# Some Questions concerning Education and Training in the Developing Countries

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THE PURPOSES of this article are, first, to evaluate the applicability to the developing countries of some current views on the planning of education and training systems <sup>2</sup>; second, to suggest some measures which would improve the viability of education and training systems in the developing countries; and third, to indicate some areas where an intensive research attack would yield fruitful results for these education and training systems. The three sections of the article correspond in sequence to these purposes.

Since both educational and training activities are frequently carried out in one and the same institution, the allocation of institutions of learning to one or the other category is somewhat arbitrary. Medical, physiotherapy and engineering courses, for example, which are more in the nature of training than educational activities, are often given by universities, which are normally classified as educational institutions. On the other hand courses of a general educational kind are frequently given in technical institutes. For convenience, however, all primary and secondary schools are regarded as educational institutions; all subprofessional technical institutes, trade training centres, and in-plant,

<sup>&</sup>lt;sup>1</sup> International Labour Office.

<sup>&</sup>lt;sup>2</sup> Education is defined here as those activities which enable the acquisition or development of basic principles and skills which are of wide applicability in assisting people more effectively to play both their productive and their non-productive social roles.

Training is defined as those activities which enable the acquisition or development of more applied principles, and skills of a specialised nature, assisting people more effectively to play their vocational or productive social roles.

Thus, although education contains some of the distinct vocational aspects of training, it has wider implications that are also valuable. We do not want more doctors, mechanics and carpenters *per se* in the same way as we may want universal primary education or an increase in liberal arts colleges.

The essence of training, on the other hand, is specialisation in a productive skill or group of skills, whether at high or low levels. It is essentially the final phase in the learning process in preparation for work.

on-the-job and apprenticeship training systems are regarded as training institutions; while all universities and technical institutes of "professional" standing are regarded as hybrid institutions, for all that they may be administered as part of the formal educational system.

## Planning education and training systems

#### Some current views

In recent years economic research (perhaps somewhat disillusioned by development theories heavily dependent on investment in physical capital) has been more and more enthusiastically directed at attempting to clarify the role in economic development of investment in "human capital". Some activities, which have traditionally been regarded by economists as principally and directly satisfying human wants, and which have thus been classified as "consumption" activities, have been reexamined from the point of view of their ability to build up the productive capacity of human beings.

Now increases of productive capacity are a condition of economic growth, and countries committed to achieving the highest possible rates of development are necessarily interested in any activity that will lead to such increases. Furthermore, since many developing countries have large supplies of manpower but are short of physical capital, and since education and training satisfy immediate wants as well as building up productive capacity, the possibility of development through investment in human beings appears superficially very attractive.

Most consumption activities do, in fact, play some part in improving the productive capacity of the consumers concerned. Better fed people work longer and harder. The eradication of various diseases through health programmes produces similar effects, as do improvements in housing. Such programmes are particularly effective amongst people at very low standards of living indeed; but above a certain level of nutrition, health and housing, the *productive* benefits to be gained by further improvements may be rather small.

The principal "human investment" activity that appears likely to yield direct productive benefits independent of people's living conditions is education and training. Thus, the economics of investment in human capital has tended largely to concentrate on the process of building up the intellectual and manual skills of the population as a means of attaining higher rates of economic development. At the same time the traditional view of education as a highly desirable end in itself has been reinforced by the view of education as a means to a higher level of economic development. For the developing countries, for which rapid economic development can reasonably be supposed to have a very high, if not overriding, priority in policy making, this second view is of crucial importance.

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Once seen in this light education and training have become the object of increasing attention as a production process. This results from the natural desire to plan the educational and training system in such a way as to reap the maximum benefits from the investments made in it. Much closer attention is therefore being given to the inherent economic elements in planning and implementing any education and training system which, if one regards it as an "industry", involves the following questions:

- (1) What to produce (i.e. what kinds of education and training should be offered).
- (2) How much to produce (how many should be educated and trained).
- (3) How to produce (what systems and methods of education and training should be used).
  - (4) How to finance the production.
  - (5) How to control and manipulate the system.

The first two questions have drawn the most attention in the work done so far, and this article concentrates on them, although the other questions are equally important.

