United Kingdom and all over Europe. This resulted in educated blacks being denied access to skilled or semi-skilled jobs in the major economic sectors as well as in the civil service in order to make these available to Europeans. One effective means of keeping blacks out of jobs preserved for whites was through the implementation of an educational policy which was racist and oppressive and so denied Africans access to higher educational training facilities such as were likely to equip them with essential skills. This was evidenced first and foremost in the creation of a dual system of education, one for Europeans and the other for Africans as far back as the advent of colonial rule in this country.

This system was perpetuated throughout the colonial history of our country by successive colonial governments from the B S A Company to the Smith regime. Such an educational system thus led to extreme inequality in both the political and economic spheres. In the former, a franchise based on education income and property ensured that the greater majority of uneducated blacks could exercise no political influence as they had no vote. In the latter case, lack of education, the necessary skills, and government refusal to provide assistance to the rural peasant agricultural and industrial sectors resulted in the creation of a large impoverished black population with a per capita income of just about $30 a year while that of Europeans was a hundred

times more. A detailed discussion of the effects of colonial education and African socio-economic development in this country can be found in R.J. Zvobgo's "Government and Missionary policies on African Secondary Education in Southern Rhodesia 1934 - 1971" (Edin. Univ. Ph.D. Thesis 1980)

The decolonization of Rhodesia into Zimbabwe and the creation of a socialist government means that there is now the possibility of and urgent need to reduce drastically such inequalities, for, as the limited wealth of the country is likely to be an effective constraint for several decades, there is no possibility of giving more than about 5 per cent of the population of whatever colour of skin the standards of living and education previously enjoyed by the whites. With inequalities wider than in almost any other country, it is neither sufficient nor possible to attempt merely to raise the lowest significantly by the restructuring of both the economic and educational systems. The privileged minority will have to realize that rich world standards for a few are bought at the expense and deprivation of the many. Policy-makers will have to resist the arguments that incentives will thereby be destroyed by observing the evidence from both rich and rapidly growing developing countries that inequalities a tenth as wide as in Zimbabwe (or in cases even less) provide sufficient incentives (which indeed evidence suggests depend as much as on relative differences as absolute ones).

It is the intention of this paper to identify and suggest the nature of reform in education that will assist in achieving the kind of socio-economic change a socialist Zimbabwe wishes to promote. To do that we need to start examining in broad terms the relationship between Education and Socio-economic Development.

The Contribution of Education to Development

Orthodox western advice on how to achieve economic development, or more correctly growth, has been located in a general framework denying the need for any radical restructuring of socio-economic relations. As a result it has swung from one fruitless dogma to another as earlier ones failed. Capital investment and industrialisation was once such panacea, then education, now rural development and basic needs satisfaction. All of these are, of course, entirely worthy aims but should be seen as components or consequences of true development, rather than technical devices for achieving growth inside existing political and economic structures. Indeed it is not only in poor countries that reliance on more (or even better) education has disappointed its advocates: radical education reforms in several industrial countries have been emptied of content and co-opted by capitalist political-economic structures rather than generating forces which would transform or threaten those structures. Indeed educationists should be aware that education systems are much more likely to reflect the socio-economic relations in their society than to be allowed to undermine them; forms may often seem to be radical, but this does not prevent reactionary or traditional content from continuing to dominate. We should not therefore exaggerate our importance as educationists. Our role in

transforming society is probably not a leading one because the contribution of education to development is limited and must be seen in relation to other factors such as political, ideological, socio-economic, social and cultural forces. If, for example, our education system is purely foreign or remains so, then it will not address itself adequately to our priorities for development as a developing country, we are also likely to be confronted with the problem of foreign attitudes such a system will impart to our people. These attitudes are, in one way or another, likely to undermine our programmes and policies for development. But we (educationists) remain sufficiently important as having an absolutely vital role to play in the wider socio-economic and political transformation of our society.

One aspect of education's role may be clarified if we investigate the concept of development itself. It is too easily identified with economic growth in money terms. Slightly better, it may be thought of as shifting out-put from primary (agriculture and mining) activities to manufacturing and (later) services. Or it may be thought of in terms of increasing self-reliance: exporting a wider range of goods, producing more of goods including manufactured goods, rather than depending on volatile markets in some commodity, like copper or sugar, with which the country happens to be well-developed. If development is thought of in these terms it merely has the technical function of providing dehumanised production units, suitably trained to service the econonomic machine. Development for socialists must, however, mean first and foremost, development of people from being slaves of their environment or exploiting classes into a situation of human freedom, in which they have the economic security to be able to develop into rounded human beings, making use of a wider range of human capabilities in intellectual, scientific, social and cultural spheres. Marx foresaw human development from the 'realm of necessity striving to escape from the exploitation of capitalism and earlier systems in search of freedom'. If this is our aim, education must not merely provide people with needed technical skills (though it must do this), but it must be regarded as a basic human right, opening the windows of human minds on a universe of achievements and experiences. Perhaps the most important link between education and socio-economic change arises from the fact that education in every country is one of the most important instruments through which to initiate socio-economic and political change as it is in contact with a large number of people at any one time. To that extent developments in education and the policies that determine its growth must be people oriented if education is going to contribute towards the development of society and its economy. The role of education in socio-economic change therefore depends on how educational programmes and policies are related to priorities for development in the economy and in society.

The relationship is somewhat complex as current debate on the relevance of formal education to socio-economic development (particularly in developing countries) seems to suggest. Any suggestion, therefore, that this paper can exhaustively analyse that relationship is misleading. It is, however, the intention of this paper to suggest what educational programmes and policies can contribute to socio-economic change.

Education and Social Change

The prevailing education system in Zimbabwe is still basically a colonial variant of the western formal system. Will it be sufficient to purge the system of its racial and colonial elements, which would leave us with a system designed to sustain a new elite? Western education is in most countries an instrument of social engineering which provides both technical and ideological conditioning for the future, cadres of existing instructions. Young people, even those from the working class, are presented with highly ideological views of industry and other social institutions, as being neutral mechanisms for generating "goods" which "clearly" benefit society as a whole. Concepts such as "efficiency" and the role of profits in measuring it, incentives, "scientific facts" professional and managerial skill, scientific expertise, and techniques such as cost benefit analysis, play a central role in disguising the exploitative social relations with the ethos of capitalism.

At the same time as the supposedly "brighter" (often merely the more conformist) children are taught to identify their personal aspirations with the ethos of capitalism, a larger number of other children have to be filtered out at earlier stages of the education system so as to provide the semi-skilled and unskilled cheaper labour on which the exploitation depends. They have, more or less, subtly to be taught to think of themselves as failures, so that they will not seriously challenge the inequalities of society, just as those who succeed have any surviving tendencies to critical analysis bought off by being paid inflated professional salaries. Both competitive examinations and the mystifying, jargonistic technical language of traditional disciplines play major roles in teaching the majority to acquiesce in relative failure and the minority to see their position as a just reward for merit from a just system.

To a degree, therefore, western education systems are as much designed to fail the majority, to deny them the means of developing a critical appraisal of society and consciousness of their own thwarted potentialities, as they are to train industrial and professional cadres. Even at the cultural level, pretence of challenging the debased commercial culture presented by the media industries usually serves to present non-commercial literature, music or the visual arts as effete trapping of the elite, who in their turn transform what should be universal human consciousness-raising activities into commodities that only they can buy and which serve to confirm their own sense of social superiority.

To determine what sort of education system will suit our own situation and what reforms will meet our needs for develoment we need to ask in the course of our discussion what the purpose of education is. In other words what do we educate for? Is it for purely individual benefit or at national level for self-reliance? What form should it take and why?

Colonial education systems are merely extreme forms of the capitalist pattern, and they are less stable because of the racial ingredient overlying and clarifying the class basis. The opportunity should not be missed of transforming education into a truly democratic pattern before neo-colonial or more regular capitalist ethos are established to legitimise what would be basically a continuation of the old structure purged of the most blatant veneer.

But this could be very difficult, in part because of the reaction produced in oppressed peoples by colonial and racial policy. Because of the much greater inequality, based on deep poverty of the majority, and the consequent greater rewards that have been available to a very small majority, many colonized people, including Zimbabweans, have come to pin all their hopes on achieving high educational qualifications for themselves or at least one of their children. Where highly competitive structures are instituted, people naturally tend to compete on increasingly personal rewards. Rote-learning for personal gain is thus at a premium as compared with either the development of human consciousness or understanding for the social benefit. Although it is much to the credit of so many Zimbabweans that they have remained egalitarian and socialist, too much should not be expected from all individuals whilst so intense a structure of personal incentives remains.

It is in this context that the enormous demand for education from the masses of Zimbabweans could become a major problem if it is not turned into a powerful force for social change that is its potentiality. All too many underdeveloped countries, including an increasing number in Africa, have expanded education, or given way to popular demand for better and longer education without the essential concomitant social and economic changes being instituted. The consequence has been a rapid growth of unemployed school and eventually, university graduates. The reason for this is a simple quantitative one. If the wealth of a country is sufficient to give only about five per cent of the population a western standard of living at the expense of extreme inequalities, then giving even ten per cent of the population an education which leads it to expect to join such an elite is a recipe for both further impoverishment of the other 95 per cent and disappointment for many of the aspirants. But when as in Zimbabwe, a majority of children begin to expect secondary education, then no conceivable economic growth rate could expand job opportunities fast enough in the absence of major social and economic restructuring designed to greatly reduce income disparities. Without such restructuring the country will suffer a double loss! the waste of economic resources on expanded education which could have gone to industrial expansion or better health service (for example) and the frustrations and disappointed expectations of thousands of young people unemployed or performing menial jobs for which they are over qualified and which they probably do unenthusiastically and badly.

The foundations of Zimbabwe's new education system must therefore be firstly outside education in the economic sphere in a restructured production process and in education itself there must be responsiveness

to the developing new structure through an emphasis away from personal advancement (which can only result in disappointment for the majority) towards the skills and attitudes needed to help meet social needs.

Education and Rural Development

Although we have been pessimistic about the ability of education alone to promote economic development, it is nevertheless an essential ingredient, and there can be no doubt that at least six years of primary education for all is the correct policy objective, both on grounds of laying the foundations for a future efficient labour force and on the grounds of meeting a basic human right. At secondary and even more at tertiary level, sights must be set lower in the short run for the reasons given in the previous section. And for the foreseeable future compromises will still have to be made between education's two aims of expanding individual human abilities as a human right and creating the skills needed by society. Education must be related to the economic activities of our society. At present most people are living in rural areas and are dependent on agriculture for their livelihood, and this situation is certain to persist for some decades yet. In these circumstances it would be economic folly and social deception to educate children as if they were going to end in industrial or office work. Most children need an education which will instil in them an idea of the value of rural activities, and the opportunities for improving or transforming them (from individual to co-operative organization, for example, as well as in the technological sense). And this will affect not only the content of education, but also its organization so that practical experience in newer rural techniques may become part of the curriculum. In turn this will require investment in relevant rural industries integrated with agriculture, rather than urban-type industries that have been forcibly dispersed into the countryside.

But a significant minority of workers are employed in manufacturing and mining services and commercial positions and with development, this minority will increase. So appropriate technical skills must be imparted, either in secondary schools or specific training institutions so that we educate people for valuable service and so promote both urban and rural development. If skills currently available to a few could be made available to many through increased technical education and training programmes, it would become possible in the near future to develop much of Zimbabwe's socio-economic position. We would therefore be providing an education system responsive to our urgent needs for development. Education is an expensive enterprise which moreover does not pay dividends soon enough. It is therefore important to ensure that when it finally does pay, the returns are advantageous to both the one who has acquired the education and to society as a whole. A purely academic education does not impart skills for development. Education for education's sake is a luxury for a developing country and encourages elitism and what Dore, R. (1976) described as the "Diploma Disease". We need only refer to the problem of the unemployed school leavers in Africa, India and elsewhere to know that

to perpetuate a purely academic education is to tread in the path of folly.

It becomes imperative therefore that education policy makers make policies and identify programmes that will develop rather that underdevelop the nation. Rural areas in most developing countries have suffered severely as a result of educational programmes that do not cater for their priorities for development while the urban areas with, on the average, no more than 20 per cent of the population, have benefitted from unfair distribution of resources and manpower. Also little industrialisation has been initiated in rural areas despite the fact that rural industrialisation as well as a scientific agricultural approach could have a revolutionary impact on the development of our rural areas and enable the majority of our people to find the fulfilment of individual and/or communal aspirations for material and social advancement, that advancement and development can only be achieved through an education system that creates skills which are applicable in our environment.

It has been argued elsewhere, however, that such an educational policy by itself is not a sufficient answer to our problems of development. So most educationists know educational reforms have been attempted in many countries without producing the expected results in terms of economic development. Various past reports on education reform, notably the 1975 Zambian government report, strongly recommended the introduction of a more vocational oriented curriculum in education for two reasons, among others (a) that such a policy would enhance rural development as school leavers would, by the time of leaving school, have acquired skills that could be applied in programmes of rural uplift and (b) that this would also reduce the ever-growing problem of school leaver unemployment in urban areas as many such leavers could seek employment in rural areas. It needs to be pointed out that while radical reforms in education need to be introduced along these lines such reforms must be accompanied by a policy of vigorous regeneration and the development in rural and urban areas of more productive and rewarding forms of employment and/or self employment. Unless a policy of rural regeneration accompanies curriculum reform, no reform in our educational system will be of much significance in terms of the enhancement of economic development. There will be a continual inflow of school leavers to urban areas leaving rural areas undeveloped.

The aim of education should be to produce a thinking and productive citizen. We cannot hope to build a socialist society if the majority of our people remain inefficient at work and unproductive, neither can we hope in the end to have equal distribution of the country's wealth unless wealth is first produced. Socialism which advocates equal distribution of unproduced wealth is a recipe for poverty and simply is economics of the mad house.

Education for production at both rural and urban level is what we should aim to establish. It is therefore the opinion of this paper that developments in education and the establishment of educational programmes relevant to our development requirements must be closely

linked to a policy of positive urban and rural development and uplift. The majority of our people (some 80 per cent) live in rural areas and unless the education that is provided is related to programmes for rural development, it will not be people oriented and will continue to be largely irrelevant to the achievement of the aspirations of the masses, in terms of material advancement. Our education system will, as it has in the past, continue to be an instrument of oppressing the majority of the people and encouraging the continuation of the formation of an elite class comprising of a few people.

Education and Social Policy

As already stated education can be a powerful instrument for bringing about social change - powerful because it is an effective means through which to inclucate in society new values, attitudes and beliefs. Successive colonial governments in this country succeeded to a very large extent in maintaining a divided society through a policy of racial segragation in education. They also succeeded to a very large extent in repressing African social advancement by providing Africans with limited access to higher levels of education and training and thereby ensured that they occupied low positions in industry and commerce and therefore got very low wages. Also the education system itself reinforced in Africans the idea that there were as a society inferior to Europeans and this black 'inferiority' was used to justify white domination in this country. It seems therefore a matter of common sense that one of the primary objectives of education reform must be social transformation and the creation of an egalitarian society in line with the policies and socialist aims of our government. This cannot be achieved by merely providing equal education opportunities for all (though that is important). Part of the solution lies in the treatment of education as an ideological mechanism through which to promote social change in particular curriculum planning and implementation in the process of social re-orientation. The curriculum must be the vehicle through which to promote and introduce new socialist values, attitudes and egalitarian thinking.

There are obviously several constraints in the development of an education system that will promote rapid socio-economic development for the masses. Financial limitations is one constraint. Opposition from the privileged and elite class to any programmes that are likely to benefit the masses and threaten their own position often manifests itself in covert acts of sabotage of revolutionary policies by the masses themselves. It is important that both government and the people must have a correct ideological perspective to direct their policies, to identify correct methods of implementing these, as well as develop the political will and conviction to carry them through. Only such an approach will promote the role of education in socio-economic development and help build a new Zimbabwe.

EDUCATION IN CUBA

Ever since the triumph of the Revolution in Cuba (January 1, 1959), education has been one of the main tasks undertaken in the process of social development. Before the victory of the revolution, the educational situation in Cuba reflected the prevailing neo-colonialist system which increasingly aggravated the existing economic underdevelopment and, therefore, its logical sequels in the social sphere: unemployment, malnutrition, child mortality, illiteracy, under-schooling of the population and so on.

The following data, taken from the Main Report to the First Congress of the Communist Party of Cuba may provide a general idea of the critical situation of education before the triumph of the revolution.

> "In 1953, 23,6 per cent of the population over 10 years of age was illiterate. Only 55,6 per cent of the children between 6 and 14 years were enrolled in school. One million and a half inhabitants over 6 years of age had not completed any grade. The percentage of unenrolled children aged 7, 8 and 9 was 52 per cent, 43,7 per cent and 37,6 per cent respectively. Only 17 per cent of the youths between 15 and 19 years received some kind of education. The average school level of the population over 15 years was below third grade.
>
> Five years later, in 1958, these four figures reflected the deplorable state of education:
> - a million absolute illiterates
> - more than a million semi-illiterate persons
> - 600 thousand children without school
> - ten thousand jobless teachers".

The revolution changed the existing social picture; all the injustice which characterized the neo-colonialist, pro-imperialist regime was abolished and with it unemployment, racial discrimination, begging and prostitution disappeared. Numerous measures were undertaken in favour of the poorest sectors of the population, and special attention was given to the task of improving the very bad state of education and public health. Some of the most important transformations implemented in education were:

- the nationalization and gratuitizing of education;
- the extension of educational services to every corner of the country;
- the historic Literacy Campaign, a process performed by our people who taught 707 000 adults to read and write in a year's time;
- the development of adult education, which was a decisive

factor in raising the schooling level of the people and in promoting economic development;
- the strengthening of the technical and professional education ;
- creating of special schools for the physically or mentally handicapped pupils;
- the profound changes in the system of higher education started in 1962, when the University Reform was introduced;
- administrative changes in the structure of the Ministry of Education;
- the establishment of a single network of teacher-training centres;
- the creation of the Basic Secondary Schools in the countryside and the generalization of the principle of combining study and work to be applied throughout the National Educational System.

Henceforth follows a brief account of the Cuban experience in applying the work study principle, which is one of the distinctive features of the revolutionary development of the Cuban educational system.

Historical Background

The application of the principle of combining study with work in the schools of the National Educational System in Cuba is the result of a long and complex historical process, which culminated in 1959 with the liberating revolution.

The trend of development of the progressive pedagogical thinking of the 19th century had its highest exponent in the most universal and revolutionary thinker of the time, our national hero, Jose Marti.

Marti propounded the necessity of blotting out the divorce existing in education between theory and practice, study and work, intellectual and manual work, and defended the merging of these activities in educational work in school. Quotations from Marti's extensive literary legacy show clearly his ideas on the subject:

> "A grave mistake is being made in America: the people who live almost completely on what the soil produces are educated exclusively for city life and are not prepared for the life in rural areas."
>
> "Physical, mental and moral advantages are derived from manual work."
>
> "Man grows with the work that he does with his hands ..."
>
> " ... and there must be an agricultural workshop behind every school, open to rain and sun, where every student shall plant a tree, for the fruit of life never, never springs from dry, linear texts ..."

"We ought not to say schools, but workshops, and the children should wield the pen in their hands in the afternoon in the schools, but in the morning they should wield the hoe ..."

During the pseudo-republic (1902-1959) Cuban education had to suffer the persistence of the scholastic and metaphysical tradition, as well as the surge of educational conceptions and practices derived from the positivist and pragmatist trends which did not basically change the education given to the generations of the time. It is only after the revolution that Marti's ideas about education acquire their full significance. The connection of these with the conception of polytechnical education postulated by Karl Marx and developed by V.I. Lenin (still being studied by the academics of sciences and institutes of scientific research of the socialist community), has laid the foundation for the work study principle and for the work of socialist pedagogy in Cuba.

Ever since 1959, the Commander in Chief Fidel Castro Ruz, now President of the State Council, has been the main initiator and promoter of the implementation of this Marxist and Martian principle. The following fragments chronologically listed are taken from his political statements:

"The thing is not just teaching to read and to write, but also teaching to work and to serve others. Have them learn while studying and working, so they understand. Some people never in their life have sweated with toil, so they cannot understand the reaility overnight." (21.6.1959)

"We are on our way to transforming the methods of teaching linking production with education. Thus, already this year the students of the technological schools and institutes will have a few work hours every day to produce parts for transport machinery, for industries, for agriculture." (16.1.62)

"In the future we shall have to complement the studies with work, but this work will form part of the teaching." (22.2.62)

"You are not going to acquire just technical knowledge, you will acquire the widest possible culture. You are not going just to study, you will work, because the school schedule includes three daily hours of work, three hours of physical work. What with? Maybe even with hoes; in this case your work will have a pedagogical goal rather than a productive one. What for? So that you can learn the meaning of work, if you are going to be technicians, and if you are to have certain responsibilities in the future it is very convenient and very necessary for you to know what work is like. The difficulties faced by people working in research centres, either in the existing ones and in the experiments in progress, or in those you yourselves will conduct in the future." (+.2.64.)

"Work is to be the great teacher of youth." (2.12.64)

This last sentence characterizes the Cuban educational system in which study and work are closely united, joining two important objectives of education: a formation goal, and productive and social one.

The formative objective seeks to develop the human condition of the worker with a conscience of the producer of social goods, to eliminate the prejudices derived from the division between intellectual and manual work; to eradicate the intellectualised scholastic character of education and to promote interest in the search for knowledge of the surrounding world.

The economic goal is to incorporate the labour force of hundreds of thousands of students into production and social work. The linking of study and work is organized in various pedagogical modalities, adapted to the type and level of education, according to age, sex, individual conditions and concrete possibilities of each place. The principal pedagogical modalities of the application of the educational principle of combining study and work are, among others, the following:

- workshop education by means of simple tasks in the day-care centre, and as a subject in primary and secondary schools;
- mechanical drawing as a subject in basic secondary school;
- fundamentals of contemporary production as a subject in higher secondary school;
- socially useful work in and out of the school;
- productive work or services linked to the learning process done in workshops either in the schools or attached to industrial plants;
- pre-professional and productive practice, which includes teaching practice;
- the scientific research practice in state centres.

The principle of linking study and work has undergone a process of maturation and consolidation both from the theoretical and the practical point of view, from 1959 up to the present day, as experience in its application accumulated. This process, which included the consolidation of the social conscience of teachers, parents, students and the people in general, is marked by a number of measures that constitute the concrete experience of Cuba in the implementation of the principle throughout the National System of Education.

