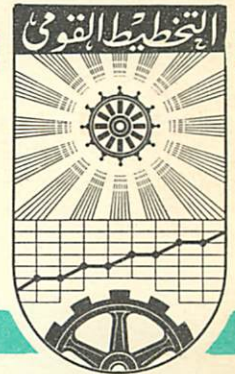


# UNITED ARAB REPUBLIC

## THE INSTITUTE OF NATIONAL PLANNING

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A TENTATIVE PLAN  
FOR THE FUTURE DEVELOPMENT OF THE  
EDUCATIONAL SYSTEM IN THE U. A. R.

by

Dr. M. S. Fahmy

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## Introduction

Today as never before , the development of education is of prime and indispensable importance to every country in the world. "The swift and farreaching social changes now in progress, the enormous growth of population, the exigencies of quickly developing economies and the wealth of knowladge and technology available are some of the factors which give the problem special urgancy"<sup>1</sup>

There is therefore an urge, allover the world, to adapt the education system of every country and its cultural content in a way which could meet the new requirements imposed on by modern socio-economic changes, especially those imposed on by the development of science and technology.

In this country we are living days of hot controversies over the adequacy of our educational system. Letters and addresses in newspapers and magazines, talks in radio and television, reports and memoires in public circles show the interest in the problem, and the wide differences of openions for solving it. The main theme in these arguments is that our educational system has failed to provide the country with its needs for skilled manpower at all levels to carry out the national development plans.

This paper is an attempt to reveal the position of our educational system, and to illustrate.

1. UNESCO, Elements of Educational Planning.  
Educational studies and documents , No. 45

P.5.



that it is unable by its present structure and content, to meet the challenges of the current rapid socio-economic forces.

It has also the purpose of devising a framework for a new educational system which while not departing from our tradition and line of educational development, yet, I believe, will meet the demands of this time.

## Chapter I

### Education and socio-economic development •

#### 1- Education and manpower problems

This country, as most of the developing countries, is plagued with two basic problems concerning its available manpower :

- a. A surplus of unskilled manpower in both urban and rural areas in a form of un- and underemployment
- b- A shortage of skilled manpower in almost all types of skill in agriculture, industry, commerce etc.

The shortage and surplus of manpower are related. The greater the shortage of skill, the greater is the likely surplus of the unemployed and the potentially unemployed people. The surplus of unskilled manpower could be a result of rapid growth in population, too rapid disintegration of traditional rural societies and consequent rapid development of urbanisation. But the two problems of surplus and shortage of manpower are strongly



related to education. The education system is the main agency for producing skill. It can direct the surplus of unskilled labour, by providing them with skill, to meet the shortages of skilled manpower. It is not however certain that an expansion of the educational facilities will solve the whole problem. It may on the contrary increase it. An unbalanced or ill-planned educational facilities which overlook the dimensions of the manpower problem would have bad consequences. For example a rapid development of, or over - investment in primary education may lead to large scale unemployment since primary school leavers do not always like to work on land and seek clerical jobs in town. Similarly a rapid development of higher education may lead to a certain type of unemployment among the educated. It is interesting to note that "countries which have made the most spectacular progress toward eliminating illiteracy and in pressing forward industrialisation ( i.e. Egypt, Ghana, and Nigeria ) are often the ones which have encountered the most serious shortages of high level manpower as well as the largest number of unemployed persons. (1)

#### Education as a factor of production

Education has long been looked upon as a service or a consumption good. It was rightly considered, and still is, a necessity for the full development of human personality. Its aim is to enable everyone to make the fullest use of his innate

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(1) UNESCO , Final report, Conference of african states on the development of education in Africa, Addis Ababa, 12.25. May, 1961, P.48



potentialities whether intellectual, spiritual or physical. This is true now as it was , and will remain as such in the future. What has been neglected is the productive aspect of education from the economic angle. Andrew D. white had spoken of "the genius and talent of citizens as being the most precious of state treasures, and further that it was the duty of society to itself to see that the stock of talent and genius in each generation may have a chance for development." <sup>1</sup>

In recent years educational literature abounds with such new terms as "human capital" and "investment in man" exposing the role of education as a factor in economic development equal to land or capital. Recent statistical calculations have shown that the accumulation of physical capital explains less than half of the annual increase of production in the developed countries. The rest is due to increase in human skills and to better organisation of production. It is however difficult to measure the proportion of increase in production due to formal education since factors which contribute to the development of human capacity cannot easily be isolated. Nevertheless it is beyond doubt that education is a good investment which more than pays for itself in the narrowest economic sense.

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(1) Henderson , Algo g.9



Economic development and educational content

It is not enough to design the educational system in the way by which the quantitative needs of productive manpower as determined by economic development can be met. It is very important to provide the kind of education essential to satisfy the economic and productive functions of our society. The progress of science and technology , and the dependence of our material future and the maintenance, if not the raising, of our standard of living on this progress, necessitates more emphasis on the teaching of mathematics and sciences in all levels of education. The conference of African States on the Development of Education in Africa stated:

"If education is to be integrated with economic development and to pay its way in purely economic terms, one of the principal changes must be a shift in curricula away from philosophic and literary studies towards natural sciences and its various applications." <sup>1</sup>

It seems, however, that giving more emphasis on the teaching of sciences, mathematics and technical studies is not the whole problem. It is very important to dilute the technical studies with adequate general education. This applies to

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(1) Opcit P.10



technical training at both secondary and higher levels. For purely economic reasons technical training must not be isolated from general education. Technical training designed for flexibility and adaptability and transfer of skill is the best requirements for technical personnel. Modern industrial societies require their technically trained manpower with broad and general background to be able to adapt themselves to the ever changing environments of dynamic societies.