#### What and how much to produce

To the extent that economic development takes priority over other policy objectives, both questions are best answered as a practical matter with reference to the employment opportunities that are likely to be generated by the rate and pattern of economic development which is expected or planned for.<sup>1</sup>

If it is anticipated that the employment opportunities for engineers are likely to increase, for example, then it would be desirable to expand the numbers of engineers trained. This may imply expansion not only in the facilities for training engineers but also in secondary education and teacher training. The whole of the education and training system may be planned in this way with reference to the manpower requirements of a developing economy.

In the past, most countries have not planned their educational systems in this way, but have tried to envisage what the individual and collective demands by people for education and training might be and have tried to satisfy these demands within the limits of available resources. There are indeed legitimate and important social aims for education—such as universal literacy and equal educational opportunity for boys

<sup>&</sup>lt;sup>1</sup> This is not to assert that economic development necessarily does, or should, take priority over cultural and other objectives, but only that a different order of priorities involves economic costs which should be taken into account. This is, of course, especially important in low-income countries.

and girls—just as there are legitimate manpower aims. Furthermore these aims are not mutually exclusive.

There is a tendency, however, for these twin aims to become confused, because education is both an important factor in economic development and one of the benefits flowing from it. This has led to a vague and implicit assumption that all educational and training endeavour can be justified on the grounds of investment. It is quite clear, however, that expansion beyond certain limits at different levels and in different fields and kinds of education and training produces rapidly diminishing productive returns and cannot be justified by hopes of enlarging the productive capacity of the economy. There may be excellent social reasons why these limits should be exceeded, if people want and can afford it; but these are social reasons entirely distinct from investment grounds.

In the advanced countries these limits are not very stringent because the addition of more educated and trained people in any occupation is likely to be small in relation to the large stocks already employed, and because the alternative employment possibilities are numerous. In the developing countries, however, the reverse holds true. That education has already been expanded beyond the investment limits—at least in some fields—is evident from the large numbers of "educated unemployed and underemployed" to be found in many developing countries.

It is very important, therefore, in the developing countries to be able to distinguish the amounts and kinds of education that will make a large contribution to economic development from those that will make a small contribution.

The manpower approach to educational planning, that is the development of the educational and training system by reference to forecast employment opportunities, can theoretically distinguish the economically useful amounts and kinds of education and training. But attempts to apply this approach in the developing countries appear to be leading to disturbing imbalances, anomalies and waste for the following reasons.

First, rather refined statistical data are needed concerning employment, occupational structures and educational backgrounds of the employed in the different industries. Only in a few developing countries, such as India and the United Arab Republic, are these data anywhere near adequate. In most countries there are almost no data of the type required, and in some cases such information as exists is unreliable. In the absence of adequate data reliance must be placed on more aggregative statistics such as employment by sector; professional, skilled and unskilled occupations; university, secondary or primary qualifications. Educational and training plans based on such broad categories necessarily have to be framed in broad terms and can only refer to very long-run developments, which leaves a great deal of latitude for mistakes to be made in the shorter-run allocation of educational capacity between various fields and kinds of education and training.

Second, although educational planning based on the manpower approach is properly concerned with determining, and providing for, employment opportunities, manpower targets are frequently set up in terms of social goals rather than employment opportunities. For example the numbers of doctors and teachers required are frequently determined by reference to the total population in the former case and potential school enrolments in the latter. Comparison of such relationships in developing and advanced countries shows that large "shortages" exist in the developing countries, and for social reasons it is often throught desirable to try to eliminate these shortages.

Yet the implicit assumption that employment opportunities will be sufficient to occupy all those trained to fill these shortages does not necessarily hold true. One of the reasons why there are relatively fewer doctors and teachers in the developing countries is that less money is available per head of population to pay for their services. Another reason is that the bulk of the population live in rural areas to which it is almost impossible to attract highly educated people; as a result the concentration of the highly educated in urban areas is high relative to urban population and demand. The emigration of highly educated people from the developing to the advanced countries (of Indian doctors to the United Kingdom, for example) is one concrete manifestation of this situation.

Thus, unless governments take positive steps to raise the effective demand and the pay for people working in such social services in rural areas, educational planning on the basis of social goals is likely to lead to the underemployment of people in these fields. Such a situation already obtains in many developing countries, particularly in Asia and the Middle East.

The third reason for the anomalies with which we are concerned is that most education and training plans based on the manpower approach deal exclusively with the formal education system, and frequently with the government-run part of it alone. This is so because education is not the exclusive province of governments; an important sector is often in the hands of religious communities and business enterprises, thus escaping from direct government control. In addition statistics on private education activities are usually inadequate.