Among the steps taken in theory and practice, there are the following:

- at the beginning of the revolution the children in the so-called Children's Farms fulfilled activities which combined work with study;
- the boarder students were mobilized for the coffee harvest in the mountain regions of the eastern provinces;

- the rural basic secondary schools fulfilled agricultural tasks, and the students of the technological-industrial schools and institutes produced spare parts for transport and agricultural machinery and industrial plants;
- the children and adolescents who study at the special schools for the handicapped are incorporated to production in carpentry, pasteboard and printing shops; a special school of crafts (the "Sierra Maestra") was also created;
- Ministerial Resolution No. 392 of 1964 established the theoretical bases for the application of the polytechnical principle in general education;
- a seminar for the unity of the National System of Education, held in 1965, was a serious and important attempt - although somewhat limited as to quality - of a theoretical and methodological approach to the combination of work and study;
- the INRA-MINED* programme which resulted from the Seminar for the Unity of the National System of Education helped the leaders, officials and teaching personnel in general, become aware of the problems of economy, production and teaching.

Thus the teaching personnel was prepared for the "School goes to the countryside" plan in the collective farms of the former province of Camaguey, which included 22 000 students, teachers and workers. In 1967 this measure was generalized for the whole system of secondary education, including 150 000 students throughout the country.

The INRA-MINED Programme and the experiences obtained in the "School Goes to the Countryside" pilot plan, served as a basis for the creation of the "Santa Amelia" and "Martires de Kent" schools where the students were to combine study and work systematically in agricultural developmental projects.

In 1971 at the inauguration of the "Ernesto Che Guevara" Basic Secondary School in the Countryside, one of the new type schools in the project known as "Plan Ceiba", Commander in Chief Fidel Castro defined the aims of these schools as follows: "This school reflects pedagogic conceptions; this school responds to realities and necessities. Pedagogically, it responds to conceptions that are consistent with the most profound ideas of Marxist thought, which sees education, the formation of man, as linked to productive work, and to creative work; it agrees with Marti's thought, which also conceived a school of this type ..." "And this type of school responds to the real possibility of forming man: the possibility of combining education, study and work."

This is not exactly a specialized school yet. Here, young people do not specialize in agriculture. This is a school where the pupils

* INRA - National Institute for Agrarian Reform: MINED - Ministry of Education

start to carry out productive tasks, to create material goods with their own hands, to do manual work besides intellectual work. This means that the pupils begin to learn and understand how the material goods that man needs are produced; here they start to acquire work habits as the most elementary and natural duty of every citizen, along with study habits.

The National Congress of Education and Culture held in 1971, laid the foundations for the perspective educational policy in our country. In the same year the study-work principle was applied throughout most of higher education.

The theoretical work in the educational field was completed in the 1972-1973 school year with the study of the scientific prognosis of the development of the National System of Education, which served as the foundation for its improvement, starting from the 1974-1975 school year until the 1980-1981 course. This changed radically the content and the structure of the system.

Combining Study and Work

The combination of study and work in the Subsystem of the General Polytechnical and Labour Education is organized by means of:

- the dynamic linking of the theoretical-practical activities in the subjects of the curriculum;
- workshop education, mechanical drawing and fundamentals of contemporary production, which have a polytechnical and labour bias on this level;
- productive and socially useful work in all its varieties:

  school gardens, the "school goes to the countryside" and the "school in the countryside".

The social function of this type of education determines the training of skilled workers and mid-level technicians, as well as the raising of their technical qualification according to the needs of skilled manpower for the development of the national economy. It also guarantees the correspondence between vocational training and the achievements of the scientific-technical revolution as well as the attainment of high ideological and political level, as corresponds to the role the workers as a class play in the new society.

The organization of the study-work system in the technical and vocational education takes two forms:

- practical teaching (in the school workshops);
- incorporation in work centres.

In the process of educating the skilled workers, about 60 per cent of the time is allotted to practical teaching and productive work, because these are the principal activities of this level, which guarantee

their preparation. In the process of teaching mid-level technicians, only 30 percent of the time is devoted to the practical classes and productive work.

The combination of study and work in the Subsystem of Special Education

The principal aim of special education consists in preparing the physically and mentally handicapped for social and work life. Therefore, study-work activities are directed towards the labour training of the pupils in centres of industrial production, in agriculture or in the sphere of services:

- all pupils over the age of 12, having sufficient physical and mental capacities participate in these activities, provided that the work centre is located in the neighbourhood of the school;
- considering the deficient capacities of the pupils, as well as the possibilities of the centres of production, the pupils must be incorporated in the following types of production:

  agricultural, construction, textile manufacturing, metallurgy, as well as in service centres;

- the pupils of the basic secondary schools for handicapped participate in the "School goes to the countryside" Programme during the period scheduled for these activities.

Teaching practice as a form of application of the study-work principle in the teacher training centres

Teaching practice represents an important link in the professional preparation of the pedagogical school students. It acquaints them with the characteristics and responsibilities inherent to their future profession, widens and consolidates the knowledge acquired through the subjects directly related to their future work, and provides them with the skills required for planning his work and so on. The teaching practice includes visiting classes and doing other teaching activities in the annex primary school.

The Programme for the Improvement of this Subsystem presents a new concept of the role of the teaching practice carried out by the students of higher pedagogical institutes. The requirements of the preprofessional practice are raised; the prospective teacher is trained systematically by means of a number of related activities from the first year until he graduates.

General methodological considerations concerning the application of the study-work principle

With regard to the general methodological aspects of the application of this principle we must consider certain psychological and pedagogical views which influence the students' education.

One of the most important issues brought to the attention of our teachers is the practical application of the knowledge acquired by the pupils. Our curricula and syllabuses reflect this concept, since our education requires the coordinated and consciously oriented work of all the teaching personnel, aimed at the application of the pedagogical principles which help to systematically establish the links between knowledge and work.

The preliminary preparation for the subsequent of the acquired knowledge in work must begin with the formation of scientific concepts. Special emphasis must be laid on how the facts and phenomena arising in the teaching-learning process prove the fulfilment of the laws that govern these facts and phenomena.

Students' teaching practice corresponds not only to the student's physical and psychological capabilities, but must also offer some mental stimulation. It must not represent a psychological strain for the children. Fertilizing, tilling, watering, harvesting, etc., do not require mental strain; nevertheless, when we set the aim of raising production in the harvesting of potatoes, for instance, the children must apply their agrotechnical knowledge and the most advanced agricultural technique.

In order to be educative, work has to bring some satisfaction to the children, and this is achieved through well-defined objectives. The pupils must always realize the social value of their work and how adults evaluate it.

When the work starts the teachers must emphasize the fact that all work requires some effort, both individual and collective.

Along with these objectives and in accordance with them, it is necessary to pay special attention to the development of a strong emulation movement in order to stimulate the students having the best results in their productive work.

At present the combination of study and work, aside frrom its pedagogical aspect, includes the political and economic factors, comprising essential features which must be submitted to detailed research in order to improve them.

The results obtained through the application of the principle of linking study and work

One of the most important results of the application of the principle of linking study and work is the fact that all the sutdents who have reached secondary level have had the opportunity to study. The schools in the countryside have played a decisive role in this. When analysing the possibility for sixth graders to continue studying - taking into account their future numbers - Commander in Chief Fidel Castro said on January 7, 1971, at the inauguration of a school in the countryside:

> "In the present situation, we have no choice. We cannot limit the education because of limiting economic factors. What shall we do with the children and young people of the

country? Shall we let 50 or 60 per cent of them go without studying? Shall we educate only 30 or 40 per cent and leave the rest illiterate? Are such solutions conceivable in the world of today? Can we fail to teach even a single child in ths country? From the humane point of view it would be discriminatory; from the humane point of view it would be extremely painful, as well as from the social point of view; from the point of view of the economy it would be absurd, when we think about the country's future. It is impossible from the point of view of the world of the future.

"Then how shall we solve these problems, in view of our material limitations and the need of providing education, of teaching all the children and youths of the country? We could not possibly go on increasing the number of these centres without linking the universal educational curriculum with productive activities. So, besides being a basic pedagogical principle, besides being a social and human necessity - if we want to achieve a general education, not being a rich country - it is a necessity for the development of our country to link these generations, these millions of young people, as they reach a given age, to the productive activities in secondary school, and in higher education.

"We have aimed at universal education and the universalisation of education, including that of higher education. But this involves a fundamental requirement: the habit and the basic duty of all society from a given age on, of participating in production, without creating a separation between manual and intellectual work. We cannot create a kind of technician, a kind of specialist, a kind of citizen who despises manual work, because there will always be manual and intellectual work in society. We do not want one group of people to be the pariahs of manual work and another to suffer from doing exclusively intellectual work and never have a chance of performing some kind of manual work, because if we analyze the situation, that man who only has to perform intellectual work will be an unnatural person too, because manual work forms part, let us say, of an almost biological necessity of man."

Indeed, without a consistent application of the study-work principle our country would not have at present more than 1 500 centres built after 1970, which constitute an extended network of educational institutions of all types: schools in the countryside; technical and vocational schools; teachers' training schools; day-care teacher-training schools; half-boarding primary schools, and the like with a total enrolment of 3 290 552 at various levels and types of centres, higher education included.

These achievements are possible only through the generalization of work in all the National System of Education, as an irreplaceable

activity in the formation of the new generations and as a need to have everyone contribute to the social development of the country according to his possibilities, by means of the economic yields of his productive work.

From other points of view, there are important results too: from the school point of view, a better upbringing of the children and youths is achieved through their living in a community of workers and getting ready to be useful to it from an early age, and through their being able to feel that they are part of the forces which contribute to the country's development.

From the ethical point of view, young people gradually acquire a will-power and a firm character as they face difficulties while serving society; from the educational point of view, a contribution is made to the achievement of the multilateral development of the citizens, which represents one of the principal aims of socialist pedagogy. As for the school as an institution, formalism and intellectualism have been annihilated by the close links established between school and life, by a better preparation of the pupils for life in the society in which they are to live and work.

From what has been said, it might be supposed that the application of the study-work principle is solved. But our experience tells us that this is not so. We have made progress but we still face problems, just as we did when we started to introduce and generalize the principle; now there are aspects which must be improved and adapted to the dynamic changes which have taken place during the revolutionary process in our country. In short, there are always the problems related to the safety and hygiene of the labour process, sanitary problems, pedagogic, economic and social problems which dialectically create new situations to be solved, and that imply higher stages in the application of the study-work principle.

AGRICULTURAL EDUCATION IN YUGOSLAVIA

The reform of the educational system in Yugoslavia was initiated in 1975. The reform of preschool, elementary and secondary vocationally guided education has now been completed, but the reform of university education is still in progress.

Eight-year elementary education is compulsory and free of charge, providing textbooks, free transportation and nutrition.

Secondary education has been reformed into secondary vocationally guided education divided in two stages. The first two-year stage is basically of an overall educational nature with a slight vocational orientation in some republics and provinces. The second vocationally and professionally guided stage lasts one or two years depending on the complexity of the respective vocation. The secondary vocationally guided education determines five grades of professional qualifications. The first and second grade of professional qualification enable the pupil to perform the less complex tasks. These grades are acquired either after the elementary school or during the first stage of the secondary vocationally guided education, supplemented by some specific teaching programmes. The third and fourth grades of professional qualification, the duration of which is one or two years, enable the pupil to perform more complex tasks and are acquired after the completed first stage. The fifth specialist grade is acquired, as a rule, after the completed fourth grade and mastery of special programmes following at least two years of practical training.

All aspects of education have been constituted with the aim of qualifying the pupils for work and further education. The whole system is based on permanent education for all workers.

All the republics and provinces have some common porgramme characteristics, although there are certain differences in curriculums and teaching programmes among them due to the nature of their economies and the achieved stage of development.

The reform of secondary education, i.e. the constituted system of the secondary vocationally guided education, determines the foundation for vocational education of agricultural specialists from the first to the fifth grade of professional qualification. New professional qualifications have been thus determined and appropriate curriculums adopted, together with educational programmes for acquiring the third and fourth grade of professional qualification. Adequate standards for school premises, equipment, teaching aids, teaching staff, etc. have been set. Curriculums and teaching programmes for the first and second grade have been also prepared. After the concept of the fifth grade of professional qualification was adopted, curriculums and teaching programmes for this form of education were formed.

Besides planning, the nomenclature and classification of respective vocations are also important for the constitution of this educational system. Determination of the nomenclature and classification of the respective vocations after the adequate jobs and tasks, conditions and work requirements are defined.

Vocations within the Agricultural Profession

(a) The first and second grade of professional qualification:

1. dairyman
2. engrafter
3. cattle fattener
4. milk purchasing worker
5. seedsman
6. vegetable grower/nurseryman
7. seedsman/nurseryman
8. hotbed operator
9. agricultural machines maintenance operator

(b) The third grade of professional qualification:

1. cattle breeder
2. pig breeder
3. poultry breeder
4. tractor operator/tiller of ground
5. agricultural mechanician
6. nurseryman (fruit and vineyards)
7. breeder of agricultural crops in the mountain areas
8. tobacco processing operator
9. cattle feed processing operator

(c) The fourth grade of professional qualification:

1. cattle breeder/technician
2. cultivator of soil technician
3. technician for horticulture
4. technician for agroeconomy
5. fruit-grower/technician
6. agricultural mechanical technician
7. agricultural technician
8. fruit and vineyard grower/technician
9. vineyard grower/technician
10. technician for mountain areas farming
11. technician for plant and foodstuffs protection
12. technician for tobacco growing and processing

It should also be pointed out that agricultural education was established in our country more than a century ago. Agricultural schools have developed into highly organized institutions with very competent teaching staff and modern equipment. These schools have contributed significantly to the education of agricultural specialists.

Further development of agriculture and agricultural complexes is one of the most important and vital issues in the overall development process of our country. Production of the socially required quantities of quality food is a long-term necessity and at the same time a precondition for raising the level of the standard of living of the population which is becoming increasingly non-agricultural. The production, turnover and consumption of agricultural products and foodstuffs are considered as the most crucial problems facing the national economies of the industrially developed nations and developing countries on the one hand, and in international economic and political relations on the other.

The promotion of agricultural production, i.e. high and economical yields, continuously pose new requirements for education and professional qualification of farmers and workers in agricultural production. However, the age structure of the rural population is becoming increasingly unfavourable, mainly as a result of the migration of young people towards urban areas. Apart from this, there is still about 30 per cent of illiterate adults among agricultural producers. Contributing to all these factors is the lack of the organized forms of education of farmers and agricultural workers so that there does not exist the vocational category of "qualified agricultural producer".

The associated labour is increasingly interested in the education of farmers as qualified agricultural producers, particularly from the socio-economic aspect and that of the systematic measures for the promotion of agriculture. Such education guarantees the increment of the agricultural production in relation to its present rate of growth.

The current and the expected development plan of the SFR of Yugoslavia until 1985 lay particular emphasis on agriculture and the increment of the GNP, the stability of the economy and the rise of the standard of living. The plan does not encompass only the socially-owned agricultural sector, which comprises about 15 per cent of the total agricultural output, but the individual agricultural producers - contract farmers as well.

It is necessary to secure permanent and efficient education of all levels of farmers and agricultural workers. Only by achieving the higher level of technological know-how is it possible to increase the production of food, change the production relations in agriculture and complete the socialist transformation of rural areas.

The farmers could be motivated for education by the opportunities for associating their labour, land and resources with the cooperative farms and by participating in the acquisition and distribution of income. The possibilities of participating in the highly organized and specialized production (such as engrafting, production of seed, milk, meat, grapes, etc.) require permanent and organized education.

The education of farmers, cooperating members and agricultural workers should bring about the following:

- a more professional approach to agricultural production and higher yields and incomes with reduced production costs;
- mastery over the basics of economy and self-management, achieving a more equal status for workers, i.e. associated farmers or cooperating members in the conducting of production policy and participation in the acquisition and distribution of income in their respective organizations.

All this will ensure that a greater number of young people stay at their parents' farms, reducing the number of those who seek other work. It is necessary that all young farmers acquire the first and second grade of professional qualification and that all other young people educated by regular school curriculums acquire the third grade.

Supplementary Programmes for Agricultural Education in Elementary Schools

After the reform of the educational system in elementary schools had been carried out, supplementary programmes were introduced in the seventh and eighth grades. These programmes were created for satisfying the needs and interests of a certain limited strata of the population, covering varied fields such as agriculture, tourism, transportation, protection and promotion of the human environment, etc. Elementary schools in rural areas introduced agriculture in their curriculums. The programme satisfied the needs of the rural area population, i.e. "immediate agricultural producers". The implementation of the theoretical and practical instruction is being carried out quite satisfactorily. For example, in the Socialist Republic of Serbia alone, 53 communes have provided from 1 to 3 hectares for the practical instruction of the trainees. They have even established cooperative relations with the farming cooperatives. The cooperatives provide seeds, fertilizers and mechanisation while the income is distributed through pupils' cooperatives. However, the gravest problem facing the elementary schools is the purchasing of adequate mechanisation as the regular school budget cannot cover such expenses.

The present trend is to introduce agricultural education from the fifth class onwards and to enable the pupils to acquire the basic professional knowledge in agriculture by mastering special programmes. The pupils who do not wish to continue their schooling after the elementary school have the opportunity of mastering certain programmes of professional education in agriculture and acquiring the first and second grade of professional qualifications for the following vocations: dairyman, engrafter, cattle fattener, seedsman, etc.

The first grade professional qualification could also be acquired by adults who have not completed elementary school. These persons are instructed in the so-called functional programme of agricultural education. The second option for those who have not completed their

elementary education is to master a special programme by attending approximately 400 theoretical and practical lessons. The instruction is organized by elementary schools, agricultural schools or educational centres in cooperation with the organizations of associated labour or professional organizations.

Education of Youth for Agricultural Professions in the Regular Educational System

After completing elementary school, the pupils who intend to qualify as agricultural specialists attend secondary schools. Secondary schools are constituted as agricultural educational centres or general educational centres educating trainees in agriculture as well. For example, prior to the educational reform there were 12 agricultural schools in Serbia, some of which were founded more than a hundred years ago. After the reform the number of schools offering agricultural education significantly increased.

The trainees acquire the third and fourth grade of professional qualification in secondary schools. The third grade is acquired after attending one-year courses following the completed two grades of the general educational base in the vocationally guided secondary schools. Regular trainees attend 960 theoretical and practical classes, five weeks of professional practical training in the organizations of associated labour and approximately six months of the so-called educational practical training. They thus qualify for the following vocations: cattle breeder, pig breeder, poultry breeder, tractor operator/tiller of ground, agricultural mechanician, nurseryman, fruit and vineyard grower, breeder of agricultural crops, tobacco grower, cattle feed processing operator, etc.

The fourth grade of professional qualification is acquired during the two-year course. Regular trainees attend 2 100 theoretical and practical lessons, seven weeks of professional practical training and 6 to 12 months of the educational practical training in the organizations of associated labour regarded as the internship period. The trainees thus acquire the necessary knowledge for performing the tasks of the following vocations: cattle breeder/technician, cultivator of soil/technician, technician for horticulture, fruit-growing/technician, agricultural mechanical technician, vineyard grower/technician, foodstuffs technician, etc. After the educational reform the fourth grade also qualifies the trainees for some new vocations such as: technician for agroeconomy, technician for plant and foodstuffs protection and technician for tobacco growing and processing.

All agricultural schools have their own farms ranging from 80 to 100 hectares. Due to the specific nature of agricultural education, the practical training is for the most part carried out on the school farms and partly in the organizations of associated labour. Agricultural schools cooperate successfully with the organizations of associated labour in the drafting of educational programmes. The results of such cooperation are particularly evident in the organization of professional practical training.

The agricultural schools acquire their financial resources through practical training and the productive labour of the trainees. The income is usually spent on the raising of the trainees' standard of living (nutrition, excursions, sponsorship to youth organizations, etc.). The resources are also used for updating the school equipment and teaching aids. The trainees themselves decide upon the distribution of income gained through their own labour.

A lack of interest in agricultural professions has been noticeable over the years and as a result some agricultural schools were abolished. However, during the past two years increased interest in agricultural vocations has become evident and the percentage of the trainees qualifying for agricultural professions is increasing.

Education of Agricultural Producers - Contract Farmers and Workers in the Socially-Owned Sector

It is evident that when mechanisation, the use of chemical fertilizers and socio-economic self-managing relations were at a lower level, the education of farmers was more developed. During that period, junior agricultural schools played a prominent role in the education of farmers who usually became good producers and respectable rural landlords.

During the fifties considerable efforts were made to establish the winter agricultural schools. These schools were stipulated by the law and several hundred were founded over a period of six to seven years, enrolling several thousand students. Nevertheless, these schools were not constituted within the educational system and accordingly not financed as regular schools. The students did not receive any socially recognizable qualification upon completing their schooling. This led to the abolition of these schools. After the abolition of the winter agricultural schools, farmers were educated at special courses and seminars which were held between the farming seasons and whose programmes were not unified and did not qualify them as agricultural producers. The courses and seminars were mainly of an informative nature and acquainted farmers with the technological achievements of the period.

However, considering the importance of agricultural production in the development of our country, the education of farmers is receiving permanent attention. The reform of the educational system determined professional qualifications, adequate curriculums and teaching programmes, and elaborated the forms and methods of agricultural education.

The education of farmers and agricultural workers is carried out within the framework of the regular educational system and through other aspects of labour. Both methods are characterized by specific tasks and adequate programme contents form a unique system that will create a producer of agricultural goods capable of associating his labour with agriculture and of acquiring the income necessary for reproduction and the requested rate of accumulation.

In the regular educational system, farmers can acquire the first, second, third and fourth grade of professional qualification.

Agricultural organizations of associated labour which plan the education of their workers usually educate them for the third and fourth grade of professional qualification. In this way the workers qualify for the performance of more complex tasks, handling of the modern technology and the use of more up-to-date means of production. Individual producers usually apply for the first and second grade of professional qualification.

The teaching plans and programmes for the first and second grade of professional qualification cover the following: general professional subjects, specialized professional subjects and practical training. The basics of self-managing socialism is the subject which is included in the curriculums and teaching programmes for all professions and vocations.

