Educational planners will face ten central problems in the next decade. First, there will be a rising demand for education, spurred by continued rapid population growth. Second, educational development will face increasing financial constraints in many countries. Third, educational systems will have to respond to serious shortages of specialized manpower. Fourth and fifth, the role of education must be defined in relation to the need for agricultural and rural development, on the one hand, and the need for industrial development and government services, on the other. Sixth, opportunities for out-of-school education must be developed and coordinated with the formal educational system. Seventh, teacher supply and demand must be reconciled to meet changing economic and educational needs. Eighth, educational productivity and quality will have to be increased to get maximum results from limited educational resources. Ninth, educational systems must become better equipped for innovation and self-renewal. Tenth, there must be a better understanding of the social impact of education on society. To cope with these challenges, educational planning must make use of improved administrative planning and management analysis, better research and training, and increased help from all the social sciences.

(Author/JG)
The Fundamentals of Educational Planning: Lecture - Discussion Series

No. 13 MAJOR PROBLEMS FACING EDUCATIONAL PLANNING IN THE NEXT DECADE

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INTRODUCTION

The purpose of this lecture is to look ahead, as best we can, in order to identify some of the central problems with which educational planners will be preoccupied during the next ten years. To see clearly ahead, however, we must begin by looking back, for these problems of the future have had their genesis in the present and recent past.

In the last decade there has been a spectacular increase in education throughout the world. In all countries many more young people are attending school today. Much more money is being spent on education by governments and private sources than ever before. Many factors have contributed to this expansion, among them the explosive increase in population in many countries. As a result, school systems have had to run very fast, first to take care of the increase in the population itself, and then to try to raise the proportion of the school-age population at school.

Along with this quantitative growth, there have also been changes of educational structures, curriculum content and teaching methods. But by and large these internal changes have been overshadowed in most countries by the quantitative expansion. In other words, educational systems are still remarkably like they were 10 and 15 years ago when the great expansion began.

Parallel with this educational expansion there has also been economic growth, but often at a slower pace than hoped, and more slowly than educational growth itself. Though 6 or 7 per cent annual increase of gross national product may have been the aim, it has often turned out to be only 3 or 4 per cent. Economic growth in some countries has had trouble keeping pace with population growth. Thus average per capita incomes have not advanced greatly in the last decade, even though the incomes of favoured groups, particularly in the cities, may have increased significantly.

Although modern educational planning began to take shape during this recent period, most of this quantitative expansion in education occurred without benefit of planning. Nations now need to accelerate the development of educational planning to avert some of the severe problems and wastes which result when educational expansion occurs without good planning.

RISING DEMAND FOR EDUCATION

Given this background, the first problem which will have to be faced, whether in Latin America, Africa, the Middle East or Asia, is the continued rapid growth of population, combined with the rising demand by parents and their children for educational opportunity. There is no present prospect of this increase in population slowing down.
Many developing countries, it should be noted, have the basic natural resources to sustain a substantially larger population in the long run, provided these resources are intelligently developed. The real problem is not total population but the rate at which it is increasing in relation to the rate of economic and educational expansion. If population grows too fast, relative to everything else, it means lower real incomes and less food for each family, and it means that education cannot expand rapidly enough. It is important to stress this because there is much misunderstanding in many newly independent countries over the issue of limiting population growth. This is sometimes interpreted as meaning that the former imperial powers are attempting to stop the growth of these peoples. But the real issue is not this; it is one of balanced growth.

Demand for education already heavy, is likely to increase still further because education has a way of generating its own demand. If you put a much larger number of children through primary school you must anticipate that a few years hence more pupils will want to go to secondary school. In France, for example, the question is not one of public demand for primary education because that is already universal. But since the war there has been strong public pressure for more secondary education; and as that demand is satisfied there emerges a greatly increased popular demand for university education. The gap between this popular demand and what a country can do at the moment in providing educational opportunities constitutes a major political problem in many countries.

**FINANCIAL CONSTRAINTS FACING EDUCATION**

The second great future problem is the inevitable financial constraints which educational development must face. It has always had to face them, but the constraints in many countries are likely to become more severe, simply because the proportion of national economic effort that is now going into education is so much larger than in the past that it is beginning to compete severely with other important demands, such as health, housing and industry. One cannot expect education's proportion of the total national budget to keep going up as rapidly as it has in the last ten years in a good many countries. This means for one thing, that while educators, and educational planners, must continue fighting hard, as they have always had to, for bigger budgets to take care of more children and to do a better job of education, they must now learn more about fiscal affairs in order to seek out and obtain new sources of finance. But however successful they are at this; they will at the same time have to give much more attention to getting greater and better educational results out of the resources they already have.