As regards training, additional reasons for omission may perhaps be a lack of personal experience amongst highly educated educational planners, and a tendency to regard such training as a second-rate activity leading to second-rate employment opportunities. This is all the more unfortunate since skilled manpower shortages in developing countries appear to be most critical at the sub-professional level (technicians and craftsmen). The implicit assumption that the training system will respond "appropriately" to these shortages and to the increasing supply of educationally qualified recruits appears curious in the light of the evident need to plan for the expansion of the formal education system. Indeed,

in many developing countries a situation has already been reached in which large numbers of educated but untrained youths cannot obtain the training that would lead to gainful employment. Thus, the concentration of plans on the formal education system appears likely to lead, and in some countries has already led, to a misallocation of resources between education and training with serious consequences for the whole strategy of "investment in human resources".

Finally, the manpower approach to educational planning only provides targets for the numbers and kinds of graduates at each level of education and training. This ignores the fact that the flow of students within the different levels of the education and training system and from one level to another is also an important determinant of the numbers of people to be educated and trained. A system in which all students proceed to graduation in conformity with the plan requires a minimum intake; one in which only half the students graduate requires some degree of education and training to be provided for a great many more people in the process. The education plans drawn up for the developing countries have said very little about the possibilities of economising on educational inputs by improving the flow of students through the system.

Action to reduce the proportion of "drop-outs" should therefore form an important part of education and training plans in the developing countries, so as to raise the efficiency of their education and training systems and to reduce the numbers enrolled in relation to the manpower requirements of their economies. This policy is humane as well as economically desirable. The situation of drop-outs at the lower levels of the education system is particularly invidious. Those with only a few years' primary education can scarcely be expected to retain their knowledge in a predominantly illiterate environment; those with less than several years' secondary education are difficult to train for skilled or semi-skilled occupations. Their aspirations, bred by contact with education, are incapable of satisfaction.

Summing up, the manpower approach to the planning of education and training is primarily concerned with setting and providing for employment targets requiring the acquisition of skill in the modern urban sector. But, for various reasons—such as the inadequacy of statistical data, attempts to include "social requirements" for certain kinds of manpower, concentration of attention on the formal education system, and neglect of the possibilities of improving the flow of students so as to satisfy manpower demands more efficiently—the present application of the manpower approach in the developing countries tends to lead to unsatisfactory results: the production of educated and semi-educated people large numbers of whom remain unemployed for lack of jobs, or of jobs in areas to which they are prepared to go; misallocation of effort between formal education and training; and the risk of serious error in allocating students and trainees between different specialised fields.

## The viability of education and training systems in developing countries

### Unemployment among the educated and trained

Historically the generalisation of education and training appears to have accompanied urbanisation and industrialisation. The developing countries, however, are predominantly rural and agricultural. Because of the present and traditional emphasis of education and training on preparation for urban life their viable expansion in developing countries is therefore restricted by the limited capacity of urban areas to absorb their products.

This limit of viability has already been reached in many of the developing countries although their educational development is still low. In India, for example, the number of "educated unemployed" is conservatively estimated at about 1 million. "Young men belonging to this group cannot find adequate openings in urban areas unless they obtain technical training of some kind or other, and at best they can be absorbed to a limited extent and in relatively low-paid occupations. In the immediate future, it is in rural areas and through rural programmes that large employment opportunities for the educated unemployed are likely to become available..." In some countries of East and Central Africa urban employment actually decreased during the period 1957-62, while the inequality of incomes between rural and urban areas increased, generating pressure for an urban "drift" and producing increasing numbers of urban unemployed.<sup>2</sup> The expansion of the education and training system beyond the extent to which its graduates can be absorbed by the urban sector is therefore economically defensible only if it fits people for rural life.

Most present systems of education and training are demonstrably not doing this. Thus, if the desires of the developing countries for rapid educational development are to be satisfied, the objectives, content and system of education and training must be rethought in terms of rural culture, tradition and skills.

For example primary education in all, or at least rural, schools should have a strong bias of rural values and skills. It should cater for adults as well as children so as to reduce adult opposition to the new approaches to rural life and work which the schools would teach. The schools should have a strong training element in their curricula so as to show practical relationships between knowledge and improvements in rural living. In effect, principles akin to those of the community school, which have been effectively developed in the Philippines, should be used.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Government of India, Planning Commission: *Third Five-Year Plan* (1961), p. 166.