Adults acquire the first and second grade of professional qualification through various aspects of education. Each year, during the winter period, special educational courses are organized for farmers in cooperatives as well as for workers who are willing to master the curriculum for acquiring the first and/or the second grade of professional qualification. Such organization of education enables the attendants to attain the basic level of professional knowledge and skills necessary for individual performance of all simple tasks and operations in agriculture. These skills enable the farmers to associate their labour with the socially-owned agricultural farms through the technological production line.

The initiators and organizers of these courses are the organizations of associated labour and cooperatives. The agricultural schools and educational centres together with professional and scientific institutions implement the educational process. These institutions have adequate, up-to-date equipment, knowledge and the necessary scientific and technological bases for agricultural production, as well as competent professional staff. The teaching process is modern, appealing and practical. The exercises involve the students themselves and thus create the necessity for further self education.

The trainees or adults who completed elementary school or who interrupted their schooling during the first stage of the vocationally guided education, as well as the trainees who completed the first stage, can apply for the second grade of professional qualification. The curriculum covers 600 theoretical and practical lessons for less complex professions, such as: vegetable grower/nurseryman, seedsman/nurseryman, hotbed operator, agricultural machines' maintenance operator,etc.

In organizing education during the work process, previously acquired skills are taken into consideration, regardless of whether they were acquired in the organized production process or in the individual work process. As agricultural education is organized for those who already work and who have considerable practical experience in agriculture, this advantage is used in the organization of the educational process.

The most suitable period for instruction is during the winter, particularly as older farmers can also attend the lectures.

The lectures are delivered in an intensive course and adapted to the previous experience of the students. After the cycle of lectures is completed, the students sit for their examination. The adaptation of the programme does not imply that it is less complex but rather that it is suited to the available time and work conditions of the farmer students.

Besides school education, other forms of acquiring new skills and knowledge are initiated, such as seminars lasting from 5 to 15 days, popular professional lectures, issuing of publications, etc. The seminars usually cover topics concerning current technological achievements and socio-economic and work organizational issues.

The organizations of associated labour finance the education from their own resources allocated from their real income to the funds for professional qualification of workers. The same principle is applied in cooperatives and other organizations with which the workers associate their labour, land and means of production. Besides these funds, resources for educational purposes are available with the self-managing communities of interest and the responsible socio-political bodies. Farmers themselves also participate with their funds in the financing of education for acquiring adequate grades of professional qualification in the manner determined by self-management agreements.

Agricultural organizations of associated labour determine the programmes for permanent professional education of their workers and create the necessary conditions for the implementation of these programmes (resources, terms of applying for scholarships and grants, right to absence from work during the educational process, shorter working hours, remunerations and other facilities).

The system of education and further professional training of farmers is still developing. There still exist serious obstacles for the full implementation of the educational programmes considering the work conditions in agriculture and the very active periods during the farming season. However, some initial results are already evident and full participation of all parties involved could guarantee that the system will function more successfully in the future.

SECTION III - NON-FORMAL EDUCATION

LITERACY FOR DEVELOPMENT IN ZIMBABWE

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The problem of illiteracy in Zimbabwe results from colonial political, social and economic structures. In order to analyse this problem we must examine the relationship between education and society in Zimbabwe during three periods: precolonial, colonial and the present.

Precolonial Education and Society

During the precolonial period the education of both children and adults was closely linked to their daily lives. There was very little separation between mental and manual work. One learnt how to look after cattle or to make pots by actually doing it. Even when grandparents were telling folk stories, the children of Zimbabwe were required to participate actively by joining in song or repeating after the elders. There were many positive aspects of pre-colonial education, such as the emphasis on the value and importance of a human being and the ability to co-exist with others in the village. Children were taught to look after the weak and the disabled. It was a serious offence, for example, to ridicule a cripple or to refuse strangers food and shelter. This is reflected in the Shona proverb: "Mweni Haapedzi Dura" (visitor will never finish the granary).

Most social activities were done collectively. Hunting, threshing corn, building a new homestead were all done together. However, there were some negative aspects of this educational system. There was excessive belief in supernatural powers, exploitation of women and an unquestioning faith in the wisdom of the elders. There was also a certain privatisation of knowledge. Specialist skills were passed along to close relatives or favourite sons. The art of iron working, was one such skill whose secrets were jealously guarded. People had not yet acquired a scientific outlook.

Colonial Capitalist Structure and Education

With the intrusion of colonial capitalism in 1890 most of the positive aspects of education: co-operation in productive activities, and close links between education and production, were gradually lost. These were replaced by excessive individuation and the enforced separation between mental and manual work. Capitalism promoted an individualistic society, opposed to the collectivist society which was more natural to Africa.

Colonial capitalism, in order to provide a docile labour force, created structures to mystify and legitimise the superiority of the settlers. At this time no African was educated to analyse the situation. Very few Africans, if any, were capable of asking, WHY? Why do we not

have a vote? Why are we given European names while no white man is ever given a Shona or Ndebele name? Why are we being taught about Elizabeth I, rather than Nehanda? No one at this stage was educated to challenge the status quo.

However, many voices were heard even among churchmen exhorting Africans to fear God and respect work. In 1901 the Anglican Bishop of Mashonaland found inspiration in the Bible when he told African workers: "Thou shalt keep thy contracts." Another ardent supporter of settler capitalism, the Wesleyan Minister of Tegwani, J.W. Stanlake never tired of reminding Africans that they owed the Europeans a special debt for liberating them from the "tyranny" of the Ndebele. Africans had to reciprocate by serving Europeans. "Do not be afraid of work. Christianity means obedience and service." In addition to trying to domesticate the African, Stanlake was also dividing and weakening the people by encouraging tribalism. Throughout colonial history tribalism has been used as one of the strongest weapons for keeping Africans disunited. In the case of Zimbabwe, this is reflected by the deliberate distortion of history and facts especially as regards the relationship between the Ndebele and the Shona. In colonial textbooks and newspapers the former were always described as brutal killers and thieves, the latter as cowards, lazy and weak. The Rhodesian Front tried to do its best to keep blacks in Zimbabwe disunited by giving undue prominence to both Shona and Ndebele chiefs as the authentic representatives of the people.

The settlers' main aim was to make maximum profit and to minimise loss. To assure these profits from mining, industry and agriculture, the white minority created laws and socio-economic institutions. In the field of education, white settlers through the Rhodesian Chamber of Commerce decided:

> The form of education suited to the status of the native and the requirements of his position is one which inculcates in the first instance habits of order, discipline, and obedience with a view to rendering the native actually useful to his employers and accustoming him to look upon work as the natural means of making a livelihood.

In order to assure and legitimise white supremacy in economic, political and social life, the following laws were passed by the settler dominated Parliament:

1. The Land Apportionment Act of 1930 which divided land between blacks and whites until 1980. One hundred and eighty thousand whites, of whom only 5% were farmers (9 000) received 48 065 acres while 2.5 million blacks, the majority of whom were subsistence farmers, were awarded a total of 38 111 000 acres. Most of the black land was on poor soil and far from the markets.
2. The Maize Control Act of 1934. This act set two prices for agricultural products, especially

maize - a higher one for small white farmers and a lower one for blacks. This had the effect of discouraging African peasants from marketing their produce. This meant that in order to get cash for the hut tax the peasant was forced to migrate to urban and mining centres in search of employment.

3. The Industrial Conciliation Act of 1934. This excluded many Africans from the status of employee. This meant that they could not bargain with their employers in the event of disputes, nor could they be accepted for employment as journeymen or apprentices. The result was that blacks were a source of unskilled, cheap labour. Its overall impact was to put the African worker at the mercy of the employer in terms of conditions of service and wage terms. Africans were forbidden to organise in trade unions.

4. The Native Pass Act 1937. Its aim was to control the movement of black labour. It restricted blacks to their homes as shown on the CHITUPA or registration certificate. Each employer kept the registration certificates of all his employees, so there was little chance of changing employers. Each employer had to endorse the request for leaving work. The overall result was that Africans were tied to settlers as cheap labour. Those who were unemployed were tied to the rural areas on subsistence farms.

The colonial capitalist system had long lasting psychological effects which the new society still has to fight. Settlers spoke of "My Africans ..."; Ian Smith frequently talked about "Our peaceloving Africans who are the happiest in the whole of Africa ... ." Rhodesian blacks for ninety years had no real independent existence; they were owned by the "baas" or the "madame". The indiscriminate use of "houseboy" or "housegirl" to describe a person from 7 years of age to one of eighty years indicates the ideology of white supremacy. In the eyes of the white people, Africans remain perpetual children. It is interesting to note that as late as 1980 many white farmers and employers believed that their "sensible Africans" would elect the puppet black regime fathered by the Rhodesian Front.

It is difficult to conceive how the colonial regime could embark on a literacy programme for development. Whatever educational programmes were organised served as a means of social control.

Both community development and agricultural extension services fell under the direct control of the District Commissioner who worked in the hated Ministry of Internal Affairs. European extension services came under the Ministry of Agriculture.

This close relationship between colonialism and education in Africa was clearly defined by a French Governor General:

> Education is politics. It is an effective way of making our colonial policy acceptable to the Africans. It aims at producing the type of African who will always be our ally in all spheres of our colonial policies. The objective is to make sure that we have a few but well-selected Africans in the elite who will become cogs in the machinery of our colonial system. On the other hand, it is education whose essence in relation to the African masses is to create a gap between Europeans and Africans so that the African elite is something intermediary, something neither African nor European. From the point of view of politics, the aim of education is to make the African feel we are making efforts to improve his lot, to make the African believe that we are changing his life for the better, redeeming him from slavery. From the point of view of economics our colonial education is aimed at producing producers of raw materials we need in Europe and consumers of the manufactured goods we make in Europe from those materials.

The Rhodesian settlers could not agree more with the French governor. This lengthy quotation raises a number of important issues:

> the mystification of reality by the colonial system of education;
>
> the deliberate dehumanising of Africans;
>
> the deliberate policy of divide and rule by the creation of classes;
>
> the close relationship between education and the international division of labour.

As long as the present international economic order maintains the exploitative structures whereby developing countries provide cheap labour, it will be impossible to transform the educational system at all levels. The economic system in Zimbabwe, as the Riddell report points out, has been for the advantage of the white minority. That structure must change by law before education changes.

The Task at Hand

The education system which the new state of Zimbabwe inherited was one of cornerstones in establishing and maintaining the inequality which characterised every aspect of Rhodesian life. Roger Riddell, who has researched social issues in Zimbabwe, describes the educational system in Rhodesia as "elitist, highly selective, economically wasteful, geared to the needs of the small modern sector of the economy which is

incapable of providing enough jobs for the country's growing population. It is neither relevant to the employment needs of the majority nor to the complete eradication of illiteracy.

The 1969 census showed that 1,5 million Africans over the age of seven had never been to school at all. Eight hundred thousand blacks over the age of seven had been only to grade three. According to UNESCO it is generally accepted that unless a person has at least five years of schooling they are in danger of becoming illiterate again. Since the majority of dropouts and school leavers live in the rural areas where there is little occasion to practise literacy and numeracy skills, it can safely be said that many have relapsed into illiteracy. A very conservative "guestimate" of the Zimbabwe Adult Literacy Organisation is that over 1,9 million adults in this nation are functionally illiterate. Thus the government has the enormous task of waging the battle against illiteracy, low levels of production and ignorance among the millions of peasants and workers in Zimbabwe. It is gratifying to note that the present government is determined at all costs to reverse the evils of colonialism. Comrade Mugabe had this to say about the problem:

> "My government is committed to unleashing a vigorous attack on the evils of mass poverty, disease and ignorance. My government clearly cannot accept a state of affairs in which millions of our people are condemned to a life of mere existence, characterised by stagnation, hopelessness and desperation. Our struggle for liberation ... would lose meaning were we in the moment of victory and the era of peace to allow millions of our people to wallow in poverty and degradation as victims of forces beyond their control."

Criteria for Literacy Programmes in Zimbabwe

In the light of this national purpose, literacy programmes have to be designed in such a way that they undo the effects of decades of both physical and mental exploitation of the peasants and workers. Literacy has to liberate the people. In many countries literacy programmes have failed because they were not rooted in the daily struggles of the people. Just as colonial education sought to create a docile labour force, socialist education in Zimbabwe should seek to create a new person whose outlook is scientific. The most important characteristic of education for liberation is that it must help people to understand the world they live in and the laws that govern both society and nature. Peasants and workers have to understand the political economy of this country, past and present. Marid Rahema says the objective of literacy is:

> "to read the world rather than the word. To become literate is to acquire an authentic voice capable of relating one's word to the realities of the world. It is to participate in the creation of a culture of freedom in place of the prevailing culture of silence ... This literacy is measured by its capacity to

> perceive the world-without illusions or fears and is exercised through man in the world, expressing his inmost feelings about the realities which impinge upon him."

In the Zimbabwean context this means that literacy must be related to those realities that impinge upon the illiterate rural poor, the underpaid workers in urban areas and those who eke out a miserable income through petty trading in the so-called informal sector. To these people life is a constant struggle against the overcrowded living conditions, crowded buses at rush hours, lack of adequate nutritious food and in the case of the rural masses, the lack of clean water, or health centres or means to transport their produce to a market, as well as the high prices for consumer goods in rural shops. Literacy should be concerned with giving peasants and workers the power to analyse the social and economic conditions with the aim of enabling them to create alternative economic structures like co-operatives which can eliminate exploitation by both the established capitalists and, according to His Excellency Comrade Banana, "those who accumulated more and more wealth at the expense of the peasantry, emerging black capitalists,endowed with the new and vigorous avarice for power."

Literacy must lead workers and peasants to be united against the forces of both capitalism and imperialism. Indeed, Comrade Mugabe gave timely advice on the need for unity when he stated: "If we are united the working class in Zimbabwe will become a force to reckon with in the national exercise to achieve economic liberation and rid ourselves of capitalist exploitation." In order to achieve this the worker has to be able to understand the role and function of workers' committees, the structure of industry in Zimbabwe, the relationship of parent companies to subsidiaries, the manufacturing process from raw materials to the finished product, and how it is marketed. Often workers do not even know who owns their company or where the profits go. While industry and commerce are well organised to protect their interests, workers are fragmented.

As for the peasants, literacy must enable them to realise the importance of collective production. The relationship between food, self-sufficiency and political independence must be understood by both politicians and peasants. This point was emphasized by the Prime Minister in his opening address to the Economic Conference held in Salisbury, September 1, 1980 :

> Not only is my government determined to maintain this pattern (food self-sufficiency) but also to improve upon it so that our political independence does not become impaired by the scourge of starvation and food shortages.

The Riddell Report on Incomes and Prices gives insight into the current thinking of both peasants and workers. On peasants' reactions to questions:

> There was little indication from people interviewed by the commission that in depth discussion of major structural change in the rural economy was taking place.

According to Riddell, most peasants seemed to cling to the past notions of joining the ranks of rural capitalists:

> They showed remarkable ignorance of the value of communal or co-operative farming. The majority of peasants expressed ignorance as to what these organisation farms involved.

On workers, the Commission reported:

> One major disappointment of the Commission was the lack of positive suggestions to help alleviate the expressed problems of the workers.

Education, especially literacy, has the important task of enabling the masses to think critically about their problems, discuss them and then formulate positive suggestions for acquiring economic power. In terms of implementation, the organisation of literacy programmes in Zimbabwe must involve the masses at all levels, through the establishment of local literacy councils in urban and rural areas. They must be involved in creating appropriate learning materials. Literacy must be seen as a continuation of the liberation struggle. Lessons from the war for liberation should be used in mobilising the masses to learn. During the war, comrades organised mass meetings for men, women and youths. In their allocation of tasks there was no discrimination based on age, sex or religion. It was a collective effort. Song and dance became prominent features of these meetings. These must be used as sources of reading materials. The people must be encouraged to tell stories from the war, compose songs and poems on the war. These can then be used as learning materials.

The liberation war has given a new and dynamic meaning to common words:

> obudi/vana mukoma, mujibha, chimbwido, imbambayila, have assumed new meanings. Names like J.Z. Moyo, Chitepo, Tongo and Nehanda have become household words. These can be used in teaching.

Literacy must be rooted in the daily lives of the people. Ideally the literacy programme will be linked to a number of projects dealing with the most pressing needs of the people in that area. As Kenneth King points out: "Care must be taken to think about the work situation of the illiterates who are mainly involved in subsistence farming and petty trading in both rural and urban areas." The greatest battle to be won is against the mystification of reality. As long as the people continue to fail to understand how things happen and why, it will be impossible to eradicate the dependency syndrome and also to decolonise them mentally. Literacy must enable people to discover how the rich variety of things and processes and changes to be found in the

real world can be explained and understood in terms of material causes, without bringing in God or any supernatural agency."

The compilers of learning materials and activities must make strenuous efforts to utilize the rich varieties of dances and songs of the Zimbabwe masses. Dances and songs from different regions and tribes must be taught to all of the people. Zimbabwean culture does not belong to any one class, race, tribe or region, but to all Zimbabweans. National dignity and mental decolonisation can only be fostered if people have respect and pride in their own culture. Neo-colonialism and imitation is a product of an inferiority complex. We have a proud record of achievements: the building of the Great Zimbabwe; the heroic struggles of Lobengula and Nehanda against imperialism. This popularisation of culture will go a long way towards promoting national unity. The masses of Zimbabwe have to be enabled to identify the enemy and to recognize how the enemy uses our weaknesses to infiltrate by using tribalism, regionalism and sexism and racism which have the ultimate aim of perpetuating capitalism.

The literacy programme must teach the geography of Zimbabwe, its regions, natural resources, transport systems, neighbouring states and their role in the liberation struggle. There should be special discussion about the exploitation of women in our society which must be fully explored.

Finally, literacy must enable the masses to be conscious of state security. The role of educators in this respect was clearly spelled out in 1978 by the Patriotic Front: "The forces of oppression and suppression emanating from imperialism will be lurking in the foreground of the new state of Zimbabwe. In that context the final and most important role of the education system is continually to check and counteract these forces whenever they emerge."

A Note on Resources for Literacy Programmes

During the colonial period there was only one full-time voluntary organization dealing with literacy: The Adult Literacy Organisation of Rhodesia, now called The Adult Literacy Organisation of Zimbabwe. The colonial regime left the task of making 1,6 million blacks literate to a welfare organization with the inevitable result that it could never manage to organize a national programme. It is significant that under the colonial white minority regime there was no government ministry which had special responsibility for literacy. There was no effort to carry out research or develop literacy materials for the masses.

Now, we recognize literacy as a government responsibility.

The following ministries have staff in the rural areas: Local Government and Housing, Health, Agriculture, Youth, Sports and Recreation, Community Development, Information, Public Services, Defence. Literacy can be made a component of their development projects. The experience of other countries indicates that without inter-ministerial cooperation the success of a nationwide literacy campaign cannot be assured. Literacy study groups supported by the radio can be an

effective method of organizing the national programme. As a follow-up, rural newspapers and mobile libraries are indispensible if the new literates are to retain their literacy and numeracy skills.

As we look at the problem of illiteracy, its roots and some possible solutions we see that Zimbabwe can learn much from experience gained in other countries which have also struggled out from under colonialism and imperialism. We need to share experiences of literacy programmes that have been organized elsewhere. We have a long hard way to go. The economic structures that were responsible for our underdevelopment are still intact, even though colonial political structures have been destroyed. We recognize the danger that these capitalist economic structures will recruit supporters from among the emerging black bourgeoisie. They can then view literacy for development and liberation as a threat to their own ambitions.

NICARAGUAN PEOPLE'S EDUCATION

R. Saenz
Ministry of Education-Nicaragua

"There is a need for Nicaragua to be converted into a great school of popular education, a school in continuation, which would never cease, which never loses its impulse, neither its enthusiasm nor its mystique." These words were spoken by Sergio Ramirez, member of the Government Junta for National Reconstruction, on 23 August 1980, the day of the Declaration of the Victory of Nicaragua on illiteracy.

To face the problems of popular education in Nicaragua, we have to place ourselves in the political context of the Popular Sandinist Revolution. We can find from it the concrete meaning of our popular pedagogy. We are not trying to transfer to Nicaragua some of the different specific definitions of Popular Education which have emerged in other parts of the Latin American continent. Our experience is not a mere copy of theirs. We are not trying to reproduce mechanically in Nicaragua experiences developed in other historical contexts. Popular Education is not an abstract concept, but a theory which has emerged from practical experiences, which have given it its own meaning. Revolutionary Nicaragua has challenged us to re-define in practice the contents, meaning and characteristics of the concept of Popular Education.

Guidelines for Methodology and Content of Basic Popular Adult Education

From the experience gained during the National Literacy Crusade in Nicaragua (C.N.A.) a series of principles emerged which serve as an orientation into the methodology and content of Basic Popular Adult Education. These principles serve at the same time as the groundwork of our pedagogy. We establish these in order to frame the political, philosophical, methodological and content aspects, and at the same time to set up a general strategy which illuminates the learning process of the adults in the Popular Education Collectives (C.E.P.)

Political Principles

(a) The Popular Sandinist Revolution is, by its own nature, educative. In the Popular Sandinist Revolution education is not considered as a parallel. The revolution itself is a process of liberation. Education is a moment in the praxis of social liberation, and of the development of the "new Nicaraguan man and woman".

(b) The Popular Adult Education of Nicaragua is not pedagogical action with political dimensions, but political action with pedagogical dimensions.

(c) Popular Adult Education is one of the dimensions of the democratisation and integral liberation of the revolutionary process.

(d) Popular Adult Education is in direct agreement with the interests of the popular masses to whom access to education was denied during colonial times.

(e) The project of adult permanent education can only be attained if it is the people who teach the people through existing organisations of the masses.

(f) The theme of Adult Popular Education is the revolutionary process itself following its demands at the productive, organisational and conscientising levels.

(g) There are no techniques for replacement and there are no techniques which can be superior to the organisation and political clarity of the revolutionary masses led by their political vanguard.

(h) The theory of education is the theory of revolution. We are not dealing here with two different processes, but with one unique process with multiple dimensions, although it possesses the same unique theory and the same unique dynamic.

(i) The existent mass organisations are constituted, consolidated and purified in revolutionary praxis. Now, the educative and empowering dimensions of the revolution can only be found in the heart of the revolutionary praxis: therefore the existent organisation of the masses is constituted and consolidated in the process of the povo attaining its organisation and education.

