Education in Africa must become change-oriented, and must be based on research, experimentation, and innovation.

SINCE independence, there has been massive interest and heavy public investment in education in all African countries.

The importance of education as a basis for economic and social development is almost everywhere taken for granted. Parents build "Harambee" (self-help) schools and are ready to spend high proportions of their meager incomes to pay school fees for the education of their children. Pupils walk long distances from their homes to school and memorize voluminous chalkboard notes and the contents of partially understood textbooks in order to go over the hurdles of external examinations. Both parents and their children look at school education as the chief means of advancement on the social and political ladder, and of emancipating themselves from the drudgery of subsistence production and the restrictions of the traditional way of life.

The proportion of Government revenue devoted to education is very high, exceeding 25 percent and in some cases as much as 40 percent in a number of African countries. Future plans call for over 8 percent of the total national wealth of the continent to be devoted to education.¹

Yet in spite of this public interest and heavy investment in education, the gap between social demand for education and the capacity of African countries to provide and expand educational facilities to satisfy this demand is very wide and increasing. For example, in East African countries, less than 50 percent of the children of primary school age are actually enrolled in the publicly supported elementary schools, and the proportion of secondary age children who are actually enrolled in high schools and other post-primary institutions such as Teacher Training Colleges and technical schools, hardly exceeds 3 percent of the relevant age-group.

There is such a narrow bottleneck at the end of the primary school and at the entrance to the secondary school that African countries are already engulfed in the streams of primary school-leavers for whom neither further education nor employment opportunities

African Education

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are available. Although Africa, as a whole, is sparsely peopled in terms of absolute numbers, the population is growing at very fast rates, and the proportion of people who are children below the age of sixteen is high and is rising. Education, therefore, is likely to become available to a progressively smaller proportion of the school-age population, unless there are much faster rates of growth of African economies or unless drastic measures are adopted in other directions. The Uganda Education Commission (1963) was referring to this situation when it posed the following questions:

When over half the nation is illiterate and the people rightly clamour for education, when teachers are in short supply and inadequately trained, when government and industry demand trained recruits, when unemployment is widespread and increasing, when the nation is poor, what policy should the Government pursue?

The production of trained manpower has been the main strategy of educational planners in Africa in recent years. High level and middle level manpower is recognized as a necessary condition in the process of economic and social growth, and it is regarded as a crucial factor in establishing and maintaining effective political institutions and sound systems of government.

Personnel Needs

Emphasis is therefore being put on those aspects of educational development, such as the expansion of secondary education, which are calculated to accelerate the production of trained manpower. African Governments, with USAID assistance, are trying to accomplish this in a number of ways: by building completely new secondary schools, by upgrading existing primary and junior high schools to secondary school status, by adding extra streams and extra sessions in existing high schools and by consolidating and rationalizing the many small teachers colleges into larger and more effective units to take advantage of the economies of scale, and making some of the buildings that are freed available for conversion into high schools. The number of pupils per class has also been raised in order to make more intensive use of the teachers. The proportion of day secondary schools to boarding schools is also being raised. All these measures are aimed at minimizing the capital cost involved in the expansion of secondary education.

In spite of all this concentrated effort, the development of secondary education seems to be tortoise slow and sec-
ondary school facilities remain sadly inadequate compared with the need and the social demand.

A crucial obstacle to the expansion of education in African countries is the shortage of secondary school teachers. Greater and improved facilities for the education and training of secondary school teachers are essential if there is to be any significant increase in the quantity and quality of education in these countries. Fortunately, there has been a great deal of Afro-American cooperation in this field. For example, through the Teachers for East Africa Project, conceived at a conference held at Princeton University in 1960, young graduates, intending to teach in East Africa, were recruited in America for a number of years and are still being recruited in Great Britain and trained at Makerere University College, to teach in Kenya, Tanzania, and Uganda.