<sup>2</sup> See Gus Edgren: "The employment problem in tropical Africa", Seminar on Labour Policies in East Africa, Nairobi, 24-28 September 1964 (mimeographed), pp. 1-2.

<sup>&</sup>quot;... A community school is a school identified with, and ultimately related to, the life of the community in which it is located. It is a community school not by virtue of the mere

Such a concept of primary education makes the manpower approach to educational planning much more powerful. Primary education and training can be planned on two bases: one part to service the demand of the modern urban sector for graduates from primary, secondary and tertiary education and training; a second, and larger, part to service the demand in the rural sector for people who can raise rural productivity and living standards and who may, therefore, have an incentive to remain in rural areas.

Since it is likely that urban incomes will continue to outpace rural incomes, it is important that such a system should be accompanied by redistributive and compensatory measures in favour of rural people.1 For example people living and working in urban areas should be taxed more heavily in comparison with rural people than they are at present. The yield might be used to raise the incomes of the teachers, agricultural extension experts, engineers and doctors who would be needed to work in rural areas as a result of the expanded education programme. Another means of supplying the required educated manpower would be to make admission to various courses of education and training contingent upon an undertaking by the students to work for a period in rural areas. It should be made known that top priority will be given to rural development projects generally. Propaganda should praise the efforts of rural communities to raise their standards of life. In these ways the more limited prospects for personal economic advancement open to rural people could be compensated by the active and evident determination of the government to give considerable weight to rural needs.

The numbers of people with secondary and tertiary education and training which the government is *determined to employ* in its rural development programmes should be added to the urban employment opportunities for secondary and tertiary graduates, therefore, in planning the secondary and tertiary levels of the education and training system. To the extent that the government equivocates in its determination rural development programmes are likely to fail and employment problems for secondary and tertiary graduates in the urban areas to arise.

The flow of educated people into the towns is only one source of educated unemployed, however. Another is the high number of dropouts from the education system, who are insufficiently qualified to obtain high-level employment. Action to increase the numbers of graduates

fact of geographical location but more because of its real and actual function of ministering to the needs of the people.... It is a school of, by and for the community...." (Community school development—A handbook for teachers (mimeographed) (Teheran, U.N.E.S.C.O. Mission, 1964), p. 7.)

<sup>&</sup>lt;sup>1</sup> Such a shift in incomes need not necessarily be harmful to the over-all growth of output in the economy. Increased rural consumption could stimulate a fuller utilisation of existing manufacturing capacity, while the returns on rural investment may be no less than on urban investment, and may well incorporate more foreign-exchange earnings than may the returns on urban investment.

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from the terminal points of the education and training system in conformity with employment opportunities should therefore be directed first at reducing drop-outs, rather than at increasing first-year enrolments.

This implies that opportunities to enter secondary and tertiary education might become more limited than at present. Stricter selection procedures, based on evidence of ability to learn, would be necessary. Arrangements would also have to be made to ensure that students did not drop out for financial reasons. For example living allowances could be paid to all needy students studying full time; provision could be made for part-time study, as in apprenticeships, which enable earning to accompany learning; meals and accommodation for students could be heavily subsidised. Teaching standards would have to be improved, since inadequate teaching is frequently a cause of students' dropping out of the education and training system.

It is only radical measures such as these that seem capable of eliminating unemployment amongst educated and trained people in the developing countries, while permitting manpower demands to be met and the education and training system to expand. The alternatives to such solutions appear clear: either a halt of educational expansion, particularly at the primary level, or else a continuation of the status quo. Both alternatives raise serious political and social problems for the developing countries.

## Training and occupational classification

A number of reasons for the neglect of training in the plans of developing countries have already been indicated: control in private rather than government hands, lack of knowledge about training on the part of planners, and a dearth of statistics on which to plan training.

The implicit planning assumption that enterprises will train appropriate numbers of people for the development of the economy in accordance with over-all economic plans or policies is not valid. The numbers which enterprises plan to train in the absence of policy measures to stimulate training are always likely to be inadequate. The risks and costs attached to the training of craftsmen or technicians, particularly for smaller enterprises paying lower wages, which stand a considerable chance that the employees they train may leave at any time, leads many enterprises to adopt a policy of either obtaining craftsmen and technicians from the labour market or providing training that is inadequate and amounts to the use of apprentices as cheap labour. Unless larger enterprises can be induced to train more than they need, long-run chronic shortages are certain to develop.