Philosophical Principles

(a) The growth of the new man in whom the values of solidarity, fraternity and respect to human dignity would be practised is one of the principal goals of Popular Adult Education.

(b) Popular Adult Education is based on the materialistic theory of knowledge.

This means that the dialectic method is applied to education: to the process of knowing reality, of theorizing upon it and transforming it.

Methodological Principles

The National Literacy Crusade gave us, through the systematization of its successes and difficulties, valuable experience for a concrete re-assessment of the systematic programme of Basic Popular Adult Education.

(a) Through the CNA the following aspects of popular education were defined:

(a) 1, Due to its massive character all the structures of the Nicaraguan State and the existent mass organizations must be included.

(a) 2, Due to the deep human experience represented in it, the city and the rural areas are brought together and what has been lived at that level is fundamental for the future.

(a) 3, Due to its specifically instructive character the instrumental subjects are made available to all the people in order to facilitate its technical and educative preparation.

(a) 4. Due to its research character it is possible for the popular masses to assimilate its concrete historical reality.

(a) 5. Due to the multiplying effect of its action the Revolution finds in it a never ending source of human resources.

(b) To face the methodological question of Popular Education in the context of the Popular Sandinist Revolution, means to carry forward an educative process in the Revolution, from the Revolution and for the Revolution.

(c) The methodology of Popular Adult Education must be a process of integration between the theory and the pedagogical practice, and between the dynamic and dialectic relation, between the political objectives which must be obtained and the reality from which one has started.

(d) The dynamic condition of Popular Adult Education has made necessary the implementation of a scientific methodology, capable of utilizing active, participative and dynamic techniques.

Principles to Illuminate the Content of Education

(a) The content must generate a dynamic, participative and creative process in the popular masses.

(b) Starting from practical experience we combine content of general character with content of particular character which relates to the specific region.

MINISTERIO DE EDUCACION
VICE-MINISTERIO DE EDUCACION DE ADULTOS

NICARAGUA

AÑO	SEMESTRE	NIVELES				
1980	1º Mzo Ago	CNA				
	2º Ago Dic.		SOST			
1981	1º Ene Jun	Alfabet. perma.	SEG			
	2º Ago Dic	Alfabet. perma.	1º	2º		
1982	1º Ene Jun	Alfabet. perma.	1º	2º	3º	
	2º Ago Dic	Alfabet. perma.	1º	2º	3º	4º
1983	1º Ene Jun	Alfabet. perma.	1º	2º	3º	4º
	2º Ago Dic	Alfabet. perma.	1º	2º	3º	4º

CUADRO

MINISTERIO DE EDUCACION
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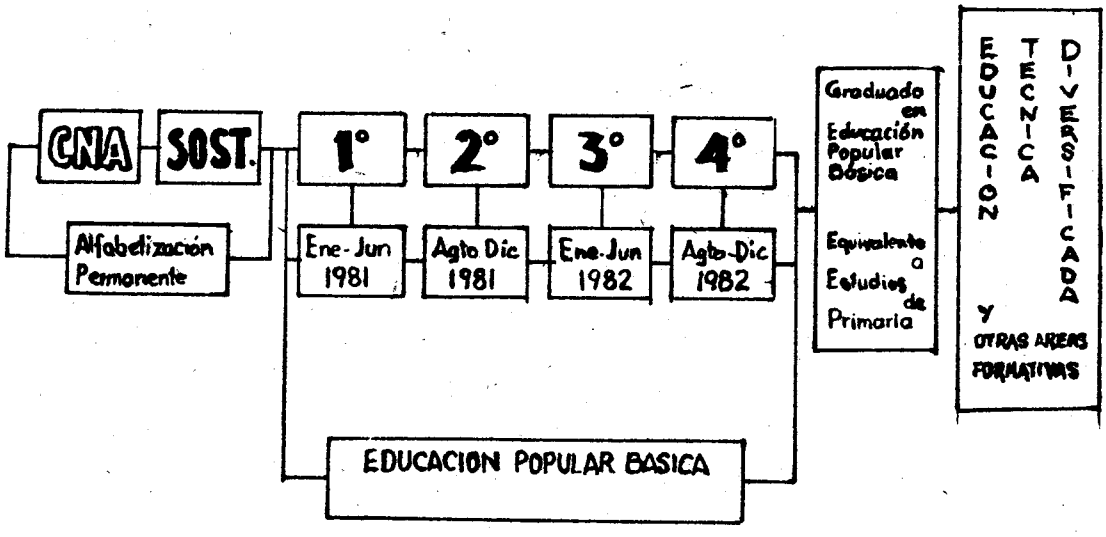
NICARAGUA



The Programmme of Basic Popular Education

1. What is it?

The National Literacy Crusade signalled the first important step in the education of the popular masses of our country and it created the basis for the formulation and implementation of a programme of Adult Popular Education, which is permanent, progressive and universal. This responds to their aspirations for cultural and political growth. This education is a duty and a right of all our people. It is called Basic Popular Education.

2. Goals

Our revolutionary process in its irreversible advance is forcing us to provide a political and cultural basic preparation for our people. This basic preparation would allow our people at a later stage, and through different methods of formation, to obtain the technical training and the conscious participation required by the socio-economic development of our country.

3. How is it organized?

Popular Basic Education comprises four levels, and each one of them corresponds to a semester of the academic year. These four levels are approximately equivalent to primary education in the system of national education.

The organization and structuring of the programme as expressed in the following graph is not a reproduction of a classroom system, neither are its contents the extrapolation in pedagogical terms of elementary education carried into adult education. Adults have a wealth of experiences produced along their long struggle in life, and such experiences should be utilized for their process of formation. On the other hand the contents of Basic Popular Education are directed towards the attainment of the political and ideological strengthening of adults and towards the development of their cultural level. They can then participate in a direct active and effective manner in the different tasks which form the growth and consolidation of our revolution.

The organization and structuring of the programme means that this has to be arranged in order to carry forward an educative process in the revolution, from the revolution and for the revolution.

Explanation of Diagram on the Organization and Structuring of the Programme of Basic Popular Education as set out in 1980

The year, semester and level of education are represented in the diagram:

(a) Semester 1980

The year 1980 appears in the top left square. It is followed by semester 1 and 2 . Next to the square of semesters and under levels it can be seen that National Literacy Crusade took place during the first

semester, and the follow up during the second.

The diagram continues in the same way with squares of years, semesters and levels.

(b) First semester 1981

In the square corresponding to the year we have now 1981, and next to it are the 1st and 2nd semesters. The 1st semester starts in February and ends in June and comprises the level of Permanent Literacy and the I level. The rest of the squares are empty.

Permanent Literacy is introduced for reasons of historical consequence in order to attain the total eradication of illiteracy and in order to incorporate these fellow country-men into our revolution.

(c) Second Semester 1981

Under the column of semester, and also referring to 1981, we have indicated Semester 2 . This has three levels: Permanent Literacy, First Level as an answer to the demands of studies of those already incorporated in the system of Adult Education, and a new level is created as a continuation of the previous one: the second level.

(d) First Semester 1982

For the year 1982 and during the first semester (January-June) three levels are already functioning namely Permanent Alphabetisation, 1st Level, and 2nd level. A new third level is then opened to receive all the students who have finished the second level during the previous semester.

What this really means is that the level of permanent literacy receives those fellow citizens joining for the first time the system of Basic Popular Education and the first level receives those who have gone through Permanent Literacy. The second level will receive those who passed the first level, and the third level is introduced for those who passed second level.

In this way new levels are created every semester both to satisfy the study demands and to create room for our planification of studies, for preparation of text books and programmes. It will also allow for enough time to develop the adequacy of the teachers required to work at the corresponding level.

(e) Second Semester 1982

In the second semester 1982, all the levels of Basic Popular Education are functioning. Thus it will be seen that, apart from the level of Permanent Literacy, and the levels 1st, 2nd, and 3rd, the 4th level will be introduced; this is the final level of Basic Popular Education.

Any technical course which wishes to incorporate adults, if the conditions of the revolution do not demand anything else, is able to do it when the adult literate finishes the fourth level, becoming an E.P.B. graduate and enjoying a higher educational level which allows him to initiate technical diversified education, and other areas of studies.

(e) Semesters 1983

In 1983 all the levels of the EPB continue functioning, namely the level of Permanent Literacy and the four levels of Basic Popular Education. New students completing the fourth level have basic preparation to enter into courses to improve their technical skill and at the same time they have the possibility for further areas of study.

Characteristics of the Method

The method expresses the principle of praxis. It starts from reality which is then analysed to find actions directed towards its transformation. This principle generates in the education a dialectic scientific attitude which is the basis of the global revolutionary method.

1. This is an all-embracing method which leads towards the unity of science in as much as:

(a) in its development it does not remain in the partial study of knowledge concerning a particular thematic area, on the contrary it tries to integrate that knowledge in the scientific vision. The strategy of the Sandinist Popular Revolution is the best expression of this vision.

(b) scientific and operative knowledge are integrated in life itself. This characteristic allows for the transformation of that knowledge into tools for the change of reality itself.

2. This is also an active method, because "to learn by doing" is its base. "Action" is its centre. This characteristic is expressed in three movements. The participants of the educative action:

(a) investigate, systematize and analyse its own reality;

(b) interpret and make their own the strategy of the Sandinist Popular Revolution, starting from their

own experience;

(c) discover the possibilities of transforming reality.

3. The method is based on participation. The members become subjects in their own education, which is linked to reality and to the search to transform it.

Social interaction is thus attained while the group is doing the task.

4. The method is creative, because the subjects of the educative action become initiators of knowledge through dialogue and critical reflection; they are not passive receptors.

5. The method is critical because it fosters the attitude of questioning reality.

This questioning attitude opens two important dimensions:

(a) It allows for awareness of reality.

(b) It allows for awareness of class consciousness.

6. The method is flexible because it secures a kind of mobility which facilitates adaptation to reality in order to respond to the changing situations of the popular masses, involved in the revolutionary process.

7. The method is based on dialogue, because communication is transformed as an instrument to transform reality.

8. The method is a searching method because knowledge is not developed only through the reception of information, but it also develops through the action of the subject of education which starts from reality.

The Steps of the Teaching-Learning Method

The method used in Basic Popular Education comprises four steps, through which the education of the popular classes is attained while the different didactic techniques for the development of different areas of studies are applied. These steps are the following:

1. Knowledge of reality, which enables the participants in the activity of education to find the elements which describe situations in daily life and in the life of the country, and this is done through the description of a picture, a photograph or a dialogue.

Through the development of this step the ability to express oneself correctly and to speak is exercised.

2. Analysis of reality, is the step through which the participants are encouraged to reflect on the reality observed and described in the previous step, in order to find the reasons why reality is found as it is. When this step is developed the ability exercised in step one is strengthened, while the analytical and critical way of thinking is activated.

3. Interpretation of reality allows for the confrontation with reality as it was observed and analysed in previous steps, and this can be done thanks to the understanding that the revolution has of that reality, and the plans of action through which the people will take part in the transformation.

Through this step one learns, discusses and analyses a series of scientific data useful for the cultural formation of the people and for daily life.

Language abilities are equally developed (reading and writing).

4. Transformation of reality, which consists in finding the means, activities and concrete actions which contribute to improve or change reality. This step is a collective application to concrete situations of daily life of what has already been learned.

A Structure of Educative Action: the Popular Education Collectives

A. Historical Origin

Before the end of the National Literacy Crusade a highly original design was introduced. This is a formula which has never been used before in any known literacy project. It consisted of the promotion of new literates to take part gradually in educational tasks.

The introduction of this formula was instigated by particular Nicaraguan circumstances and by the fact that the Literacy Campaign was effected with the organized participation of all the nation, but specially of the youngsters, students organized in brigades in the mountains, teachers, voluntary workers, and some fellow peasants in the countryside. Once the Literacy Campaign had been completed it was impossible to maintain this type of literacy teacher in large sectors of the country. The teachers and the students from formal education had to return to their classrooms. We found ourselves without the sort of popular literacy teacher needed to continue the programme. It was then that our formula gradually emerged from grass-root realities and experiences. During the National Literacy Crusade large numbers of literacy teachers started to promote many of their more proficient new literates as MONITORS. This proved that it was possible to use the new literates to assume some educational functions.

We consider this event as an important qualitative step forward in education: the fact that a new literate assumes the teacher's function. The newly promoted literates were called CO-ORDINATORS.

This structure developed before the end of the National Literacy Crusade. It was still possible in spite of many difficulties to send them a small document, which was the Manual of the Co-ordinator, directing the members of the Brigades and the Popular Literacy Teachers to prapare these friends to assume responsibilities in the group. The training was not achieved to perfection, but the CO-ORDINATOR formula ws already established, and this was a strategic formula in the programme of Adult Education in Nicaragua.

This formula permitted that at the time of mobilization of members of the Brigades and teachers the net composed of Literacy Units would not disintegrate. It was possible to rearrange and co-ordinate still further these Literacy Units turning them into POPULAR EDUCATION COLLECTIVES (CEP) as we call them. These are constituted by CO-ORDINATORS and participants.

The structures of Popular Adult Education are the Popular Education Collectives. It is around this collective that the participants in the programme find their role and perform their different functions.

The Popular Education Collective is like the trench, the defensive pit, which is situated in the firing line. It is there that the whole educative project becomes real. The whole organizing and administrative apparatus is directed towards it.

B. Characteristics of such a "Trench"

1. Community Oriented

There is a double difference between a Sandinist Literacy Unit (UAS) and a Popular Education Collective (CEP). First of all it is recommended that the Popular Education Collective should not be restricted to family units. Many Literacy Units were family units, and the father, the mother and some of the children became literate as a family. On the other hand, the Popular Education Collective is asked to overflow the family and to reach several families in the community in order to obtain wider participation.

Secondly the guidelines formulated for the creation of the CEPs stressed the need of concentrating the population. There had been Literacy Units which were made up of two or three members. That was a luxury we could not afford.

2. Popular

They are constituted by villagers and the co-ordinator assists selflessly, without profit or personal ambitions. They are all peasants and workers who wish to increase their general basic education in order to participate more fully in the revolutionary process.

3. Voluntary

The CEPs function without remuneration: neither the participants pay, nor do the co-ordinators receive, any allowance. Nobody is paid for teaching or for learning. All the activities of the CEP are voluntary, and nobody is forced to participate in them.

4. Heterogeneous

(a) They function equally in urban and in rural areas with the participation of men and women, 10 years of age and above, teenagers and adults.

(b) Among the members of the CEP there are differences in the rhythm of learning and in the levels of schooling.

5. Flexibility

The participants and co-ordinator of a CEP can meet at the time more convenient to them, in the morning, afternoon or evening, and this allows them to be integrated in other activities.

6. Nuclear Function

The CEP are an immense net of organization and mobilization through which the whole educative wealth of the Revolution can be channelled. This net is connected with State programmes and with the Organizations of the people, and this is a fundamental guarantee of the Programme of Basic Popular Adult Education.

C. Functioning: Educational Stimuli Trigger Organizational Responses

C.1 The Popular Education Collective (CEP) in the supporting stage

The second stage, called the supporting stage (SOSTENIMIENTO) was attained and launched thanks to the formula of the Popular Education Collectives (CEP).

The support stage (SOSTENIMIENTO) was created to continue the task initiated by the National Literacy Crusade (CNA) and as an integral part of the same. It constituted a moment of transition between the Literacy Campaign and the third stage of the programme which is Basic Popular Education (EPB).

In the stage of support the following objectives were put forward:

(a) To sustain the newly created literates in the learning of writing to prevent deterioration in the skills obtained during the campaign.

(b) To maintain the motivation of the new literates through study.

(c) To complete the literacy training of those who for one reason or another were not able to finish the programme.

At this stage a Popular Education Collective (CEP) was integrated by friends from one or more Sandinist Literacy Unit (UAS). The following criteria were established in order to constitute the CEPs:

(a) Composed of about 10 members, not more than 12 and not less than seven.

(b) Not composed of members of a single family.

(c) Guarantee that the members of CEP have possibilities to move easily to the meeting places and that distance problems would not be an obstacle for the CEP to function properly.

(d) There are two kinds of members in the CEPs:

1. Those who have recently become literate.

2. The illiterates who were not able to complete the workbook for reading and writing.

Every CEP has a co-ordinator of Popular Education.

The Popular Co-ordinator

The Co-ordinators of the CEPs were chosen from among:

(a) The new literates who became proficient during the CNA. They showed their revolutionary spirit, moral integrity, dedication, endurance, readiness to serve, and commitment to the revolution and to the tasks of the CNA.

(b) A man or a woman who might not belong to the UASs which integrate the CEP, or even who might have not participated in the CNA, but who is a member of the community, has the political, organizational and moral requisites, and who has attained a level of primary education.

The ideal in this last case is that the Co-ordinator should be a member of existent mass organizations active in the community.

The CEP should elect a member to substitute the popular Co-ordinator in case of absence and as a monitor for those who remain behind.

The CEPs should meet at least twice a week, on dates and at hours fixed by the members and in places suitable to them.

Functions and Tastes of the Popular Co-ordinator

The co-ordinators are in charge of implementing the educational goals inside the CEP, they have the responsibility of carrying out till the end the teaching-learning process of the fellow members of the EPB. In order to do this they perform the following tasks:

(a) At the beginning of each semester they will conduct a week of organization.

(b) To be an example of perseverance and punctuality in the CEP.

(c) To call the roll of the fellow members of the CEP.

(d) To visit the members who fail to attend lessons to know the reasons and to help them find a solution.

(e) To prepare and study the lesson to be taught each day.

(f) To programme the work to be done each week.

(g) To deliver to the fellow members of the collective the study material.

(h) To listen to and to promote the programme "PUNO EN

ALTO" and to implement its orientations.

(i) To attend and take part in the Weekly Workshops.

(j) To direct the work and to encourage the fellow members of the CEP to work.

(k) To maintain high spirit in the CEP.

(l) To create incentives for other members of the community to join the CEP

(m) To foster unity inside and outside the CEP.

(n) To keep statistical records and to check the progress made in learning.

(o) To keep the Promoter informed on the situation of the CEP.

(p) To attend the Programmed Training Workshops.

Right at the beginning it was seen that the creation of CEPs by itself was not a guarantee that they would be maintained. Advice, supervision, control and encouragement to work were needed. For this reason the need was seen of supervisors in charge of several CEPs who would be responsible for their good performance. These supervisors were the Popular Promoters.

The Popular Promoters

Guidelines on the characteristics and tasks of Popular Promoters were offered in order to search for them.

The Popular Promoter should be a little more advanced in his studies, with political and organizing experiences, and with enough time to move around the area.

Promoters can be any of the following persons:

(a) A teacher living in the area.

(b) An officer in the mass organizations who may live in the area or who has been assigned to the area by his organization.

(c) Any member of the community with the requirements mentioned above.

Functions and Tastes of the Popular Promoter

His job consists of advising and in co-ordinating the work of various CEPs in his area, and at the same time he serves as a link between these and the Municipal Commissions.

To advise and supervise the CEPs he visits them once a week at least, assessing with the co-ordinators the development of the sessions, offering them any help needed.

It is also his responsbility to meet with the co-ordinators to assess the work done in the CEPs and to determine the amendments and

new orientations for the following week. In that respect the following tasks are necessary:

A To check on the co-ordinators and participants of each CEP under his care.

B To elaborate a weekly plan of work which would indicate the day, hour and place for CEP visits.

C To prepare the Weekly Workshops (TS) at least two days beforehand.

D To organize and stimulate unity among the CEPs with competitions and other activities.

E To distribute material to the CEPs.

F To keep the Municipal Sub-Directorate informed on the advance and functioning of the CEPs.

G To analyse the orientations received from the Sub-Municipal Directorate and to implement them according to the places.

H To deal with the problems of the CEPs and to bring to the attention of the Municipal Sub-Directorate the more serious ones, so as to find an adequate solution.

I To foster the programme "PUNO EN ALTO".

J To promote the attendance of the participants to the CEPs.

K To keep statistical records on the progress made at the CEPs of his area.

L To collect statistical data of attendance and to fill in the appropriate forms.

In this stage of support it was possible to maintain in the process of learning the new literates, preventing the deterioration of learning levels attained during the Literacy Campaign.

There are many reasons why many people were not reached. The co-ordinator had been recently trained; at times the co-ordinator was rejected because he was a peasant and not a teacher; in other places there were very objective reasons like seasonal jobs in the rural areas or migration of the co-ordinator. A very important factor is that the enormous mobilization and participation which was attained during the crusade could not be kept at the same level forever. It was during the stage of support that the idea of the co-ordinator emerged. It was also decided that the idea of the second key role, that of the promoter, would be tried.

C.2. The CEP in the Programme of Basic Popular Education

The experience gained during the support stage indicated that the co-ordinator and the promoter were the dialectical fundamental elements of the Popular Adult Education. The co-ordinator above all is the one who performs as teacher and student at the same time. He is not

employed and yet he is part of the administrative apparatus. He is at the grass-root level and is the last link of the teaching apparatus. The co-ordinator is the mirror and the measurement with which the text books, the methodology, the organization, and the problems are to be checked. Everything has to be decided with him in mind because he is the student as well as the teacher.

These important lessons were confirmed in the praxis and were accepted to build the foundations of the organization and structuring of the Basic Popular Education Programme.

In this way the CO-ORDINATOR, the PROMOTER, and the COLLECTIVE OF POPULAR EDUCATION (CEP) continued to be the driving force behind popular Adult Education in this new stage of the development of the programme.

In this stage, the nature and functions of the CEP have been outlined with great precision thanks to the experience which has been obtained.

The Popular Education Collective in the EPB is in the process of definitive consolidation, taking into consideration an educative dynamic which would be more systematic, progressive, stable, and consistent.

The Co-ordinator has to face now a more complex task, in as much as it looks after different levels of education and with a population remarkably different in regard to schooling levels: illiterates and new literates as well as other adults.

In this connection it is apparent that the majority of the CEP functioning today in the country are fulfilling a double function which has transformed them into mixed CEPs. Difficulties have arisen from such a situation due to the low academic level of the co-ordinators. The qualitative development of the teaching-learning process has been jeopardized.

In order to help in solving these difficulties which the co-ordinators have to face, the following guidelines have been given.

1. In order to look after the illiteracy cases without leaving aside the First Level of EPB, the co-ordinator may search in his group of CEP fellows, so that he may find one who would serve as monitor to help the rest in the process of literacy attainment.