Similarly, through the Teacher Education for East Africa Project (TEEA), experienced American educators are recruited through USAID and Teachers College, Columbia University, to teach in the teachers colleges, institutes, and university departments of education in East Africa. In fact, without the services of expatriate teachers through these schemes, and similar projects such as the Peace Corps, Teach Corps, etc., it can be said that there would be few secondary schools and teachers colleges in East Africa today.

All the countries of East Africa face the problem of how the level of the quality of teaching in the primary schools can be improved. About 40 percent of the teaching force in Uganda is composed of "vernacular" teachers, who cannot keep abreast of modern educational ideas because they cannot read English or some other international language. About 25 percent of the teachers in the primary schools of Kenya have only a primary education, and no professional training. Similarly, in Tanzania, a large proportion of the teachers in the primary schools are in Grade C whose education consisted of not more than eight years of schooling, plus two years of professional training.

The result is that teaching is often formal, consisting of drill methods on the part of teachers and learning by rote on the part of pupils. Furthermore, the stale facts which are often taught and the foreign textbooks which in some cases are still being used, have little relevance to the children's interests and to the physical environment and social milieu of these countries. Similarly, at the secondary level, African education has in most cases simply followed patterns traditionally handed down by former colonial powers and greatly controlled by systems of external examinations, and the attainment of independence has so far brought about little or no change in the education systems inherited from the colonial powers.

A reappraisal of the education systems and the development of curricula which are relevant to local needs and problems, are greatly needed. The problems which East African countries face in the field of education illustrate similar dilemmas which are found in varying degrees all over Africa and indeed in all countries of the developing world. The cleavage between the hopes and aspirations of the masses of the people everywhere for education and for better education on the one hand, and on the other, the limited capacity of the educa-
tional systems to satisfy this massive demand, must be regarded as the world's number one crisis.

Hopefully, there is increasing realization of this fact in the wealthier nations of the world. The International Conference on the World Crisis in Education which brought together 170 educational leaders from 52 different countries, at Williamsburg, Virginia, in October 1967, was called at the request of President Lyndon B. Johnson, because "he felt and educators agreed, that there was need to make an assessment of the capabilities of education to meet the rising aspirations of people everywhere for a better and freer life."  

A Jump into the Future

The gap between the expectations of the people and the capability of African education systems can never be lessened, if only the traditional country-by-country, stage-by-stage, one teacher-one class approaches are going to be relied upon. Breakthroughs must be found which bypass some of the trial and error stages which have been passed through in other countries. There is need for education in Africa to become change-oriented, and to be based on research, experimentation, and innovation. There is a way in which African countries are prepared to jump into the future by adopting some of the most modern approaches in education.

Tremendous advances have been made in the United States in the field of educational technology, curriculum reconstruction, teaching methods, and research techniques which can be applied with profit to educational problems in Africa.

Because our resources are limited, not only in money and trained manpower, but also in time, because we want to develop our human resources in a hurry, how much more important it is for us to be able to use some of the latest discoveries of educational technology—programmed learning, educational radio, micro-teaching, and other small group methods, team teaching, correspondence, and other self-instructional materials, which do make the most efficient use of the world's scarcest resource—the good teacher!

Yet it is not desirable that educational materials such as programmed textbooks, correspondence courses, audio-video tapes, and other teaching materials designed for other cultures should be introduced wholesale into Africa. The introduction of such techniques and their wide application to African problems would call for the launching of on-the-spot research programs to test the appropriateness of materials developed elsewhere for use in African environments and to develop local programs.

On the other hand, there is to date hardly any information on African child growth and development on which to base suitable curricular and teaching materials for African schools. The material now used in teaching child psychology in African teachers colleges, for example, is based on the study of children in Europe and America. While, no doubt, a certain amount of this must be of universal validity, there are certain respects in which the social and physical environment of African chil-
dren can be expected to produce somewhat different patterns.

Sound education programs in Africa cannot be founded simply on hypothetical assumptions, or on the continued interpolation of data derived from children of other cultures. Thoroughgoing curricular revision, therefore, must await the results of deeper research into child growth and development in Africa. There is a crying need for psychological investigations and research with particular focus on African children—how they grow and learn in their different cultural settings.