**THE MANPOWER IMBALANCE**

The third problem is manpower, and there are two sides to this coin. Earlier the side that received main attention was the shortage of specialized manpower, for economic development and government administration. Serious shortages of certain types of manpower still exist in most countries and one task of educational planners is to try to shape the educational system and the flow of students to overcome these shortages. Otherwise economic growth and public services will be handicapped.
But the other side of the coin is that the over-all number of new jobs is not growing rapidly enough in many countries to absorb the young people emerging from schools and universities. In recent years this imbalance has become a conspicuous problem. In a sense it is a good sign of educational progress, but it is also a source of grave concern to educators, political leaders and others, because the pupil who comes out of school with a certificate or diploma will not be satisfied to be told: "Wait a while, the economy will absorb you one day, or if not you, then your children". He wants a job right now and if he does not get one he may become a problem. It is not only a problem for the individual; it is a waste of human resources for his society. Educators and planners cannot simply dismiss it by saying it is someone else's problem to solve. They cannot say: "We have produced the manpower, now you find the jobs". Educational planners, while they cannot take responsibility for creating jobs, must be in a continuing dialogue with those concerned with economic development and employment. They must try to do what they can within the educational system to cut down the time lag between leaving school and finding gainful employment. This is a difficult problem for which there is no panacea. It will haunt educational planners in the coming years.

RURAL AND AGRICULTURAL DEVELOPMENT

A fourth problem, equally difficult and closely related to the employment problem, is rural and agricultural development. What is the rôle of education here? Economists have now come to realize that unless a developing country puts heavy emphasis on developing its agriculture and its rural areas it is not likely to be able to make a 'take-off' into sustained industrial development. The reason is that industrial development needs a base of savings that can be ploughed into industry, and the major economic base in most developing countries is the rural areas. That is where the people and natural resources are. Agricultural development, in short, is a prerequisite to industrial development.

But in many countries agriculture has not been developing speedily enough. Priority has, understandably, been given to industrial development. But now more emphasis must be put on the rural areas. This challenges educationists to rethink the rôle of education in agricultural and rural development, and in doing so it is essential to visualize education not only in terms of the formal school - the elementary school, the agricultural high school, the agricultural college - but more broadly to include the many kinds of practical training and education that go on, or should go on, outside the formal system, such as farmer training, literacy training, training of mothers in home economics. All these kinds of training along with other actions aimed at agricultural development, must be put together to raise living standards in rural areas.
TRAINING FOR BUSINESS AND GOVERNMENT

A fifth and parallel problem concerns training for industry and commerce and for government service. This, by and large, involves people outside the rural areas. Here is another key area in any educational system (including those of developed countries) where much rethinking and research is needed to provide guides to future development that will make the best use of available educational resources. Here again we need to keep in mind not only the formal educational system, such as the vocational high school or the polytechnic (these have their place), but also out-of-school training for industry, commerce, and government; in some cases these are preferable to in-school training. They may be less expensive, quicker and may concentrate on people who really are going to practice the specialized training they have received. The great expense of technical training requires that we look very hard at the choice between formal and non-formal types of technical training when considering a country’s manpower needs.

OUT-OF-SCHOOL TRAINING

The sixth problem is out-of-school training and education, which I have already stressed in relation both to rural development and to urban development. Considerable progress has been made in developing methodologies for planning the formal school system, but little thought has yet been devoted to planning and co-ordinating these vital education and training activities that go on outside the formal system. This is an important frontier for educational planners everywhere.

TEACHER SUPPLY AND DEMAND

The seventh problem is teacher supply and demand. This is going to remain a crucial topic for educational planners but is likely to change its character somewhat. As secondary and university level educational output expands, schools should find it easier to recruit staff. If, for example, some liberal arts graduates in Nigeria, over the next three or four years, find that there is no longer a job in administration automatically waiting for them, they will have to look at their other choices - and up until now teaching has not been even their second or third choice.

This means that schools can become more selective in employing teachers than during the earlier period of rushed expansion. On the other hand, there is an increased problem of upgrading the teachers already on the job who did not have an opportunity to go through secondary school or university. They will now need further education and training if the quality of the whole system is to be raised. Thus, in-service training will become more important. We still have much to learn about the most efficient and effective forms of in-service training.

Another teacher supply problem which will probably become bigger in the next ten years concerns specialized teachers,
particularly for technical and science education. The teacher requirement pattern will demand more teachers with not just a good general education or specialized in one of the traditional school subjects, but teachers who can teach in specialized programmes, particularly in technical fields.

EDUCATIONAL PRODUCTIVITY AND INNOVATION

The eighth problem concerns raising educational productivity and quality; in other words, how can educational planning help a nation to get maximum results, both in quantity and in quality, from whatever educational resources it has available?

It is useful in this connexion to distinguish between the internal efficiency and productivity of an educational system, and its productivity seen from an external point of view. Internal productivity is measured by the relationship between the learning results achieved and the costs of achieving them — that is, the relation between 'inputs' and 'outputs'. This relationship can be improved, up to a point, by relatively simple means involving no radical changes in conventional arrangements and practices, such as improving procurement or construction practices, maintaining equipment better, up-dating teaching materials, etc. Major improvements in internal productivity, however, are likely to require more drastic changes and innovations, such as the introduction of radically new teaching methods and devices, such as new media, major changes in schedules permitting fuller utilization of facilities.