2. If there is in the community any person with schooling experiences, their collaboration to assist in literacy training is invited.

3. To ask the mass organizations to look for persons who would assist the co-ordinator in the task of literacy training.

4. If the co-ordinator is able to divide the group in two sections operating at different times, it would be useful.

5. If in a community there are several MIXED CEPs it might be possible to re-structure them.

Means to Support The CEP

A Programmes of Studies

Programmes of studies conceived for Basic Popular Education are an answer to the demands of our revolution. They provide at First Level two key subjects, Language and Mathematics.

The content has also been selected in such a way that the adults may be able to obtain adequate knowledge to serve as a basis for future technical training.

The programme of studies for First Level is made up of:

- 21 language lessons through which the ability to read, to express oneself orally, and in writing, and to master basic grammatical principles is learned.

  Language is also used to teach Natural Sciences and Social Studies, and in that way one single pedagogical unit is formed, which will guarantee the global understanding of scientific knowledge.

- 14 Mathematics lessons in which the basic facts of numeracy, addition and subtraction are learned.

B Educative Workbooks

In order to facilitate the pedagogical task of Basic Popular Education the Vice-Ministry of Adult Education have produced study and training material for the departmental sub-directors, municipal sub-directors, promoters, co-ordinators and participants of the CEPs. These are: three books in the area of Language, and two books in the area of Mathematics.

Language Materials

NUESTRA TRINCHERA No. 1 was put together with the participation of outstanding Municipal and Departmental technicians.

It was later on discovered, in visits made to the CEPs, that the academic level of the workbooks was too high for the majority of the participants in Popular Education.

There was a need to produce some intermediate material. NUESTRA TRINCHERA INTRODUCTORIA was introduced to strengthen the abilities acquired during the CNA.

Manual of the Co-ordinator: Language

Each one of the language text books is accompanied by programming material. This is material which brings to the co-ordinators and promoters the necessary guidelines to develop with success the lessons of the language workbooks, NUESTRA TRINCHERA, Introductoria, 1 and 2.

Our co-ordinators and promoters are to a great extent new literates. They too must learn. They are real student-teachers.

It is for them that PROGRAMMING, a manual for the management of classroom activities, has been produced.

Mathematics Material

In Basic Popular Education mathematics is considered both as knowledge of immediate application and as a basis for future more advanced knowledge.

The objectives of this area are the following:

- To direct and enrich the mathematical knowledge which the members of the CEP already have regarding: numeracy of whole numbers up to three digits; addition; subtraction.
- To strengthen the knowledge that the members of the CEPs may have regarding the interpretation of the New Economy through readings and by setting up problems.

The contents of this First Level appear in two workbooks: EN MARCHA No. 1 which contains one reading and 7 lessons on reading and writing numbers up to three digits and one evaluation; EN MARCHA No. 2 contains 1 reading, 3 lessons on additions and two lessons on subtraction.

The orientation of the contents is entirely practical.

Methodology

With regard to the methodological development, themes have been organized following the concept of blocks or units. This is different from the organization in spirals used in the workbook "Calculo y Reactivacion" of the CNA.

The reason for this change in methodology is that students at the grass-roots level mainifested their interest in manipulating large numbers as soon as possible. This can be attained much easier using the learning unit form.

Contents have also been organized in a logical order which would permit a progress from the simple to the complex, from the known to the unknown. On the other hand it has been possible to maintain a constant relationship between the contents and their application to real life.

Manual of the Co-ordinator : Mathematics

The programming of the workbooks EN MARCHA is an effort to provide a detailed simple guide for the use of the Co-ordinator. It indicates the activities and tasks which can be effected with each exercise in the workbooks. It also contains the answers to all the exercises. This is a way of helping those friends who have difficulties in managing their lessons due to their lack of schooling.

C. Regulatory Materials

Daily Programming

Daily programming was designed to facilitate the development of the lessons while carrying out the work of education. The activities which have to be developed in each lesson are checked daily while planning, nevertheless we learned from experience that it was not

going to be very effective to hand a new document to the co-ordinators. For this reason daily planning was incorporated into the programming of the textbooks.

1. Week of Organization

The document containing the guidelines for the organization week was very useful to plan the initial work and contributed to greater organization of that work during the first week of the semester.

2. Weekly Workshops

The leaflet published by the weekly workshops has been very useful to technicians at departmental and municipal levels, and it has also helped promoters and co-ordinators, since it has permitted a greater organization in their functioning.

3. Workbooks of Guidelines and Evaluations

The guidelines for evaluations which are used in the National System of Education have also been used for other Education.

The workbook contains in very clear terms the system of evaluation which was applied at this First Level of Basic Popular Education; its contents are clear and its presentation has a motivational value.

4. Attendance, Evaluation and Control Book

The book of attendance, evaluation and control contains all the information required by a co-ordinator in the development of his work.

D 1. Training Activities which take place within the Programme of Basic Popular Education

(a) Training for First-Level - Workshops

After the experience of the CNA the method of Workshops with their multiplying effect was used to carry out the training of all the personnel involved in the First Level of the EPB.

(b) The training took place in three stages, the first or Matrix Workshop was organized in 5 workshops arranged according to geographical regions.

For Workshops II or the first phase of the multiplying effect, workshops were held at municipal levels and for Workshops III, second phase of the multiplying effect, workshops were effected in districts, hamlets, cities and villages, so as to cover the required quota of promoters and co-ordinators needed for the First Level.

For workshops II and III its organization, management and supervision were taken over by the Departmental and Municipal sub-directors.

Once the workshops at regional levels were established a greater integration of departments was achieved and a new perspective of the situation of the region was attained. This was possible because the departmental and municipal sub-directors attended the workshops. Their active participation in following stages was also achieved as well as ample familiarization and handling of the programmes of studies at

First Level. This has helped in improving the tasks of the sub-directorates.

About 145 workshops took place at National Level in the First Phase of the multiplying effect (workshop II) with 2 or 3 instructors for the workshop.

This proves the efficiency of the multiplying effect, since it was possible to train 30 000 promoters and co-ordinators only in phase II (worshop III) in the whole country.

C 2. Permanent Training

The formation of popular teachers who are needed in Basic Popular Education cannot be limited to the training provided in workshops.

To train the promoters, Pre-Workshops were created as a form of organizing the weekly workshop.

The workshops for their own characteristic of "learning-by-doing" allow for working in groups, individual and collective participation, input of ideas, discussions, critical attitudes and search for solutions for situations and problems brought in for discussion.

D 3. Pre-Workshops

For the realization of the pre-workshops, several modalities have been implemented taking into consideration the characteristics and needs of each department. Some take place every week, others every two weeks.

In the pre-workshops guidelines are given to solve the problems of technical, pedagogical and organizational character which the promoters, co-ordinators and participants have to face.

The materials used for the development of different activities of the pre-workshops are: textbooks and their programming, the leaflet of the weekly workshop and the units of permanent training.

D 4. Weekly Workshops

The weekly workshops were structured in order to be able to work 4 hours in various activities: evaluation of previous work; theoretical and pedagogical instruction; planning of work for the following week; mock teaching; analysing and solving problems; others.

Most workshops are mixed and for this reason the promoters make an effort to guarantee a good preparation of the co-ordinators.

D 5. Permanent Training Units

The need to provide materials for permanent training arises as a response to problems of a didactical nature presented by technicians, promoters and co-ordinators, in relation to the work which is to be done.

The Permanent Training Units are materials specially prepared to realize the theoretico-pedagogical activity in the workshop. These materials are intended to provide a series of didactical tools for CEP work to co-ordinators and promoters.

For the months of April, May and June of 1981, a series of themes were prepared. Thus were some of the needs of the co-ordinators during their first weeks of education experience. The themes dealt with are the following: blackboard; charts; how to deliver a lesson; sociodrama; creation of collective texts.

E. Programme "PUNO EN ALTO" (RAISED FIST)

1. Description of the Programme and its place in the EPB

The programme by radio "Puno en alto" is conceived as a supporting and complementary aid to the whole programme of Basic Popular Education. Due to the dispersion of the population, to the lack of human resources and to the scarcity of materials and transport the role played by the programme can be considered as strategic.

"PUNO EN ALTO" is not a programme of formal education, and does not substitute the educative function of the promoter or co-ordinator of CEP. Through this programme the intention is to reinforce the motivation of teachers and students, to train in the new pedagogic techniques, to supplement the contents of the workbooks of the EPB, to offer a collection of information in the global perspective of the ideological struggle which will carry forward the Sandinist Popular Revolution.

ETHIOPIA'S ADULT LITERACY CAMPAIGN

There is no doubt that we in Ethiopia have been able to make very considerable progress along the road towards the eradication of the evil of illiteracy - a task which has been long delayed in our country. We welcome the opportunity to describe the circumstances in which this has been possible and to exchange experiences with our sister African countries, for together we shall be able to achieve more than we can working in isolation.

We also welcome the spirit in which the government of Zimbabwe has undertaken this review of the education system in Zimbabwe. It recognizes that, if education is to develop in a true African context, the experiences of neighbours can be a valuable input to progressive thinking.

In Ethiopia our literacy campaign has had great initial success, although we realise only too well that a long hard road stretches ahead. It is important to define very carefully the specific conditions in which it has become possible to launch what can only be described as an educational revolution in our country. Without such an analysis, it would not be possible to identify how much of our experience can be generalised or transferred - and that is the central purpose of our discussion here.

We have now, since June 1979, conducted four rounds of our campaign, and this has provided a large body of evidence, data and experience which must be subjected to further intensive study to provide us with guidelines for action in the future.

The Ethiopian National Literacy Campaign was launched in June 1979. Prior to the Ethiopian Resolution in February 1974, literacy activity had been sporadic and had mainly been the work of non-government organizations and private individuals, very often in the face of constraints imposed by the old regime. For, although Ethiopia never went through a period of colonization, the oppression of an indigenous reactionary regime can have equally serious implications for the mass of the population. Thus, in 1974, 93 per cent of our people were still illiterate although we have had a written language for more than ten centuries, and although modern education was introduced in Ethiopia at the very beginning of this century.

After the revolution, education was accorded one of the highest priorities in the government development programme. The will of the nation was crystallised in the Programme of the National Democratic Revolution of Ethiopia, which stated that, in seeking to relieve the mass of the Ethiopian people from the burdens and the evils of ignorance, misery, disease and want:

"There will be an educational programme that will provide free education, step by step, to the broad masses. Such a programme will aim at intensifying the struggled against feudalism, imperialism and bureaucratic capitalism. All necessary measures to eliminate illiteracy will be undertaken. All necessary encouragement will be given for the development of science, technology, the arts and literature. All the necessary effort will be made to free the diversified cultures of imperialist cultural domination, from their own reactionary characteristics. Opportunities will be provided to Allow them to develop, advance and grow with the aid of modern means and resources."

However, before a nation-wide campaign against illiteracy could be launched, a number of pre-conditions had to be met. The creation of these positive conditions occupied the period between 1974 and 1979. The subsequent success of the campaign is very much related to the application of a strategy which focuses first on pre-implementation measures. These can be summarised as follows:

1. The campaign could only take place in conditions which had established the Ethiopian people as masters of their own destiny. This gave meaning to the acquisition of new skills enabling every individual to participate in the improvement of the conditions of life. Thus, the first period after the popular upsurge in February 1974, was occupied by the transfer of political and economic power into the hands of the people. For the rural population, which comprises the vast majority, the most significant of these steps was the Public Ownership of Rural Lands Proclamation of 1975, which removed the tyranny of landlordism and placed the whole of the fruits of their toil into the hands of the peasants.

2. Peace and security had to prevail in the land. As you will be aware, Socialist Ethiopia has suffered severely from the actions of internal and external enemies who have tried by anti-revolutionary activity and aggression to reverse the tide of history in Ethiopia.

3. The gathering of experience in the carrying out of rural operations with large numbers of volunteer workers and instructors and the mobilization of the educated sector of society for the purposes of development was necessary. This was carried out

during 1974-1976 when over 60 000 secondary school and university students and teachers took part in "Development Through Co-operation and Work Campaign". This was also an exercise in urban-rural contact, as the vast majority of the educated were urban-based.

4. An organizational base for development activity had to be created. This was achieved through the Rural and Urban Lands and Properties Proclamations of 1975, which together with subsequent legislation led to the formation of Peasants Associations and Urban Dweller Associations.

   Among a number of duties, these associations had the specific responsibility of organizing themselves for the eradication of illiteracy from the community.

5. A programme of action for national development based on the Programme of the National Democratic Revolution had to be formulated. This took place after the formation of the National Revolutionary Development Campaign and Central Planning Supreme Council in 1978. The development campaigns, currently conducted on an annual basis, link economic and cultural sectors and place importance on a rising level of productivity based on the communication of science and technology through a growing volume of post-literacy action.

6. A specific organization for the implementation of the campaign was required. This had to link all participating agencies at all levels and provide an effective mechanism for co-ordination. This was provided in 1978 through the establishment of the National Literacy Campaign Co-ordinating Committee (NLCC).

7. A massive educational campaign requires books and other teaching materials. Some experience of the kind of materials required had been gained during the UNESCO-financed Work-Oriented Adult Literacy Project which terminated just after the Revolution. Materials were further developed during the Development through the Co-operationg Campaign in 1974-76, and considerable experience in the logistics of a large operation was gained. From these two operations, which together served as the pilot and experimental stages which are essential to any generalized operation, a clearer idea was obtained of the nature of teaching materials and methods which link learning to needs and specific conditions. The

> Development through Co-operation Campaign also provided an early stimulus for the production of aids and equipment and put Ethiopia in a position to design and print all her educational publications, and to produce such essential items as chalk and blackboards in massive quantities.

Once these pre-conditions had been satisfied, the National Literacy Campaign Co-ordinating Committee undertook the organization and final planning of the campaign. The NLCCC brought together 28 representatives of government agencies, mass organizations (the peasants, urban dwellers, women and youth), professional associations and religious organizations, who together provided the expertise and the organization for the job. It had become clear that one government organization relying simply on the expectation of operational co-operation from other agencies could not carry out such a task. The size of the job merited its definition as a campaign backed by a total national resolve and commitment. This entailed the creation of a widely based structure, able to carry out the range of necessary functions which included the procurement and distribution of educational materials, the recruitment, training and placement of volunteer instructors, propaganda and information, aid co-ordination, data collection, supervision and evaluation.

Major roles in this work were necessarily assigned to the Ministry of Education which provided technical support through its Adult Education Department, the Ministry of Information and Public Guidance which mobilized the support of the Mass Media, and the Central Committees of the various mass organisations. The NLCC is chaired by the Ministry of Education and the Executive Secretary is the head of the Adult Education Department.

It was a major feature of the campaign organisation that the joint and specialised committees of the NLCC were reproduced at each administrative level where they were able to co-ordinate their plans and programmes with the development committees of the Central Planning Office.

At the base, operational details were in the hands of the mass organizations who were able to implement the programme according to local needs and conditions. The content of the programme emphasized, from the beginning, the central purposes of a literacy campaign. These reflected not only a response to a long and much neglected human right but also a wider range of human needs. Ethiopia had too long suffered from a miserable and precarious condition of life. The way out of this condition depends on a higher level of general productivity and the creation of conditions in which science and technology can have a real impact on the quality of life.

The literacy programme was therefore conceived in two stages - a basic skills programme leading to a supervised and directed application of these skills in the study of follow-up literature. A qualifying examination was placed between the two stages.

Experience during the first four rounds of the campaign has shown that this strategy was too deeply rooted in an academic tradition. The examination was mechanical and meaningless. It did not permit a real evaluation of understanding and the ability to utilise skills. The strategy was, therefore, changed in Round 5 and the two elements were combined so that skill acquisition led directly to skill use and application. An examination based on realistic content and application followed. The 'graduate' then proceeded to the higher level of application which we call 'post-literacy'.

It is interesting to note that these conclusions were drawn in part from the exchange of experience and ideas which took place in the Post-Literacy Operational Workshop for English Speaking African States which was held in Ethiopia during December 1979.

Experience has also shown that the literacy programme must be integrated with other education activities. It must not be considered as a "one-shot" operation. It is most important to take into account the 'post graduation stage" and to ensure that this leads smoothly into various forms of continued application of skills, continued education and training. In Ethiopia, we have developed a range of mechanisms to achieve this:

Younger participants in the campaign are eligible to attend at Grade three at primary school. As the schools are under the management of committees representative of the mass organizations in the community. This link between non-formal and formal systems has a community base. It is of interest to note that, as a result, we have something like a quarter of a million more primary school students in the system than had been planned for.

A second mechanism is the Community Reading Room, of which there are now over 2 000, with a target for over 4 000 by October this year. The Community Reading Room is constructed by the community and is stocked with reading materials by the government (initially 10 copies each of 50 titles for an average community size of 8 - 9 000). The booklets cover a range of basic subjects from soil erosion to child care and from sanitation to improved seeds. This follow-up literature will extend over time into continuing education at a higher level of scientific content and will supplement and support the efforts of extension agents in the various development sectors. In time, these Community Reading Rooms will become Community Education Centres with firm roots in the community and with community-directed educational programmes reflecting national development policies.

Thirdly, a growing infrastructure which supports follow-up and post-literacy activity is the Community Skill Training Centre. These cannot yet be provided to each of the 29 000 communities in Ethiopia, but within the next four years one will be established in each of the nearly 600 administrative districts in the country. By the opening of the school year in September 1981 over 300 of these centres will be in operation. During the operational year 1980-81, over 10 000 peasants received short-course instruction in CSTC's.

Finally, during the past school year, a nation-wide system of radio transmitters was installed. These eleven 1 kilowatt stations broadcast programmes for both formal and non-formal systems. In the Literacy Campaign a major role of these transmitting stations is mobilization for participation and also the stimulation of interest in post literacy programmes.

Mobilization was a keynote for success and had to be applied in a number of ways. As has been suggested earlier, a literacy campaign must be a campaign, it must achieve and maintain momentum. This is the product of the very size of the task and the need to achieve measurable results in the shortest possible time. With an increasing population and the imperative to involve the total population in development, the process of the eradication of illiteracy cannot be allowed to spread over several generations.

The broadest aspect of mobilization is the national will. This was turned into a national commitment by the NLCC in its campaign slogan: "I pledge to eradicate illiteracy through teaching or learning." It became an obligation to participate, and a duty of the educated sector to contribute. This mobilization for action was so effective that in the first round, which had been planned for 1.3 million participants, over 6 million people registered at the literacy centres - a lesson to be shared, with implications for a reserve of resources because mobilization cannot be allowed to result in rejection and a loss of enthusiasm.

The organizational mobilization has already been stressed. There are in Ethiopia some 29 000 community associations in town and countryside. Without this organizational base, the campaign could not have taken place.

Mobilization of learning centres was required. This resulted in a second slogan for the campaign: "Everywhere is a place for learning". Not only was there a physical need to mobilize all possible space for the millions of participants; this slogan satisfied two other objectives as well. The first was principle -that teaching should be brought to the participant rather than the participant to the teacher. The second was an attitudinal objective. The conventional education system has been associated with the formal school environment with specifications laid down by Ministries in Education. The result - very limited facilities for education and an educational operation which was divorced from all asppects of the community environment, particularly in rural areas. In Africa in the past the school has served to stimulate a migration of the able and the fortunate from the countryside. It had to be shown that education could be (and should be) something else.

Thus, teaching took place everywhere - not only in schools. At the time of the first round we had fewer than 6 000 schools, but there were over 34 000 literacy centres - in offices, factories, community halls, private houses, in army camps and police stations, under trees, in churches and mosques and in prisons, and in literacy shelters specially constructed by the communities.

There can be no teaching without teachers. For a campaign, an army of teachers is required. We have 40 000 teachers, but this group has a high responsibility within the regular school system. Nevertheless, regular teaching programmes were rearranged so that at least part of the day and periods of the school vacations could be used for literacy work. Teachers also played an important role in mobilizing the community, in the organization and control of classes, in guidance and support to volunteer instructors, and in the local manufacture of teaching aids.

The main instructor force comes from the student body, and therefore the teaching plan and the timing of the rounds of the campaign is geared to the mobilization of students at the most convenient time. The final secondary school examination takes place in April. The Attack Round of the campaign is therefore organized to begin in May and terminate in mid-October when students entering third-level institutions are due to return. From October to the following April is the follow-up and mopping up round of the Campaign during which the campaign continues at a lower volume relying on the human and other resources within the community.

During Round 5, we needed 20 000 instructors. We had 35 000 students in grade 12, who after selection and training are now teaching in the rural communities. However, this was not just a question of matching total needs with national supply. In common with all developing countries we have inherited a secondary school system whose pattern of distribution does not match the distribution of population. The secondary schools are largely urban-based; over 80 per cent of the population resides in rural areas. There is no pattern of equity between regions. 30 per cent of our twelfth graders are enrolled in Addis Ababa. At least 4 000 instructors had to be transported from regions with a surplus to regions with a shortage, and virtually all instructors had to be transported within the regions to rural locations. This will be a feature of all future attack rounds in contrast with previous rounds where the concentration was on the eradication of urban illiteracy. In a large country like Ethiopia, transport mobilization is a major consideration.

With teachers must come teaching materials. During the first four rounds of the campaign over 15 million copies of literacy primers and follow-up materials in five languages were designed, printed and distributed. This in itself was a major operation requiring careful forward planning for production and distribution. Other essentials include chalk and blackboards. Ethiopia is now self-sufficient in chalk production for the education system in a production unit under the Ministry of Education using local supplies of gypsum and starting some years ago as a small labour-intensive operation. Blackboards were also produced in the Ministry School Furniture factory, but the major supply came from all the workshops around the education system- from production units in secondary schools, from the Awraja Pedagogical Centres (of which there are 97) and from the Community Skill Training Centres. Army camps and factoriy units also contributed to the output.

General teaching aids such as alphabet charts, flash cards and aids for numeracy were produced in a massive operation which began in the Awraja Pedagogical Centres where prototypes were produced and where teachers were trained. From these points, production spread to virtually all schools where teachers and students engaged in socially useful productive labour supplied local instructor teams with a range of teaching aids.

We learned that supply must be planned and under control and must be related to planning allocations for literacy activity in an operation which places great importance on the principle of self-reliance.