If this situation is to be avoided, some central authority must estimate the numbers of craftsmen and technicians which enterprises are likely to require in different fields, and must take steps to see that appropriate training arrangements are made.

It is clear that the neglect of this area of planning in the developing countries has led to the inability of many educated people to obtain the training they need in order to find employment. The complementary nature of education and training has been too lightly disregarded, leading to an excessive concentration of resources in education.

The essence of training is specialisation in a productive skill or group of skills, whether at high or low levels. It is the last step in the learning process in preparation for work. Thus, in planning training it is necessary to be much more specific about the field and content of learning than is the case when planning education. In the case of training it must be recognised that, in addition to the barriers between the different levels of attainment that generally suffice to define the broad categories for educational planning purposes, there are barriers to the substitution of people in different fields of specialisation. How far the classification must be further broken down depends on the exact nature of these barriers.

Essentially, their importance is determined by how long it takes to pass through them. This will vary for different people, depending on their learning ability, their education and training backgrounds, or their working experience. The type of education they have had may greatly facilitate their mastery of new skills, or their work experience may have brought them into visual or tactile contact with these skills. The barrier to becoming a doctor is minor for a final-year medical student compared with a first-year medical student. In the same way, the barrier to becoming an engineer may be small for a highly experienced technician compared with a newly trained technician.

In addition to the time factor, what is important is to identify the paths leading through the barriers between occupations, and especially to locate their starting and terminal points. For this purpose it is extremely helpful if occupations are classified not according to function but to the educational and training backgrounds required. By this means occupational levels can be defined with reference to the level of education and training (or experience) they demand; similarly different occupations at each level can be defined in terms of the kinds and fields of education and training (or experience) they require.

As far as mobility to a higher occupational level is concerned, the education system usually distinguishes three, or sometimes four, terminal points: at the end of primary education, at the end of three years' secondary education, at the end of full secondary education and at the end of full tertiary education. The barriers to achieving a certain occupational level through education may be regarded as the time required <sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Strictly speaking, the barriers to upward occupational mobility are the costs involved, of which the time required is a major element.

from the previous terminal, the point at which a decision must be taken whether to proceed to higher educational levels or not. Similarly, the barriers to a higher occupational level through experience on the job may be regarded as the time required from entry into work with the next lowest level of education and training. It seems reasonable to assume that the time required for further education and training to a higher level will, in most cases, be less than that needed to acquire the necessary experience on the job, so that the former is the effective barrier to upward mobility.

As regards mobility to a different occupation at the same occupational level it would seem reasonable to define the barriers in terms of the time required, through further training or experience, for a qualified person at that occupational *level* to acquire the new skills. Clearly, these barriers will vary in importance depending on the kinds of skill already acquired and the kinds to be acquired. For example, while the barriers between medicine and engineering are obviously considerable for transfer in either direction, the barriers between engineering and teaching may be minor for transfer from the former but considerable for transfer from the latter.

Thus, at each level in the occupational hierarchy (defined by the level of education and training required to enter that level) there are some occupations for which the skills required are general at that level; transfer into these may involve little further training or experience for people from almost any occupation at the same level. Teaching occupations are an example. There are others requiring a common stock of more specialised skills; transfer within this small group may involve little further training or experience, though transfer into it will involve much. High-level engineering occupations are an example.

An occupational classification system designed to take account of these barriers would therefore consist of several levels; at each of them it would differentiate between major training groups within which transfer might involve relatively little further training but *into* which transfer might involve much further training. Such a classification system may look familiar in structure, but it is fundamentally different in approach from existing classification systems. It differs from them essentially in that it is based on ascertaining and measuring the education and training barriers to mobility, rather than the functional differences between occupations.