A school system may be making relatively efficient and productive internal use of its resources in doing what it is now doing, but what it is now doing may not be especially relevant to the present and future needs of its society and of the individual students. In other words, it may be teaching the wrong things, to the wrong people, in the wrong proportions. In this event, its external productivity is low, however high its internal efficiency may be. To state it differently, the 'fitness' of the system to its environment may be poor, because the environment has changed drastically and the educational system has not. This is in fact the situation with virtually all educational systems today; they need to become better adapted to the present and prospective priority needs of their society, which have changed and grown enormously in the past 20 years.

To improve both internal and external productivity calls for far-reaching changes and innovations in virtually all aspects of educational systems everywhere. This leads us to the ninth problem: how can educational systems become better equipped for change and innovation; for self-renewal? In this regard, educational systems are notoriously sluggish and backward. At a time in history when everything else is changing rapidly, educational systems must learn how to change themselves rapidly too, or they will lag behind and fail to make the contribution they must to national and individual development. Here, then, is another challenge to the ingenuity of educational planners.
SOCIAL CONSEQUENCES OF EDUCATION

Finally, there is the tenth problem - which in the past has scarcely appeared on the horizon of educational planners, but which now must receive much more attention - namely, the social impacts of education. If you take a traditional and relatively static society which is starting at a low level of economic development and inject modern education into it, this suddenly exposes a new generation to the 20th Century, while their parents may still be living a century or more earlier. This is bound to have all kinds of repercussions. We all have faith that on balance, it is a good thing to do, but we are far from clear about its full implications for the society concerned.

We do know, for example, that it creates aspirations in young people that they would not otherwise have had, and it seems to accelerate the movement of bright young people from the rural areas to the cities. We also know that the more education people get, the more they want, and this desire translates into political pressures for educational expansion.

As far as society as a whole is concerned, we know, for example, that any country which for many years has been a colony or dependency of another country but which has now acquired independent status, requires a long process of nation-building before achieving nationhood in the full sense of that term. It took European countries many generations to become nations in the modern sense, and while it need not take others all that time, it is a process which at best requires years. The question for us is: What can education do to hasten the social and political development of nationhood and the institutions that provide the infrastructure of a nation? Presumably this is one of the cardinal contributions which education can make in a newly independent country, but we have much still to learn about this process, and about what kind of education is best suited to this purpose.

IMPLICATIONS FOR EDUCATIONAL PLANNING

The 10 problems just outlined have vast implications for educational planning. How do we go about strengthening educational planning to cope with them? We know that we cannot overnight achieve the comprehensive, long-range, integrated educational planning which would be ideal. In fact, no nation has yet reached this ideal. While we must keep the ideal in view, we must be practical in pursuing it and not expect the impossible overnight. The first need is for more information to help us appraise the present situation. Along with the best facts we can get we also need analytical methodologies for using them, both to diagnose the present and to plan the future. As unromantic as statistics and methodologies may seem at times, they are fundamental for planning.

But even good statistics and methodology cannot by themselves guarantee effective planning. They help in getting feasible targets, but they do not insure that the targets will be realized. The implementation of plans requires adequate administrative machinery, in education
and indeed in the whole governmental system. Without adequate organizational arrangements, administrative procedures and, above all, the right personnel - properly trained and with the right conceptions and attitudes - no plan is likely to get off paper.

Thus educational planning must include administrative planning and management analysis. This is no easy matter. It is easy to tell a country what is wrong with its present administration and organization, but far harder to improve the situation. Here again we need to learn more. Clearly a high priority must be given to improving the administrative aspects of the over-all educational planning process, and to research and training directed toward this end.

Another implication concerns the goals and priorities of planning. Often these goals are defined in only the vaguest terms, sufficient for public addresses but not for practical planning. If planning is to be meaningful, it must begin with a clarification of educational goals in sufficiently specific, operational terms to provide a social basis for defining practical programmes of action and also for evaluating progress.

Then there is the question of priorities. There are many goals and clearly they cannot all be realized at once. Often the tendency is to have a kind of democracy among goals which treats them all equally, with the result that little progress is made toward any one of them. The very essence of planning is to make choices among alternative ways of using scarce resources, and thus to give some goals a higher priority than others in any given plan period. In the long run the aim can be to attain all the goals, but meanwhile it is essential to determine a logical and feasible sequence for getting there. Without priorities and a time schedule, planning can have little meaning or justification.

The final implication I shall mention is that satisfactory solutions to all the foregoing problems will require a heavy emphasis on imaginative new research, improvement of analytical techniques, and the flow of data, a vastly greater emphasis on experimentation and innovation, and greater attention to evaluation.

To sum up: educational planners everywhere face a series of major problems in the coming decade, 10 of which have been considered briefly above. While one central problem is to continue the trend of quantitative expansion which has been marked in the past decade, this is by no means the only problem. The most important and difficult problems lie in the realm of changing educational systems, to fit them more realistically and productively to the changing needs of societies and individuals, and to raise their efficiency and productivity so that they can contribute the most to national development within the limited resources available.

If educational planning is to cope effectively with this unprecedented challenge, it will require the increased help of all the social sciences. It will require greatly strengthened research and training. And not least of all it will require a rich and extensive interchange of experiences and knowledge among nations, so that each can benefit from - and contribute to - the progress of all others.