Forward planning evokes the question of who is to be taught and when. The stragegy defined by the NLCC was very clear. Eradication of illiteracy from Socialist Ethiopia meant that the whole population must be considered. There can be no selectivity in this. Not only is literacy a human right, but education is a social operation which must be related to the whole community There is no Ethiopian whose contribution to school and economic progress cannot be enhanced by the skills of literacy and numeracy.

We consider that this general target is unchallengable, but at the same time there must be a strategy for implementation. In the first place, to conduct a population-wide campaign to eradicate illiteracy among adults and youths, without paying attention to the educational needs of the succeeding groups in the younger age brackets is to invite the need for a permanent campaign. The spread of literacy must therefore be linked to the universalisation of a system of general education for children of school age.

In Ethiopia, the target year for a literate population is 1987. This is also the target year in the formal school system for the universalisation of education for children aged 7 who will enter grade 1 of the primary school. From that moment, no more illiterates will be fed into the pipeline. The system of general education will proceed to universalisation in grade 6 and then to grade 8 before the end of the century.

With this in mind, the priority target group has been set at 10 to 50 years, in the sense that during the coming six years there is an obligation on each Peasant Association and Urban Dwellers Association member within this age group to participate in the campaign. This does not preclude participation from younger or older members of society and the community literacy centres accept them for registration. A growth pattern has been established in which, once education has entered a community through the literacy campaign, it will be followed naturally by the extension of educational programmes into general education for the young, day-care centres for the very young and various forms of continuing education and training for the adult population in a community-based operation.

The second element in the strategy was to focus first on the eradication of illiteracy in the towns and settlements (i.e. any community organized in a 'Kebele' or Urban Dwellers Association) of which there are some 2 000 in Ethiopia.

The rationale was to provide firm bases all over the country and a distribution of experience among the various nationalities from which the drive into the rural countryside could take place. In fact no round in the campaign has been totally urban in nature; well-organized Peasant Associations have been included in every round and the rural areas surrounding the urban centres have also been involved.

Now that the moment approaches when urban literacy will have been achieved, this means in practice that the focus of the campaign will be on those communities which are located at least one day's journey from an all-weather road - something like 30 per cent of the rural population. The attack on these areas will take time and that is why a six-year programme has been established to carry it out.

Taking in the whole population, as in most African countries, means giving careful consideration to the strategy for language development. Among the 31 million people in Ethiopia there are between 80 and 100 national languages within the major groups of Ethio-Semitic, Cushitic, Omotic and Nilo-Saharan languages. Only Amharic has its own script and many languages do not yet exist in written form. Amharic is the official language and Amharic and English are used as media of instruction in primary and secondary schools respectively.

In facing the problems of preserving and utilizing the cultures of the nationalities, while promoting a common means of communication, each country must face the issues of an appropriate language strategy. In the Ethiopian Literacy Campaign the following approach has been adopted:

The essential first stage in raising the level of communication and in improving skills which can have an impact on basic conditions of life is to bring the languages of the nationalities into full use. Literacy instruction is therefore carried out in the local language.

Five were used in Rounds 1 to 4; 10 are being used in Round 5 and in Round 7 a further 5 will be added as the campaign focusses on the areas where these languages are spoken. Together, these fifteen languages cover the needs of over ninety per cent of the population.

As no other language has its own script, and only a few have been transliterated to a limited extent, an Ethiopian approach has been maintained by using the Amharic Script for all language teaching. This will lay the foundation for intercommunication between nationalities in the longer run.

Finally, in this review of some major issues which must be faced, in launching and maintaining a campaign of this magnitude, is the question of resources. It must be said very clearly that illiteracy cannot be eliminated within any meaningful time-space by conventional methods of government budgeting, if attention is also to be paid to the rapid growth of a universalised system of general education for children of school-age. It is also probably the case that a more limited, leisurely and long-drawn out attempt to reduce the volume of illiteracy will be more expensive in the long-run and will not bring the same returns in terms of mobilization for production.

The only conceivable answer is a total mobilization of all efforts and an organization for a war which has to be fought and won. This must employ all possible mechanisms for self-reliance in the production of essential equipment and materials and it will have to demonstrate the kind of persistence and determiniation which will attract the external assistance which is required to close the gap in financing the totality of educational effort.

These are frank words, but they reflect the Ethiopian experience. "We are going to eradicate illiteracy" can be an empty slogan, it can be a bureaucratically-designed project - or it can be a campaign in which the whole nation is involved. The latter is the real answer for it mobilizes both national and external assistance.

During the first two years of the Ethiopian campaign, local cash contributions totalled the equivalent of about 5.5 million US dollars, and external contributions in cash and kind totalled around 3 million US dollars. To this must be added the uncosted but essential inputs of unpaid volunter instructors and the support and subsistance for instructors provided by rural communities. During the first four Rounds, just over half the inputs to the campaign came directly from the popular organizations and from individuals, underlining the fact that this was real popular movement. Thus the operation must not only be a campaign. It must be a carefully co-ordinated community-based operation with government inputs supported by external contributions geared to real needs.

Our working figure for actual expenditure inputs is 16.25 Birr per participant for the basic course (about US$7.85).

One example of real needs is paper. The paper consumption of an illiterate society is miniscule. But with widespread community education activity and a rapid expansion of the effective reading public, paper requirements and use rise dramatically, and far more rapidly than any possible expansion of domestic production. Literacy, once achieved, ushers in the paper civilization, and this must be catered for - largely with external assistance.

The problem can be illustrated very specifically from forward planning in the Ethiopian campaign. Literacy is meaningless unless it establsihes permanent literacy. The national campaign in Ethiopia is concerned with offering the possibility for acquiring basic literacy to the whole population. But it is also concerned with the conditions which must be created for these skills to have some meaning. For this reason, literacy is linked in our campaign to all the actions required to ensure continuous educational activity at community level.

Thus by 1987, when basic literacy operations will have achieved their purpose, it is also planned to have achieved the following:

- Community Reading Room in each of 29 community centres;
- initial supply of 500 books for each centre

and a 10% per annum increase on the initial supply;

- regional structure of printing and distribution for weekly news sheets servicing an estimated 7.9 million families on an average distribution of 1 news sheet for two families;
- an increase in the national publication of post-literacy level books on the assumption that 10% of the literate public will buy one book a year.

The total cost of this operation, which includes the capital cost of small offset printing presses in the regions, has been estimated at US$ 46 million - yet the scale of servicing for a population which is estimated to be in excess of 37 million by that year is very low, and establishes only the foundation on which relevant education for all can continue to grow.

On the other hand, we have the conviction and the confidence that the eventual return, in terms of greater awareness, higher levels of human well-being, enhanced levels of productivity and the efficiency of all levels and types of organization for development, will be enormous.

New strategies for development can be applied which place less importance on the superficial functioning of a range of extension services, and place more reliance on an internally self-sufficient, self-generating and community-level application of the forces of human resources to development.

This may well add complexities to the task of a literacy campaign, but the consistent implementation of these wider objectives gives real meaning to the operation, not only to the central planners who can justify the investment as an essential input to the broad processes of development; but also to the individual participants who can see that they are involved in a long-range process of improvement which is well worth the efforts.

The Literacy Campaign must expose these broader horizons from the beginning and, right at the onset, it must be prepared to answer the question, "What is the purpose?"

It remains only to state how far we have managed to travel along this road in Ethiopia, and to describe the problems which we have encountered on the way.

Figures are now available for the first four rounds, covering the period June 1979 to April 1981. They show that in round figures some 10 million participants were registered. Of these some 8 million took the literacy examination and some 4 million have been awarded certificates. The majority of these 4 million are now engaged in post-literacy activities. The assessment of the situation in urban areas is in progress and evidence shows that the target for eradication of illiteracy in the towns is likely to be met by the end of 1981.

Some comment on literacy statistics is necessary. It is undoubtedly the case that some participants registered more than once having found it difficult to continue in a previous round. There are also those who transfer from one kebele to another and who registered again in the new kebele. It is also difficult to separate the re-examinees from those who take the examination only once. Therefore, some marginal reduction is probably required on the first two figures of 10 and 8 million.

From the breakdown of these global figures into the achievements in each of the four rounds, it can be seen that the drop-out rates have reduced from round to round; that a higher proportion of new participants have been examined from round to round, and that the proportion of those taking the examination who receive the literacy certificate has increased from round to round. This is gratifying and it reflects a growing efficiency in the organization and in the teaching process.

Finally, the statistics show that the response from women has been most significant. In the first round, seventy-three per cent of all participants were females. The proportion has now dropped, but it has always been much higher than the proportion of males in the population, showing that the women have been quick to take the opportunity to correct the balance in educational participation.

What were the main problems? It would probably be more correct to view the Ethiopian literacy operation in a wider historical framework and to conclude that a great deal of the problem-solution and the necessary redefinition of strategies took place before the launching of the current campaign in June 1979.

The campaign was preceded by two very important operations. First, the final stages, including the evaluation, of the UNESCO-assisted Work-Oriented Adult Literacy Project which was officially concluded in 1975. This was essentially an experimental project focussing on the relationships between literacy and work, and on the procedures and materials needed to effect a change in the rural and the urban environments.

In quantitative terms, the project was not a success. The target was for 120 000 participants in 5 years. The achievement was 43 400 in 6 years. However, in terms of programme development, the project provided an extremely useful experience in the preparation of materials which linked learning with practical situations and needs. The low participation rate was due to resistance from local authorities under the old regime and also to the obvious fact that a political and social revolution was a pre-condition to the effective utilization of skills in literacy and numeracy. An exploited tenant farmer has little interest in, or motivation for, acquiring skills which might lead to higher income if that income is taken away from him by a rapacious landlord! In general also, the conditions for a visible improvement in the conditions of rural and urban life for the mass of the population did not exist. Nevertheless, research into needs, translation of these into instructional materials and development of techniques for adult education was eventually valuable to the present

National Campaign.

Secondly, during 1974 to 1976, very valuable experience was gained in the Development through Co-operation and Work Campaign when 60 000 students and teachers worked in the rural countryside. This was an exercise in logistics, mobilization and organization and in the application of a teaching programme under the new conditions created by the Revolution.

Without this historical experience in these pilot exercises, there would have to have been a pre-implementation period for the National Literacy Campaign. Or, to state the issue in another way, probably many more difficulties would have been encountered.

Having said this, undoubtedly some problems remain. Some of these have been discussed earlier in the paper, but now attention might be focussed on four issues. It is also more positive to regard these issues as challenges to management rather than problems.

The first management challenge has been the impact of the campaign on the formal system of education. Interest in education rose dramatically. Communities were organized for action. Parents were determined that their children would not become illiterate adults, with the result that this year we found about a quarter of a million more children in the primary school system than had been planned for. In a social sense this can be regarded as an achievement. For the Ministry of Education it could be described as a problem

The second management challenge occurred within the campaign with the enormous response to the launching of the campaign which was more than six times what had been anticipated. This will undoubtedly occur in any campaign which is launched with large objectives and which is based in a mobilization of the nation! Our experience indicates a need to anticipate this - not to control it, because enthusiasm should not be killed at birth.

The third challenge is to set up and maintain a recording and data collection system which meets the needs of planning, management and evaluation. An action-orientated programme does not look kindly on bureaucratic demands - yet obviously data is needed. A fine balance in effort must be developed.

Finally, there is the ever-present challenge of resource mobilization. A literacy campaign which hopes to bring about a dramatic change in the educational status of the nation cannot begin by counting pennies, and then by estimating the volume of activity which can be generated. A literacy campaign is a social and political advance establishment of a national will and purpose is the most important achievement. The Ethiopian experience confirms that results reinforce confidence and produce support from national and external sources. The gaps are filled by innovation (stimulated by need) and by the growth of self-reliance (stimulated by experience).

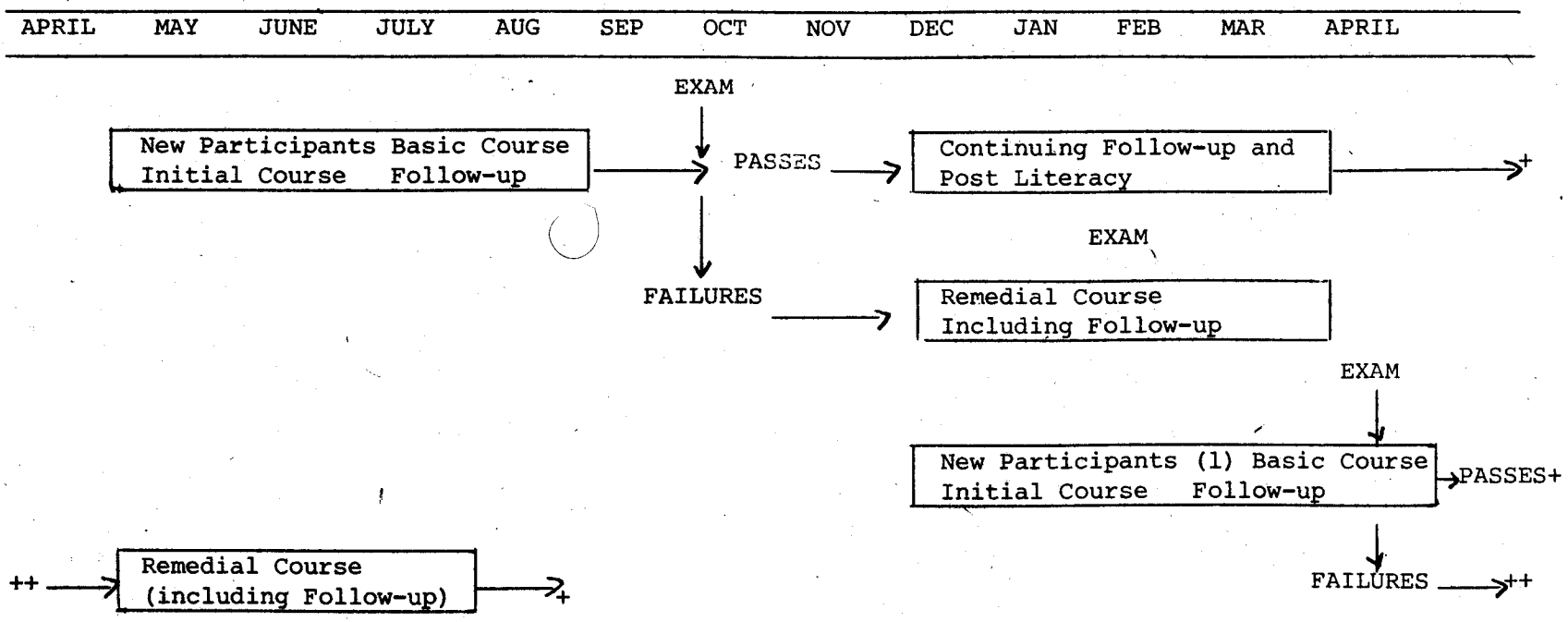
STATISTICAL SUMMARY FOR ROUNDS 1-4 (JULY 1979 - March 1981)
(Statistical Data for Round 4 as available in June 1981)

ITEM	1	2	3	4	TOTAL
New Participants Registered	6 224 904	477 828	2 522 672	765 969	9 991 373
New Participants Examined	3 683 288	298 108	1 598 092	1 493 412	6 072 900
New Participants awarded Certificates	1 543 678	145 948	973 367	273 400	2 936 393
New Participants Failing Examination	2 139 610	152 160	624 725	220 012	3 136 507
Remedial Class Registrations	-	1 613 305	-	1 262 465	2 875 770
Participants Passing Examination from Remedial Classes	-	511 894	-	506 545	1 018 439
Number Registered in Follow-up Classes	-	812 970	-	1 013 556	1 826 526
Drop-outs from New Participants	1 674 319	151 103	850 612	259 327	2 935 361
Drop-outs from Remedial Classes	-	4 5 856	-	406 696	892 552
Drop-outs from Follow-up Classes	-	262 740	-	179 578	442 318
Number of Centres in Operation	34 559	18 536	11 048	10 440	74 538
Number of Instructors - Regular Deployed					
Teachers	23 454	14 717	4 477	11 169	53 817
Students	166 839	87 342	41 799	68 399	364 379
Others	51 502	28 529	11 717	28 283	120 031
Total	241 795	130 585	57 993	107 851	538 227
Materials distributed to Centres					
Primers	3 971 243	-	2 055 713	-	6 026 956
Follow-up books	-	5 498 435	3 864 840	297 900	9 661 175
Chalk - gross	52 124	62 462	89 744	100 210	304 540
Exercise books	20 000	-	29 886	-	49 886
Blackboards	5 274	10 000	24 563	-	59 837
Pencils + Ball-points (gross)	12 857	-	1 620	-	14 477
Nationality languages used	5	5	5	5	

THE STRUCTURE OF THE LITERACY CAMPAIGN PROGRAMME 1979 - 1987

YEAR	ROUND	DATES	PHASE (1)	MAJOR CHARACTERISTICS OF STAGES
1979-80	1	July 79 - Sep 79	1	First Stage
	2	Oct 79 - Mar 80		The achievement of literacy in urban areas
1980-81	3	May 80 - Sep 80	2	
	4	Nov 80 - Mar 81		
1981-82	5	May 81 - Sep 81	3	
	6	Nov 81 - Mar 82		
1982-83	7	May 82 - Sep 82	4	Second Stage
	8	Nov 82 - Mar 83		a six-year attack for the achievements of literacy in rural areas
1983-84	9	May 83 - Sep 83	5	
	10	Nov 83 - Mar 84		
1984-85	11	May 84 - Sep 84	6	
	12	Nov 84 - Mar 85		
1985-86	13	May 85 - Sep 85	7	
	14	Nov 85 - Mar 86		
1986-87	15	May 86 - Sep 86	8	
	16	Nov 86 - Mar 87		
1987	17	May 87 - Sep 87	9	
	18	Nov 87 - Dec 87		
				Universal Literacy

INTERNAL PROGRAMMING FOR ROUNDS AND PHASES OF THE ETHIOPIAN NATIONAL LITERACY CAMPAIGN 1982-1987 (A CONTINUOUS CYCLE OF ACTION) (2)



(1) Mainly those who were not registered in the Attack Round

(2) The objective is that the maximum number of members of the community pass through the various stages - Initial Course - Follow-up - (if necessary, Remedial) - Post-Literacy and Continuing Education

LITERACY IN TANZANIA

Since independence in 1961, Tanzania has made significant innovations in the education system inherited from the British. Tanzania's educational reforms have derived their inspiration and driving force from political ideology in the country.

Soon after the Arusha Declaration on Socialism and Self-Reliance was announced in 1967, an educational policy was declared which would translate the political philosophy to an educational policy. This policy is embodied in President J.K. Nyerere's paper on Education for Self-Reliance (ESR). The policy realises among other things that: all human beings are equal; that every citizen is an integral part of the nation and has the right to take an equal part in government at the local, regional and national levels.

Since the announcement of ESR, Tanzania has been progressively preoccupied with the search for more and more effective strategies for implementing this policy. As we aspire to build a socialist state, we realize that the achievement of this kind of development requires mobilization of all human resources for the task of social, cultural and economic transformation. But these human beings need education to be equipped with desirable skills, knowledge and attitudes which can help in the transformation process. Socialist education means that education has to be provided to all people, that is all sexes, the young and the adults.

By so doing the country will have all the people participate in the development and decision making of the country. Education therefore becomes an integral part of socialist development.

Education, that is the transmission of knowledge, skills and attitudes, will depend very much on the quality and quantity of teachers. In the light of these developments, the Ministry of National Education in 1969 re-defined the general aims of teacher education so that they accommodate our new policy of Ujamaa and Self-Reliance. These aims were re-defined as being:

1, To educate students in the true meaning of the Tanzanian concept of Ujamaa.

2. To train students to be dedicated and capable teachers with understanding of, and care for, the children placed in their charge.

3. To deepen the students' own general education.

It can be seen, therefore, that the first aim expresses in a nutshell what our policy of education for self-reliance in the context of Ujamaa should try to achieve.

The training of teachers in Tanzania Mainland is carried out in 36 Colleges of National Education scattered all over the country. The method used in training these teachers has always been predominantly college based. It was traditional and beset with the usual problems of an inadequate supply of man-power to cope with the ever-expanding system of basic education. Lack of equipment, materials and other facilities and rising costs, have tended to compound the problem. Students who receive training as teachers in these colleges are recruited from three main levels of education. The first group is made up of students who have completed seven years of primary education. These attend a three-year course and on successful completion of their course are certificated as Grade C teachers. The second group consists of students who have completed four years of secondary education. These undergo a two-year course and on successful completion of their course, are certificated as Grade A teachers. The third group consists of students who have completed six years of secondary education and undergo a two year course after which they are certificated as Diploma in Education graduates.

While Grade A and C teachers are assigned to teach in Primary Schools on completion of their respective courses, the Diploma in Education graduates are assigned to teach in either secondary schools (Form 1 - 4) or in Colleges of National Education and Folk Development Colleges. During training, these student teachers receive amongst others, instructions in Political Education, Principles of Education, Educational Psychology and School Organization. In addition, the Diploma in Education students specialise in two teaching subjects which are taught at the secondary education level, and the grade A and C students receive instructions in all subjects taught at the primary education level. Emphasis during the course is put on methodology.

The evaluation component in teacher education has deviated somewhat from the tradition since 1970 in that firstly, students are assessed on their ability to teach during single lesson teaching practice and block teaching practice and secondly they are assessed on their character. Equal weighting is given to each of the 3 areas of assessment.

Other teachers for secondary schools and colleges of National Education are trained at the University of Dar es Salaam, where they study Education concurrently with their degree subjects.

The output of teachers from the colleges has never satisfied the teacher demand in the respective institutions where they are required. At the end of 1974 the total enrolment of primary level teacher trainees in 31 Colleges of National Education was 7 217 and the output in that year was 5 186 while the shortage stood at 3 000 teachers. But the problem of shortage of teachers was made more grave with the decision and directive to implement Universal Primary Education (UPE) by 1977 instead of the planned target of 1989. As a direct consequence of this decision, the Ministry of National Education had to revise its

primary school teacher training programme since the success of the UPE programme hinged on the increase of the number of teachers. As such, our training institutions faced the challenge of producing more teachers within a shorter time so that these could render the much needed services.

Tanzania has been striving to build a socialist self-reliant society. The strategies adopted in pursuit of these objectives vary but all of them are aimed at the liberation of men.