Comparing such a classification with the *International Standard Classification of Occupations* (I.S.C.O.)<sup>1</sup>, the highest level of occupations might, for example, replace Major Group 0 in the I.S.C.O. system. Such

<sup>&</sup>lt;sup>1</sup> Geneva, I.L.O., 1958. This classifies occupations into broad "major groups" and, within these groups, into more specific "minor groups", and within these into "unit groups". Major Group 0 relates to "Professional, technical and related workers", and Major Group 1 to "Administrative, executive and managerial workers".

minor and unit groups (classified in Major Group 0 in I.S.C.O.) as "Nurses and midwives", "Medical technicians", "Artists, writers and related workers" and "Science and engineering technicians not elsewhere classified and laboratory technicians" might be placed in the second level of occupations. On the other hand some administrative, executive and managerial occupations (in Major Group 1 in I.S.C.O.) might be placed in the highest level and treated as a broad skill group together with secondary teachers, for example. Similarly, in the third level of occupations some sales and clerical workers, for whom specialised training may be rather short, might be grouped together with other lower-level white-collar occupations, while craftsmen and production process workers at this level would have to be more finely classified.

Clearly, the classifications suggested here are no more than rather obvious guesses at what such a system might look like. The field is open for enterprising research into the educational and training barriers to occupational mobility as a basis for an occupational classification system specifically designed for the planning of education and training. This appears eminently worth while, because with an appropriate classification system the planning of education and training as an integrated whole becomes possible.

In the past, most work on educational planning has been concerned with the problem of determining how many people to admit to the lower levels of the education system in order to obtain sufficient numbers of graduates from the professional and sub-professional levels. Since a child entering primary school may take 20 years to graduate from the university, little detail is required about employment opportunities for university graduates so far in advance. But the equally important problem of planning how many to admit to different fields of training at universities, or at lower levels, has not received adequate attention, partly because the more detailed statistics required have not been available. partly because too much inflexibility in the education and training system has been assumed with the result that the importance of precisely determining the volume of enrolments at the lower levels of education has been overestimated. Insufficient weight has been given to the fact that a small change in drop-out rates over 20 years, for example, can produce a large change in the numbers of graduates, without any change in baseyear primary enrolments.

When training requirements (particularly those outside the formal education system) are considered together with educational requirements, the amount of resources necessary to ensure that sufficient training as well as sufficient education takes place becomes more apparent. And the possibilities of misallocation of resources between fields in training is substantially reduced. In particular, the numbers of people who are not going to receive training becomes clear, and the problem of what to do about these people cannot then be avoided.

#### Some research needs

In this article it has been argued that the planning techniques applied to the education and training systems of the developing countries have led to serious anomalies and misallocation of resources. Some suggestions have been made concerning two ways in which educational planning might be improved in the developing countries. These suggestions barely scratch the surface of the problem, but they are indicative of the kind of research which needs to be done if education and training are to expand in the developing countries in a viable and economically beneficial way. The readiness of planners to speak in terms of broad categories embracing a number of different items, without questioning the assumptions on which these categories are based, has led to policies that are producing disquieting results. These assumptions stem originally from the experience of advanced countries and their applicability to the developing countries cannot be taken for granted.

Thus, research in the planning of education and training should put more emphasis in the future on ascertaining the *systems* of education and training which will best serve the needs of the developing countries; for example the extent to which the training of adults should have priority over the training of children; the emphasis that should be given to part-time education; the kinds of educational pyramids that should be aimed at; the amount of education that is necessary for training to be effective at different levels, and so on.

Second, research should try to develop *methods* of education and training appropriate to the conditions of the developing countries. To what extent, for example, can unskilled people be substituted for teachers? What are the possibilities of using programmed instruction in the developing countries? Can education and training be accelerated by a change in methods, and if so how much?

Third, research should try to determine the most appropriate content of education and training at the different levels and in various fields—for example the content of rural primary education, the precise skills and knowledge required in various occupations in the developing countries, the extent to which training can be generalised into basic courses leading to a broad range of occupations, and so on.

Fourth, research should try to evolve suitable measures to encourage and control the development of an appropriate education and training structure—for example wage incentives, scholarship schemes, taxation, propaganda, subsidies to industry for training purposes, and so on.

What and how much education and training to produce hinge critically on answers to these questions, because the viability of the system depends on them. Speaking of Africa, Sir Ronald Gould once said: "If Africa is to be educated, it will not be done by traditional methods."

<sup>&</sup>lt;sup>1</sup> Quoted in John Vaizey: The control of education (Faber & Faber, 1963), p. 16.

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Whatever form the new methods may take, it is certain that the developing countries need an education and training system that is adapted to poverty in a predominantly rural environment, a system relevant to the day-to-day economic and social problems of individuals in such a setting and calculated to lead them to find their own solutions to these problems, a practical system adapted to underdevelopment and not one conceived to suit the patterns of a sophisticated industrial society.