Research of this kind is bound to be expensive, not only in terms of money, but also in terms of the scarcity of trained persons capable of carrying it out. Here then is an unlimited opportunity for international cooperation in the field of educational research, not only between Africa and the United States, but also among African countries themselves. There is an imperative need for ongoing, long-term, coordinated programs of research to provide a framework of knowledge on which to build school curricula in African countries. International assistance and cooperation are needed to provide funds, personnel, and the training of local people to undertake such research.

At the same time, educational research must cease to be regarded solely as an academic exercise in which only University professors and doctoral candidates should engage for their own disinterested intellectual curiosity. While the importance of fundamental research to extend the frontiers of knowledge is accepted, what is more needed in Africa today is research which is concerned with the practical aim of improving curricula and the effectiveness of teaching. It is essential that expatriate research workers should try as much as possible to select their research topics in terms of the needs and priorities of the countries in which the research is to be done, and to work hand in hand with local teachers and educators who know the cultures and speak the languages of the children.

**Hopeful Signs**

Research activities in English-speaking African countries are coordinated through University Institutes of Education. These Institutes are making deliberate efforts not only to raise the academic level of serving teachers, but also to produce teachers with a dynamic, problem-solving approach and forward-looking attitude, which would not only respond to research but also demand it. Planning and carrying out research activities with local teachers and teacher trainers, would greatly enhance the work of these Institutes.

Here tribute must be paid to the Carnegie Corporation of New York, USAID, and the Nuffield Foundation in the United Kingdom for the generous support they have given in the past few years toward the establishment of Institutes of Education in Africa, and toward the interchange of educational ideas among African countries. EDC (Educational Development Center, formerly Educational Services Incorporated) has given invaluable assistance in the field of curriculum research, particularly in mathematics and science by sending staff to African countries and through training local counterparts to continue the researches on a long term basis. Such activities should be
given the greatest encouragement and financial support.

A healthy trend in American Universities is seen in the recent increased inclusion of courses on other cultures. Many American Universities have now well-established programs of African and other area studies, and encourage their students and staff to visit and to do research in overseas countries. Such study tours and research could be planned with the cooperation of overseas institutions. For example, during the summer of 1967, eleven American professors in Colleges of Education, under the auspices of the American Association of Colleges for Teacher Education, spent one month at the National Institute of Education, Makerere University College, developing a course of studies focusing on African civilizations and education as part of an effort to increase and expand curricular offerings in non-Western studies on their respective campuses. They drew on the knowledge of local experts, and were able to evaluate and purchase many publications which would not have come to their notice if they had not come to Africa.

Similarly, during the same period, in cooperation with the National Institute of Education, of Makerere University College, a team of three eminent American psychologists from Teachers College, Columbia University, came out to Uganda to initiate short-term exploratory research in three areas of child growth and development. They worked with local head teachers, teachers, and student teachers, and left behind a great deal of enthusiasm in educational experimentation and innovation.

These are but a few examples of areas of cooperative endeavor which should be given the greatest encouragement. African Universities, wherever they have the resources, would be happy to provide coexaminers, advisors, or supervisors to American students doing research on African problems, and are willing to participate in projects aimed at producing audio-visual and other teaching materials on Africa.

In conclusion, it is necessary to reiterate the problem: Fifty percent of African children of primary school age fail to find places in elementary schools. About eighty percent of those who leave the primary school “fail” and cannot proceed to secondary level institutions because there are not enough places. This universal failure is a source of tension in Africa. We cannot expect to build a more stable, happier, and freer world on the backs of failures. At a time when the progress and survival of society depends on education, African countries cannot afford to have fifty percent of their manpower resources locked up in cold storage. This is why they have placed a high premium on education.

Yet the gap between people's expectation for education and the capacity of the education systems in Africa to meet this demand can never be shortened if only the traditional approaches were to be relied upon in making provision for education. Much assistance is needed from donor countries toward African education. No investment in Africa is better placed than that which is channeled through education, particularly in those areas which are calculated to help African education to become more innovative and change-oriented.