Hence there have been many socio-economic reforms, policies and declarations, e.g. Socialism and Rural Development (1967), TANU Guidelines (1971), the policy paper on "Agriculture is Politics" (1972), Small Scale Industries (1972), Ujamaa Village and Village Act of 1975 and the policy paper "Everyone must Work" (1976). These are further interpretations of the Arusha Declaration. All focus these policy guidelines on the development of Man.

From a theoretical stance UPE in Tanzania could be analysed from a social-political model: a social-political model in the sense that since independence the peasants had been urged by the government to live in villages so that basic services could easily be provided. By 1974 90 per cent of the rural population were living in villages.This enabled the government to provide basic services, such as water, health and education to the villagers easily. However, one of the most important elements for successful implementation of UPE is the availability of teachers to effectively man the primary schools. With an annual output of 5 000 teachers from the 36 Colleges of National Education eight years would be required to train 40 000 teachers required for UPE Due to time and severe financial constraints the Ministry of National Education had to break away from the orthodox approach of training teachers. The alternative approach in the training of teachers known as the Distance Teacher Training Programme was adopted.

In 1976 the first batch of 13 510 students were selected for a three year training programme. The students were those who had completed primary education and had indicated that they were intrested in the teaching profession.

The trainees teach only half of the teaching load of the qualified primary school teachers. In 1977, another batch of 13 500 were recruited into the programme and the last batch of 18 627 was selected in 1978.

The training of these teachers is a five-pronged strategy which includes:

(i) Correspondence education: in pedagogy, Kiswahili and Mathematics and their teaching methodology.

(ii) Tutorials: here the trainees meet twice or three times a week with their village tutors (these are qualified and experienced primary school teachers who received an initial 8 week course on distance teacher education)

and carry out discussions based on their correspondence education; discuss and analyse problems related to their teaching practice and carry out primary school curriculum analysis.

(iii) Radio programme: there are regular broadcasts based on the teacher education programme. Each of the 2 000 school-based training centres has a transistor radio for this purpose.

(iv) Teaching practice: the trainees are required to teach 15 to 24 periods per week under the supervision of their village tutors and other qualified primary school teachers.

(v) College seminars: at the end of the three years the trainees hold a six-week seminar in teachers' colleges. During the six weeks, the trainees get an opportunity to revise the major topics they have learnt. They prepare instructional materials for their own class teaching; moderation of the trainees' teaching ability is carried out and at the end of the seminar they sit for the final written examination set and administered by the Tanzania National Examining Council.

In an economically poor nation like ours, this method of training teachers has proved to be less expensive than the conventional approach. In fact its cost is about a third of the traditional method.

An evaluation system was built into the programme from the beginning. The teaching practice of the trainees is assessed by qualified experienced ward level tutors and each year the trainees sit for an annual test.

The correspondence education is evaluated and reports submitted to the Regional Education authorities and the Ministry of Education for their information, decision and action. In addition, the 36 Colleges of National Education have been assigned the duty of arranging staff visits to the village or primary school based training centres. They carry out on the spot evaluations and provide professional advice to both the village tutors and the trainees. The final examination results of the training programme are encouraging and are shown in Table 1 below:

Table 1

YEAR	TRAINEES EXAMINED	TRAINEES PASSED	PERCENTAGE OF PASSES
1976 Group	15 510	12 470	97.1
1977 Group	13 500	18 905	93.9
1978 Group			-

The results of the 1978 group are still awaited, since they did their final written examinations in June this year (1981).

The above highlights on pre-service teacher education show that the coming years call for a consolidation in teacher education so that it surpasses survival quality and reaches optimal quality

Since 1967 the Ministry of National Education has had a keen desire to conduct more in-service programmes for the serving teachers. However, a more systematic in-service course, started in 1970 through a joint programme between Tanzania and UNICEF and UNESCO and known as MTUU was initiated. This programme stimulated the desired changes in Teacher Education Reform. The programme carries out micro-researches on primary teacher education. The findings and recommendations for alleviating the problems are imparted to teachers during short courses organized twice a year, (June and December) when the Colleges of National Education are on holidays. So far 20 150 primary teachers have attended such in-service courses. This number is quite small given the number of teachers in posts (82 400 - Ministry of National Education statistic)) that needed such teaching. A more comprehensive in-service programme that was started last November, (1980) aimed at re-training all the primary school teachers within twelve years.

The in-service programme which has twin objectives of strengthening professionalism and raising the academic quality of the teachers is being delivered through correspondence education and residential courses.

After the identification of learning needs of the teachers, correspondence materials were produced. Teachers are required to register for a nine month correspondence course. The content of the course is both academic and professional.

On successful completion of the correspondence course the teachers will attend a three months course in Colleges of National Education. The Ministry of National Education has ear-marked 18 Colleges of National Education with a total capacity of 2 710 places for the purpose. On successful completion of the in-service course the teachers will be given one salary increment as a material incentive. As the whole programme is still in an embryonic stage it would be difficult to assess its effectiveness and efficiency.

In spite of a measure of success that we have achieved in fulfilling certain aspects of our goals in Teacher Education, our approach has generally been fraught with problems. We have accepted the policy of ESR, and have been responsive to the changes and challenges advocated in this policy when developing our curricula; we have however, been slow in affecting a prompt reformation to fit in with this new thinking.

We have also experienced the problem of conservatism in our educational policies. In this respect there exists amongst our school leavers the problem of looking down upon the teaching profession, compared to other careers that can be offered. Since a teacher is one of the most crucial agents of change in our society, we are trying

our best to improve our education system by insisting on recruiting quality students of teacher education.

Historical Aspect of Adult Education in Tanzania

For many years, education has been part of development imbalance. This imbalance started during the early days of colonialism.

The British colonialists educated a few people and stressed educational values appropriate to their needs in order to get administrative assistants who could carry out instructions of the colonial government. Thus school education for a few people was introduced. Adult education was also introduced on an ad hoc basis to continue the education of the privileged few who had been educated through the formal system of education. Ignorance continued to be rampant among the rest of the population. Some religious organizations also introduced adult education but this was also largely for converts to enable them to read religious literature.

After achieving independence in 1961, the responsibility to mobilize people for social and economic development was placed under the Ministry of Community Development and National Culture. The main activities carried out then were: to organize some literacy classes, and self-help projects related to building roads, wells, latrines, houses and others. This responsibility was later placed under the Ministry of Regional Administration and Rural Development in 1965.

On the 12 May 1964 the President, Mwalimu J.K. Nyerere said: "The purpose of the government expenditure on education in the country in the coming years must be to equip Tanzanians with the skills and knowledge which are needed if the development of this country is to be achieved. First we must educate the adults for our children will not have an impact on our economic development for five, ten or even twenty years." The value of adult education in Tanzania was beginning to take shape. Its importance is further highlighted in the policy paper on Education for Self Reliance (ESR). That was referred to earlier in this paper. With this policy therefore, adult education becomes very important and it has gained a lot of support from the Party and the government. For example, President J.K. Nyerere himself in his speeches and statements has often emphasized the importance of adult education for development. In a speech made on New Year's Eve of 1969, the President explained to the nation the importance and objectives of adult education in Tanzania. He summarized the aims of adult education as follows:

(i) to shake ourselves out of resignation to the kind of life Tanzanian people have lived for centuries;

(ii) to learn to improve our lives;

(iii) To make everyone understand our national policy of socialism and self-reliance.

In this speech he declared the year 1970 an adult education year. This marked the beginning of a national literacy campaign in Tanzania.

The National Literacy Campaign

With the clear recognition of Adult Education as an important factor for Tanzanian development, Tanzania embarked on a country-wide literacy campaign in 1970, The reason behind this move was that most of the adults who were to be educated through adult education were illiterates. It therefore became necessary to integrate adult literacy learning with adult education. Literacy is a communication skill which opens the door to more learning. Literacy learning is, therefore, an important component of adult education.

Efforts to eradicate illiteracy

(a) Reorganization of administrative structure In July 1969 Adult Education activities were transferred to the Ministry of National Education from the Ministry of Regional Administration and Rural Development.

This change put all matters concerning education for the young and adults under one ministry.

A directorate of adult education was formed within the Ministry of National Education. Later on in the 1970s, regional, district, divisional and ward level adult education co-ordinators were appointed for easy co-ordination of adult education activities from grass roots level to national level. This structure is reinforced by adult education committees which have been set up at all levels, including an adult education committee at literacy level. The structure is linked to the main structure of decentralization in the country. For example, the regional adult education co-ordinator works under the Regional Development Director who is responsible for all development activities of the region. The structure is therefore integrated at all levels to simplify solutions of problems which require co-ordinated and integrated efforts.

(b) Training of adult education co-ordinators In early 1970 a crash programme to train all adult education co-ordinators was launched. Sixty-two officers attended a concentrated three months course at the Kivukeni Ideological College. The courses were conducted by the Institute of Adult Education, the Kivukeni College and the Ministry of National Education. The course covered the history,

philosophy, methodology and organization of adult education.

By mid 1970, about seventy-one adult education co-ordinators had been trained and posted to various regions and districts of the country.

In turn, the co-ordinators assist in the teaching of teachers in their respective districts to help to teach the adults. Tanzanian primary and secondary schools and Colleges of National Education are also charged with the responsibilities of providing adult education to Tanzanian adults. When these institutions are used thus, they are called adult education centres - and exist in every primary school in the country.

In the meantime, adult education personnel are trained at the Institute of Adult Education which offers a Diploma course in adult education for a period of two years. The University of Dar es Salaam also offers an optional course in adult education. In addition, short seminars are conducted whenever there is need and these normally last two to four weeks.

The trained personnel together with efforts contributed by the Party and government in mobilizing the people, helped significantly in embarking and carrying on the implementation of literacy activities in the country.

(c) Eradication of illiteracy in six districts Having seen positive reactions towards the eradication of illiteracy, in December 1970, Mwalimu J.K. Nyerere made a second appeal to the nation to carry adult activities even further. He directed that efforts should be made to eradicate illiteracy in six districts by 1971. The districts were selected for the reason that due to their natural favoured conditions, it would be faster to eradicate illiteracy in these than in other districts.

Mass mobilization by the Party and government officials was carried out in the selected districts.

Adult Education committees, the Party, the government, voluntary organizations and individuals helped in implementing the heavy task of eradicating illiteracy. All the necessary learning materials like books, pencils and others were distributed free to the adult literacy learners. At the end of six months, proper assessment of the achievement of the six districts was not conducted due to

various unforseeable problems. However, the experience gained helped to plan further for the national literacy programmes.

(d) The Party (TANU) Resolution towards eradication of illiteracy

In addition to the President's speeches, the political Party (then TANU) showed particular interest in adult education and at various times it contributed a lot in mobilizing people and in formulating policy issues for adult education. One of such contributions was the declaration to eradicate illiteracy in the whole country by 1975. The declaration was made during TANU's biennial conference of 1971. Literacy activities therefore gained more support and the activities have managed to continue nationally up to the present time.

(e) Assessment of the National Literacy Through most of the campaign, literacy learning was linked to other adult education programmes such as agriculture, health, political education, rural construction, nutrition and others. The aim of such a linkage was to make literacy functional in contributing to development.

When these campaigns were first started in 1970, a total of 5 255 560 adults were found to be illiterate. As a result of continuous literacy programmes, enrolment of the adults into literacy classes increased year after year as follows:

Table 2

Enrolment in the Adult Education Programme by year

YEAR	ENROLMENT	YEAR	ENROLMENT
1970	261 369	1974	3 303 103
1971	908 351	1975	5 184 982
1972	1 508 204	1976	5 255 560
1973	989 910	1977	5 819 612

The assessment of the achievement of literacy as a result of the campaigns was done by administering literacy tests. Three literacy tests have so far been administered. The first test was administered in August 1981. All these tests were based on a document issued by the Tanzania UNDP/UNESCO literacy Project, Mwanza in 1974, which argued the definition for literacy to be as follows:

(i) A person is literate if he is able to read and write a letter within the family, is able to locate streets, buildings, etc., observe danger

warnings in the streets and at work; follow simple directions in many everyday situations, be able to read a newspaper to keep up with current happenings and to obtain information; be able to keep records; be able to read "how to do it yourself" books and little books on better living, better foods, better ways of farming, etc.

(ii) An individual is literate when he has acquired the essential knowledge and skills which enable him to engage in all those activities in which literacy is required for effective functioning in his groups and community, and whose attainment in reading, writing and arithmetic makes it possible for him to continue to use these skills towards his own life and community development.

(iii) Adult literacy, an essential element in overall development must be closely related to economic and social development priorities and to present and future manpower needs. All efforts should therefore tend towards functional literacy. Rather than an end in itself, literacy should be regarded as a way of preparing man for social, civic and economic roles that go beyond the limits of rudimentary literacy training consisting merely in the teaching of reading and writing the very process of learning acquiring more information that can immediately be used to improve living standards; reading and writing should lead not only to elementary general knowledge but to training for work, increased productivity, a greater participation in civil life and a better understanding of the surrounding world and should immediately open the way to basic human culture.

Various levels of achievements of functional literacy were also adopted as follows:

Level I A participant who has enrolled but must have attended 2/3 of literacy sessions in any one year of literacy activities.

Level II: A participant who qualifies for level I above, but who also has successfully passed one or both tests for the following sub-levels:

Sub-level (i): A person who is able to recognize words and/or symbols, writes letters of the syllables, writes numbers and/or arithmetic signs including mental calculations.

Sub-level (ii): A person who is able to read and write a short, simple, meaningful sentence, and can add and subtract one figure numbers.

Level III: A person who qualifies for level II above, but who also has successfully passed one or both tests for the following sub-levels:

Sub-level (i) :A person who is able to read and write a short meaningful sentence, and add and subtract two figure numbers.

Sub-level (ii):A person who possesses mastery over symbols in their written form, or is able to encode and decode written messages. Such a person should be able to perform the following: be able to read fluently a simple text with understanding (the text itself being based on common syllables and vocabularies in the functional primers related to the most frequent syllables and vocabularies used in the Swahili language). He should also be able to write a simple message or passage; add and subtract three figure numbers; multiply two figure numbers, and divide by one figure.

Level IV: A person who continuously uses the acquired literacy skills. Such a person should have qualified in level III above but also should be able to read and write messages; be able to read a newspaper, to keep up with current happenings and obtain information: is able to read "how to do it yourself" books, little books on better living, better food, better ways of farming, etc., and be able to keep records and solve simple arithmetic problems. He should be able to keep a simple book of accounts on income and expenditure.

Those participants who achieve levels III and IV are considered to be literate. These new literates are expected to retain the skills taught while at the same time they acquire new knowledge and skills so as to avoid any possibilities of lapsing into illiteracy.

During the 1975 and 1977 literacy tests, the results showed that a total of 2 210 407 adults achieved literacy, thus reducing the national illiteracy rate from 69 per cent to 27 per cent. The results of the national literacy test administered in August 1981 have yet to be processed.

The implementation of UPE policy will also help towards achieving literacy. However, much is yet to be done if permanent literacy is to be achieved. There is need, therefore, to establish well planned activities for continuing education.

Some of these activities have been established as follows:

(a) Rural libraries: Public libraries in Tanzania are situated in towns serving primarily the urban population. National efforts towards the eradication of illiteracy have necessitated the establishment of rural libraries. The aim of establishing the rural libraries is to provide reading materials for the newly literate so that they improve their reading skills. The libraries are also intended to help disseminate useful information to the rural people.

Since their establishment in 1974, their spread to the rural areas has been a gradual process.

It started first with some libraries at district headquarters, then they spread to divisional level. In the meantime there are 2 781 libraries situated at ward level. The ultimate goal is to have at least one library in every village.

In the Tanzanian context, a rural library implies a simple building, with simple furniture which can be obtained locally, and is stocked with various books of different titles. The recommended number of titles is 500, this however can be expanded in relation to the building and availability of books. Most of the rural libraries are housed in existing public buildings in the wards such as schools, Party offices and others. The existing plan is to have every village build its own building based on self help. Every library has a librarian, and most of them receive a short training of about two weeks. The librarians help to issue books to the adults and also to circulate them whenever necessary. The government has issued one bicycle to be used by every librarian to circulate books. Besides issuing books, they have been also been trained on how to organize and manage discussion groups for the library users.

The success of rural libraries in Tanzania will depend on the expansion so that every village gets a library. At the moment it is unlikely that every new literate adult uses a library. This is because libraries are situated at ward level which is geographically a big area for all people to be covered. Much of their success will also depend on the availability of appropriate and sufficient books.

(b) Zonal Rural Newspapers With the effort of promoting literacy, the government has established zonal rural newspapers. The general objectives of the newspapers are to promote literacy and to disseminate information useful for development. For that purpose the country has started newspapers in seven zones. Each zone serves an average of three regions.

The first zonal rural newspaper which started to operate in the country was "Elimu Haina Mwisho" (meaning "education has no end"). The newspaper was established by the government with some assistance from NORAD and UNESCO. The newspaper serves the regions which were under the then UNESCO Experimental World Literacy Programme. Following the model of Elimu Haina Mwisho newspaper, the Ministry of National Education has established other zonal rural neewspapers as follows:

TUJIELIMISET (meaning "let us educate ourselves"). This newspaper was established in 1979 to serve the Northern Zone to cover Tanga, Kilimanjaro and Arusha regions. The centre of the newspaper is situated in Moshi town in Kilimanjaro region.

JIENDELEZE (meaning "develop yourself"). This newspaper was established in 1979 to serve three regions in the Eastern zone. The regions are Dar es Salaam, Coast and Morogoro. The centre of the newspaper

is Morogoro.

Other newspapers were established in 1980/81. They are:

TUJIFUNZE (meaning "let us learn") for the Southern zone covering the regions of Lindi, Mtwara and Ruvuma. The centre of the newspaper is Songea.

NURU YETU (meaning "our light"). For the Southern Highlands zone covering the regions of Iringa, Mbeya and Rukwa. The centre of the newspaper is Mbeya.

ELIMU YETU (meaning "our education"), for the central zone covering the regions of Dodoma and Singida. The centre of the newspaper is Dodoma.

ELIMU NO BAHARI ("Education is like an Ocean"). For the western zone covering the regions of Tabora, Shinyanga and Nigoma. The centre of the newspaper is Tabora.

All the newspapers are produced monthly and the circulation is 25 000 copies. The circulation of Elimu Haina Mwisho newspaper is now 100 000 copies. All the zonal newspapers are sold at twenty cents per copy. The charge is not enough to meet production costs; it simply helps with postage of the newspapers to the rural areas.

(c) Radio Education Radio education programmes to promote literacy are conducted for the whole country. The programmes are prepared by the national literacy centre in Mwanza. The programmes mainly emphasize post-literacy programmes and special programmes for literacy teachers. The Ministry of National Education headquarters also broadcast motivational and publicity programmes for the adult population.

More than 7 000 radio sets have been distributed to adult literacy learners for group discussion of the radio programmes.

All radio listening groups have been provided with timetables for radio broadcasting. All programmes are broadcast in Kiswahili.

(d) Post literacy groups In addition to rural libraries, rural newspapers and radio education, special programmes for post literacy have been established. Reading materials of various kinds have been prepared specifically for the new literates who have reached levels III and IV during the national literacy tests. The books specialize in agriculture, home economics, political economy, political education, health, crafts, geography, history, English, Kiswahili language and mathematics. The books have been written for different stages of post-literacy programmes. Various people such as teachers, other workers, national service, students, and other

institutions have been asked to help in running post literacy courses.

(e) Folk Development Colleges Folk development colleges have been established as rural training institutions. There are 52 folk development colleges in various districts. The aim however is to have at least one college in every district. At the moment there are 111 districts in the country.

The colleges train rural people in various specialities such as agriculture, home economics, accountancy, economics, national culture, handicrafts and political education. Other courses are also conducted following identified needs of the districts. The programmes therefore cater for a cross-section of people, that is, those who have attained levels III and IV of literacy to rural workers such as village managers, shopkeepers, ward co-ordinators and others.

All people receiving training in Folk Development Colleges are in turn expected to conduct training of adults in their respective villages.

Adult Education in Tanzania is a political as well as government commitment. The success achieved so far is attributed to the people's ideological consciousness.

Experience has shown that to run a literacy campaign is not a simple task. Together with the need for Party and government commitments, it requires long term planning so as to achieve a permanent and continuous system of educating adults by taking into consideration lifelong education, Adult education programmes can no longer be run on an ad hoc basis.

SECTION IV CURRENT PROGRAMMES

TEACHER EDUCATION IN ZIMBABWE

Dr. E.J.Chanakira
Ministry of Education and Culture

Teacher Education in Zimbabwe covers many historical, social, economic and political facets. It is therefore necessary to highlight focal points requiring attention, reorientation, changes in attitude, reorganization, and comprehensive overhaul to meet demands of a new educational philosophy. Teacher training deals with the fullest probable education of the educator.

Colonial forms of teacher education concentrated on the three Rs with heavy emphasis on ability to read the Bible. Because the approach had its purpose it is crucial on our part to understand that our teacher education programmes should also aim at achieving specific objectives within national development plans. The periods 1920-21 and 1923-24 are covered by the Phelps-Stokes Commissions (Lewis 1962) which marked initial comprehensive thinking with regard to training of teachers in Central Africa. The Commissions visited East, Central and South Africa in 1924, emphasizing the production of teachers who would do more than merely teach literacy and western skills. The main focus was on turning out teachers who would carefully conserve all the healthy elements of social life. "The training should be arranged that as a result of their work the whole community should advance." (Fletcher, 1958)

Since trainees were products of colonial schools their training was inevitably elementary, with heavy emphasis on drills, rote-repetition and the careful following of uncreative laid down patterns of instruction.

Teacher's Colleges

A teachers' college is an institution for instructing in the principles and practice of teaching individuals who are preparing to become certificated teachers in schools and for supplementing through in-service courses their education when the need arises.

Training Verses Education

It is crucial that foundation studies be relevant to establish a firm basis in the understanding of one's educational system. Education in the context of teacher preparation is very often contrasted with training. Generally speaking it refers to those courses primarily directed at making the teacher a better man. Training is mainly concerned with making the trainee a better teacher. Hence all teachers are exposed

to courses in psychology, philosophy, methodology, economics, sociology, current educational problems, nature of our society, general or functional English, the community, national projects and current affairs. Mannheim considered "That the training of teachers should no longer be concerned primarily with the tricks of the trade and with method, but rather with the fullest possible education of the educator, with his social education and with his education for living." (Morrish, 1967) It is important for one to know the variables operating in one's society. By doing so one ultimately understands the contextual background related to national development and the reason for long term educational objectives.

Recent research has suggested that education should have a broad base, even at lower levels. The same can be said of teachers. All teachers, particularly those training to teach in the secondary sector, should specialize in the teaching of at least two subjects at advanced level. The strategy does not only facilitate teacher development but it will also assist to deal with teacher shortage problems in Zimbabwe. Specializing in one subject is a luxury we cannot afford at the moment. Achievement of the right balance between personal education and professional training is essential.

Present Training

Teacher Education in Zimbabwe is contained within a tripartite organization, consisting of the Ministry of Education and Culture, the University of Zimbabwe and the Teachers' Colleges.

The teachers' colleges can be classified variously as those belonging to Government and those operated by private authorities, or according to whether they are in a scheme of association with the University or not, or yet again according to whether they produce teachers for primary schools or for both. The present position can be summarized as follows:

College	Level	Status	Controlling Authority	Present or Planned Capacity	Potential Annual Output
Gwelo	Secondary	Associate	Government	900	450
Hillside	Secondary and Primary	"	"	450	225
Mkoba	Primary	"	"	630	315
Umtali	"	"	"	630	315
Seke	"	"	"	630	315
United College of Education	"	"	Private	630	315
Bondolfi	"	Non-Associate	Private	300	150
Morgenster	"	"	"	300	150
Nyadiri	"	"	"	300	150

Seke is a new college which took in its first students at the beginning of 1981. The United College of Education in Bulawayo is to be taken over by Government at the beginning of 1982. Bondolfi, Morgenster and Nyadiri are three smaller colleges situated in rural areas, controlled by different church groups and are all negotiating for associate status. The college at Hillside, Bulawayo, will in 1982 deal with the training of secondary teachers only.

The duration of the courses and the entrance qualifications are the same at all colleges. Each offers a 3 year course, part of which is spent in schools on teaching practice. It is proposed from 1982 to adopt a teaching practice pattern which will have each student in a school for three of the nine terms, and at the same time to modify the nature of the practice so that the student effectively replaces a teacher during that time. Thus all third-year students will be out on teaching practice during the first and third terms, and their places will be taken in the schools during the second term by second-year students. There are several potential and real advantages to this system.

1. It will give a badly needed injection of at least partially trained teachers to the schools sooner than does the conventional pattern currently in use.
2. It will shift the emphasis in our teacher education from theoretical to applied education, and altogether give a closer and more obvious link between theory and practice.
3. It could have a marked impact on the educational system as a whole as a wider range of practitioners, including headmasters and Education Officers, assume responsibility for the supervision, development and assessment of the students, and in the process themselves become exposed to new trends and the processes that go into the making of a good teacher.

4. It will overnight, and without any additional building, increase the capacity of the colleges by 50 per cent as one year-group will be out of residence at all times.

The conditions for entry to all the colleges have, over the past few years, included:

1. five 0 level passes, including English Language;
2. at least one year to have elapsed since writing 0 level;
3. minimum age of 18.

During this past year these have been modified to include six passes with a symbol of 6 or better in the Grade Eleven examination, and the requirements in 2 and 3 have been discontinued. It is also proposed to do away with the requirements of a pass in English Language, and to specify instead a pass at 0 level in a language.

University of Zimbabwe

To understand the role played by the University of Zimbabwe in teacher education it is necessary to give a brief account of the organization of the faculty of education. The faculty is made up of the Department of Education, the Institute of Education, the Institute of Adult Education and the Science Education Centre.

The Department of Education is responsible for post-graduate teacher training and education, and it prepares students for the Graduate Certificate of Education and offers courses leading to an M.Ed, with a particular emphasis on Curriculum Studies. The faculty has a chair in Curriculum Studies. At the beginning of 1981 a special appeal was made to newly graduated students to enter teaching directly to supplement the supply of teachers in the vastly expanded secondary school system. A considerable number of students responded to this appeal. Only a comparatively small group is following full-time course this year in 1981. They are probably the last group to do so, as a different in-service course is being offered from next year. This will be specifically geared to the needs of new graduates going directly into teaching. This sychronises the approach of and service offered by the University Department of Education with the wishes of Government.

In addition to its normal involvement in research, the Institute of Education itself is carrying out a three-fold function of examining, teaching and advising in the field of teacher education, mainly through the colleges already described. Professor S. Orbell, the Director, describes the scheme of association of a college with the Institute as one in which the university agrees to establish a particular award for which it is not itself teaching, and to grant and administer a scheme of examination of students submitted for that award from an institution approved by the Senate of the university. The university requires, for that approval, to satisfy itself that:

1. candidates have reached a specified minimum academic standard in entry (the five 0 level requirement);
2. the course and syllabuses being taught meet the necessary standards;

3. the course extends over a stipulated number of years or terms;

4. the teaching staff are adequately qualified, and

5. the college itself is adequately equipped for the purpose of the course.

Thus the Institute fulfills its role as very largely a federation of the teachers colleges themselves. This is a loose federation in that each college is allowed considerable autonomy in the development of its courses, but ultimately, for the associate colleges, it all comes together in the Academic Board of the Institute.

The Science Education Centre plays a key role in the training of science teachers, both for graduate teachers through the Grad.C.E., and for science specialists through the B.Ed. This latter course would prepare a student to teach science to O level, but work is proceeding on devising a special B.Ed. course for a limited number of selected students to upgrade them to a level where they could teach one science discipline to A level.

From the foregoing it must be obvious that the university, through its faculty of Education plays a vigorous and vital role in teacher education in Zimbabwe. It is probably equally evident that it is essential that there should be close consultation and cooperation between the university and government to ensure a common purpose. This is formalised through the existence of a Liaison Committee, which consists of members of the faculty and representatives from the Ministry of Education and Culutre, and which meets regularly. Outside of this committee there is constant contact between the ministry and the various sections of the faculty, but with none more so than with the institute. It is government, by and large, which operates the colleges and determines the direction of education, yet it is the institute which monitors the courses in the (associate) colleges, does the final assessment of students and awards the certificates. It is greatly to the credit of all concerned that the system operates smoothly, and that development and change are not hampered by the duality of the influence of ministry and institute on the colleges.

The ministry operates a separate Examinations Board to service the needs of the colleges which are not in associate status with the university. This is seen as an interim function, because it is policy that all colleges will ultimately enjoy associate status.

The class and race distinctions of the past have created problems regarding salary scales, teaching practice and appointment of black teachers to white schools.

Restructuring

Part of the restructuring needed is to recreate the administrative structures in the teachers colleges.

The removal of barriers into Form I and the abolition of primary school fees as from September 1980 opened the way for a dramatic increase in school enrolments. This rapid increase has in turn resulted in an equally dramatic increase in the number of teachers required to service the system and of the teachers who are at present under-qualified and need to be upgraded. In addition, some of the teachers are academically qualified but untrained. The situation will be aggravated by the rapid increases in Form II in 1982. The integrated national teacher education programme (ZINTEC) seeks to reduce the number of untrained primary school teachers. It may eventually culminate in a permanent institution, combining pre-service and in-service training, capable of significantly contributing to the yearly production of qualified teachers via an alternative route to the traditional 3 year pre-service residential course provided by the teacher training colleges. This project is designed to provide some assistance during the institution building stage of the programme and in training some of its key personnel.

The Zintec Programme

Zimbabwe is suddenly faced with a massive expansion of its educational system due to the inflow of population from exile in neighbouring countries, together with the government's avowed policy of equalising educational opportunity through such measures as free tuition in primary education. The sudden expansion has meant an urgent need for large numbers of primary teachers. The broad objective of this project is the improvement of the quality of education provided for all Zimbabweans especially at the primary level, and in the rural areas in conformity with the policy of free, relevant and high quality primary education by improvement of the quality of the teaching force.

Structures of the Zimbabwe Integrated National Teacher Education Course

Term 1	17-week Residential Course at the Regional Teacher Education College
Term 2 3	2 terms supervised teaching with in-service correspondence work
	3 week vacation course
Term 4 5	2 terms supervised teaching with in-service correspondence work
	3 week vacation course
Term 6 7	2 terms supervised teaching with in-service correspondence work
	3 week vacation course

Term 8	2 terms supervised teaching with in-service correspondence work
	3 week vacation course
Term 10 11	2 terms supervised teaching with in-service correspondence work
Term 12	17-week final Residential Course at the Regional Teacher Education College and Final Examination

The new teacher training programme is designed to solve problems in Zimbabwe. Hence it is bound to be unique because any educational innovation is intended to solve a particular problem in a specific content. If anything, ZINTEC is an eye opener to trends in teacher education research which has indicated the superiority of concurrent teacher training over pre-service programmes which are almost always divorced from practical field experiences.

ZINTEC Training Centres (Layout) 1980

REGION	REGIONAL (SUPERVISION AND ADMINISTRATIVE) CENTRE	TRAINING CENTRE/COLLEGE
Manicaland	Borderhills School	Marymount
Mashonaland	Livingstone School	Morgan
Matabeleland	Ashborne Hostel	United College of Education (3rd term, 1981) Gwanda (with effect from 1/1/82
Midlands	Schools Regional Offices	
Victoria	Schools Regional Offices	Andrew Low

ZINTEC Outputs (Graduates) - January 1980-December 1981

TRAINING CENTRE/ COLLEGE	May, 1980	August, 1981	Nov/Dec, 1981	TOTAL
Marymount	300	250	260	810
Morgan	300	200	210	610
United College	-	-	110	110
Andrew Low	200	200	200	600
Grand Total	700	650	780	2 130

The total of 2 130 semi-qualified teachers by the end of 1981 perhaps indicates the crucial role of ZINTEC in Zimbabwe education. One year of ZINTEC has in fact produced more than double the number that the formal primary colleges would normally produce after 3 years. One has virtually to accept either of the following premises, namely that (a) teacher education ends on graduation day or (b) teacher education continues up to the day of retirement. If one accepts the

latter view one directly acknowledges continuous staff development which is not terminated on graduation day.

ZINTEC National Centre

The director co-ordinates the administration, production and evaluation components of the national centre.

Production

This represents the professional output on which the entire course depends, and is largely self-explanatory in the structure diagram.

At the lowest professional input level the grade is shown as lecturer or senior lecturer so as to create a reasonable career prospect for the person who finds a particular niche in this specific area. It will also facilitate the free interflow of personnel between the colleges and training centres on the one hand, and the National Centre on the other.

The printing unit seems at first consideration to be better placed in Administration, but consultations in this field indicate that it is very desirable that the editing/compilation/proof reading branch should have free and possibly authoritative, access to the printing. Needless to say the correspondence material that lands in the hands of the trainees is very important. Through it we can build or destroy the education system.

Teacher training colleges must produce teachers who understand the problems, philosophy, culture, objectives, needs and the final products of a Zimbabwean education system. Indeed, if education in this country is intended to solve Zimbabwe's problems we must design and implement a Zimbabwean teacher training model.

THE ZIM-SCI PROJECT

The increasing importance of science and its applications in the modern world, and the rapid development of technology, reinforce the case for science as an essential component of the school curriculum. It is in this light that here in Zimbabwe science is a compulsory curricular subject for all children in full-time formal education. Science is one of man's major intellectual achievements. It unfolds a picture of the physical world, enables man to extend his knowledge and to exercise some control over his environment. In consequence it is possible for him to reduce poverty, disease and other burdens which were once regarded as inevitable, and release him from some of his primitive fears and superstitions.

More important still, we do realise that as a young and developing country, industrialisation is possible only if we can increase the number of our semi-skilled and skilled workers, technicians, engineers and technologists, physicians and scientists. In order to achieve this we need a very strong base of science education. It is only through a sound education that this country can increase its numbers of qualified students for technical, technological and scientific institutions at all levels and for centres of both applied and fundamental research.

Apart from the utilitarian functions of science, I believe that science education should promote the social appreciation of science among the general public. In this regard therefore, school science must fit into the socio-economic life of the general masses of the people and, where possible have its roots in the villages out in the rural areas. Hence the need to make science a compulsory subject in schools.

The Past Science Programme

Secondary education is relatively new in this country dating back only some 37 years. When it was introduced most schools did not include science as a subject in their curriculum. Those that tried to do so only provided Hygiene which was later renamed Health Science. This consisted of the rote-learning of a catologue of diseases, their causes and control. As there was no practical work involved, this degenerated into a memory-exercise for the purpose of passing examinations.

In the 1950s General Science made its appearance in the school curriculum. However it was didactically taught, at best by demonstration by the teacher. Invariably such demonstration experiments were not experiments at all but confirmatory exercises to which the 'answer' was at least partially a foregone conclusion. Experimental headings such as "To show that oxygen is given out during photosynthesis" or "To verify Hookes Law" featured heavily. Pupils were hardly expected

to be personally involved in the real process of discovery and experimentation.

Apart from the poor teaching approach there were other factors that militated against pupil-involvement in practical activities in science lessons. These were (a) lack of adequately and purposefully built science rooms with sufficient working spaces; (b) the lack of science equipment and apparatus to allow for individual or practical work on the part of the pupils. Teachers, too, were notoriously unable to improvise in the way of science apparatus. The overall result was that science gained the stigma of being a difficult subject and only a minority of students attempted it at higher levels. Consequently, until very recently, Zimbabwe has had a paucity of science trained personnel.

Yet another factor that created problems in the teaching and learning of science was the fact that schools relied on foreign text-books which were written for schools in Europe and America. In the physical sciences this was less of a real handicap as properties of matter are practically the same in different parts of the world. However, this was a real handicap when it came to biology as several of the types of animals and plants described in the text-books for schools in temperate regions were largely foreign or unknown to a child in tropical Africa. Pupils had to learn these nevertheless as the syllabuses which were themselves of overseas origin demanded it.

The 1960s saw a dramatic change in two fronts. Namely, in the provision of science laboratories and an imporovement in the teaching methodology. Real science began to occupy a permanent place in the school curriculum. Perhaps the Sputnik age had something to do with this new development. Overseas modern teaching approaches began to make their influence felt in our school system, notably, the British Nuffield approach and various American approaches such as the PSSC (Physics) and others. Emphasis in the schools began to shift from the lecture and didactic method to that which demanded pupil-involvement in experimental activities. Holiday courses in biology, chemistry and physics were organized by overseas visitors at the university for practising teachers to familiarise them with the new approaches and, in many respects, these were very useful and beneficial. A practical approach to the learning/teaching of science became a common feature in our schools. However, because of the perennial inadequacy of science apparatus, group work rather than individual work continued to dominate in the science rooms.

A further development during this period was the broadening of the science curriculum. Other varieties of science subjects other than General Science were offered. Schools could now offer physics, chemistry, biology and physical science to their brighter classes as these were considered an adequate and appropriate preparation for sixth-form work. Although physics and chemistry as separate subjects are a better choice in terms of training for six-form, most schools considered them to be rather expensive, in that to teach these subjects they would have to purchase more expensive and sophisticated equipment than they would for physical science.

Junior Secondary School Level

At the lower level of the secondary school level an integrated science syllabus has been developed. This incorporates the essential elements of physics, chemistry and biology with a great deal of emphasis on the energy concept because we feel that this forms the basis of all science. We believe that at the junior level the artificial barriers between the three related science disciplines should be avoided. The child must look at science as a whole and not look at it in water-tight compartments. The syllabus lays great emphasis on discovery work, i.e. on child centred practical activity. A lot of examples are locally based in an effort to 'Zimbabweanise' science as much as possible.

The Zim-Sci Project

A major development in junior science is the introduction of the Zimbabwe Secondary School Science Project, code-named ZIM-SCI.

Early in 1981 the Ministry of Education and Culture embarked on a massive programme of Form 1 expansion in order to make secondary education available to as many primary school leavers as possible. In the past only 20 per cent of the Grade 7 leavers found Form 1 places. In terms of numbers this was about 17 000 to 20 000 children. This year, this figure was increased four-fold to 82 000. To accommodate this huge number, urban secondary schools were asked to treble their Form 1 intake. Where a school used to admit six Form 1 clsses, it now had to take 18 classes and resort to a system of double sessions for teaching them. Established rural secondary schools also increased their enrolment. 465 rural primary schools established Form 1 classes over and above their primary classes. These 465 centres, which became known as 'Upper Tops', are scattered throughout the country in all regions.

We as a ministry recognise the importance of science as a curriculum component and believe that it should be made available to every child. Our problem was how to make this possible in these 465 new Form 1 centres which are found in areas where there is no piped water, no gas, no electricity and no conventional laboratory. To provide a laboratory for each centre would not be feasible considering that it costs approximately $40 000 to put one up. A second constraint was the fact that these centres are staffed largely by upgraded primary school teachers, most of whom have a limited science background. Under these conditions a new approach which was pupil-centred and practical oriented, relying, as much as possible, on low cost science apparatus and on very little teacher support, was devised. The development of such a science programme is the major objective of the ZIM-SCI programme.

This low cost apparatus approach, together with its comprehensive pupil-centred study material, was a subject of research for Distance Science Teaching by the Science Education Centre (University of Zimbabwe). These ideas have now been modified and adapted for the ZIM-SCI project. This is now a joint venture between the Ministry of

Education and Culture and the Science Education Centre.

The ZIM-SCI team has produced study guides for the pupils and comprehensive guides for the teacher. The latter are intended to give the teacher sufficient background science to enable him to guide the children through their experiments. Each centre has been provided with sufficient basic kits for every pair of pupils to use in their experiments. In addition, sets of consumables and teacher demonstration kits such as burners and microscopes have been provided to each centre. Each centre received the whole package in a steel cupboard and this cost the ministry $1 600 per centre as against $40 000 were we to build science laboratories.

Before the whole project was launched, the ZIM-SCI team conducted in-service courses in all regions in order to familiarise the teachers with this new approach. Follow-up visits to schools indicate that teachers are generally enthusiastic about the project. Teachers in conventional schools have expressed the wish that they, too, would like to follow the ZIM-SCI approach. They realise that the ZIM-SCI approach is more pupil-centred and more realistic in that it does not use fancy apparatus and this makes science more meaningful to the child.

Plans are afoot to embark on the next stage, the Form II programme, due to commence in 1982. We believe that ZIM-SCI has a lot to offer to other developing countries. We believe too, that although ZIM-SCI is using low-cost apparatus, it is nevertheless not offering cheap science but real science.

In order to make science available to all, we believe that the era of fancy laboratories is out and low-cost science is the answer.

With large numbers of pupils qualifying from the primary school to the secondary, low cost science has come to stay. There is a strong possibility that what has been achieved so far may be developed further for teaching science at O level or possibly A level. Traditional science equipment is going to become more and more costly in the future particularly for developing countries whose economics may not stand the escalating prices.

So far no mention has been made of agriculture. Zimbabwe is a typical agricultural country. Its economy relies heavily on agriculture. Our school curriculum must include agriculture as a compulsory subject because every Zimbabwean child has his roots in the country. Where large scale agriculture may not be possible, it will be necessary to introduce agricultural science on small experimental units.

Efforts were made in the past to introduce practical subjects including agriculture. This did not succeed because it was intended for Form 2 Secondary school - a school that was designed for the less able child. A technical type of education was being given to children with a shaky academic background. This gave the impression that a practical education was below the dignity of the more

able child who was, instead, offered a purely academic education. We hope to enhance the image of practical subjects by making agriculture and a second practical subject compulsory in all our schools.

Recommendations Accepted by the Plenary Session of the Seminar on Education in Zimbabwe - Past, Present and Future

The Seminar accepted the aims and objectives of socialist education as enunciated by the Honourable minister of Education and Culture, Cde D. Mutumbuka, in his key-note address.

Recommendations

The following recommendations were accepted by the full plenary session of the Seminar:

1. Curriculum change
   a) curriculum must be Zimbabwean orientated and mass orientated; it must include Zimbabwe's experiences, cater for Zimbabwe's needs, and include Zimbabwe's culture;
   b) the three national languages must be included in the curriculum of all schools;
   c) from the focal point of Zimbabwe, curriculum should move out towards Africa, the Third World, and then the rest of the world;
   d) Education with Production is highly recommended by all groups;
   e) examinations need to be Zimbabwean orientated and Zimbabwe based, and evaluation must include other aspects of school experience such as service to the community;
2. Teacher Training

   The Seminar recommends that teacher training and in-service training should support curriculum change in particular because of the new political, technical, and scientific productive orientation.

3. Structural Change

   a) there be democratisation of all structure to include consultation with the community and schools;
   b) bureaucratic structures and procedures at all levels need to be revamped to suit the new political change;
   c) there must be administration and financial support for innovations;
   d) there must be community evaluation of education;
   e) there must be a unitary system of education.

4. Adult Education

The Seminar recommends without reservation that:

a) a mass adult literacy campaign be launched immediately to be completed within the shortest possible time;

b) all adult education for workers and peasants be linked to production, skill improvement, managerial improvement, and cultural activities;

c) the literacy campaign should be followed up by systematic post literacy and continuous education programmes aimed at consolidation of literacy and reinforcement of functional skills and social awareness.

5. Special Priorities

Certain priority areas have been identified as requiring special attention including:

a) the education of those whose education was interrupted by the war;

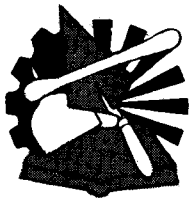
b) the education of women;

c) the education of the disabled.

6. Follow-up

The seminar recommends effective dissemination, follow-up, and feedback on the ideas discussed in the Seminar at regional, district, school, and community levels.

ZIMFEP



ZIMBABWE FOUNDATION FOR EDUCATION WITH PRODUCTION

The Zimbabwe Foundation for Education with Production was established in 1981 at the institute of the Minister of Education and Culture, Cde Dzingai Mutumbuka, with a twofold mandate: to resettle the thousands of former refugee children who had been studying in camps lished in 1981 at the initiative of the Minister of Education and Culture, and at the same time to transform the colonial education system which Zimbabwe inherited at independence. ZIMFEP was given the crucial task of pioneering educational experiments that would overcome the division between theory and practice, mental and manual labour, academic and practical subjects. This new approach became known as education with production.

These papers from a seminar entitled Education in Zimbabwe, Past Present and Future, are published in order to continue discussion and assessment of our educational system and the direction it has taken since independence. Among the papers are those presented by guests from other countries in which they examine their own efforts, successes, and failures in various sorts of educational programmes. We hope educationalists among others will find the ideas presented stimulating, challenging and relevant to Zimbabwe's struggle to transform its education system.