It is obvious that our modern industrial society cannot tolerate an antithesis between the scientific and the general studies. Our educational system must, therefore, try hard to build up a synthesis of our two cultures - the scientific or technological and the general or the liberal.

#### Priorities in Education

Investment in education is often high and usually pays on the long run. It is therefore important to avoid doing too much which might prove wasteful and even harmful. If education is to be brought into line with the demands of economic development and the financial capacity of the state, due consideration should be given to the problem of priorities in education.

It has already been noted that a rapid expansion of primary education at the expense of secondary and higher education may lead to unskilled unemployment on one side and shortages in high technical personnel on the other. It is well known that education creates high expectations, and an over-rapid spread of



primary education in the developing countries may create insoluble problems. The budgets of these countries may be strained by teachers salaries, their towns may be flooded by an influx of primary school leavers seeking clerical jobs, and high demands will be put on more facilities for further education which the country cannot afford providing.

It is true that an expansion of primary education will broaden the base from which better quality of secondary school pupils may be selected. But plans for economic and social development in the developing countries require immediate efforts to train such a great number of technologists, engineer, scientists agriculturists, teachers and technicians. If the biggest portion of education budget is to be spent on primary education to make it universal as soon as possible, plans for economic and social development may be handicapped as a result of shortages in middle and high technical personnel. Therefore, the adoption of a policy of universal literacy cannot be given the highest priority especially in the earliest stages of economic development at the expense of the expansion of skills at secondary and higher levels.

It is important however to note that universal primary education is not in question. The problem is a matter of priority at a certain stage of the country's economic development. A country which rapidly increases its national income through productive investment in developing its skilled manpower may reach this goal more rapidly than if it were to



neglect the early investment in secondary and higher education.

### Planning of education

The aforesaid problems illustrate the prime importance of the planning of education. Educational planning is defined in the following terms:

"Planning of education is concerned with governmental and private activities in order to have adequate education by stages and within defined goals, offering each individual a better chance to realise his potentialities and to make his most effective contribution to the country's social and economic development."<sup>1</sup>

Educational planning has as object to achieve proper balance in the educational development, and to relate this development to the plans for economic and social development. It is important therefore that educational plans should be closely bound up to the whole of the country's general development plan. .

The nature of educational planning dictates that it must be a long term one. There is always time lags in the formation of human capital. To train a primary school boy, for example to be a scientist or engineer requires some over fifteen years. It is evident, therefore, that effective educational planning requires an assessment of the needs for at least ten, fifteen ,

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(1) Ibid P.35.



or perhaps over twenty years into the future. This does not , however, deny the importance of short-term educational planning to meet the immediate needs for certain types of manpower such as supervisors, semi-skilled labour, technical specialists in certain jobs. A system of on the job training or accelerated training can be devised for this purpose.

One approach to educational planning is the manpower approach. Educational planning must be based on forecasting manpower requirements as determined by plans for economic and social development.

Another approach to educational planning is the cultural approach. Education has a purpose in itself irrespective of its economic and social purposes. Economic progress is not the only objective of societies. Each society must ensure that its educational system is able to bring up good citizens who have better education and enjoy better life with all its physical , intellectual and spiritual sides. Good educational planning must consider both two approaches.

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## Chapter II

### Education and the structure of Occupations

#### Changes in the structure of occupations

The only basis for building up an educational system is a thorough examination of the structure of occupations. Our aim must be to establish an educational system which can create a strong relationship between the occupational categories and the various levels and types of education.

Modern industrial techniques have exerted strong influence on the structure of occupations. Before the Industrial Revolution industrial work was artisinal. The craftsman or the artisan was the master, the designer as well as the worker. Apprenticeship was the sole method for entering a trade or industry. I

The introduction of mechanical processes in production has led to the division and subdivision of labour, and to a marked trend towards specialisation. As a result the number of occupations has grown enormously and their functions have widely diversified.

In the first place modern industrial society requires a great number of high level occupations. A big number of engineers, scientists, technologists .... etc are needed to work in the production sectors , in research and development. The ever developing services sectors are in bad need for doctors, teachers, lawyers..

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1- See, The Impact of Modern Technology on Education, by Dr.M.S. Fahmy, Memo. 276 I.N.P. 1963.



etc. Managerial and administrative occupations have extended greatly in recent years by the extension of big enterprises , and the trend towards planned economy.

In the second place modern industrial work has created new industrial functions which are now commonly known as intermediary or "technician" functions. These functions have multiplied enormously with the rapid technological development.

They become the keynote of industrial work, as they affect management as well as all ranks in industry.

In the third place technological development and the subsequent socio-economic changes have greatly developed what we often call clerical or co-ordinating occupations. Recent trends in the distribution of labour force by economic sectors give evidence that an increasing number of people are now employed in the services sectors such as distribution, commerce, transport and other activities in direct contact with the public. Other industries catering for travel, entertainment, sport, and other forms of recreation provide important sources of employment. It is obvious that a continuation of this trend will enormously increase the number of these occupations.

In the fourth place modern production methods have greatly altered the type of skill required. The importance of skill in its traditional sense ( skill in hands ) has been reduced, and more emphasis has been given to technical knowledge, intelligence, alertness, promptness and sense of responsibility.



The number of skilled workers directly engaged in the production of goods has proportionally decreased, while the number working in the making and maintenance of machines producing the goods has enormously increased.

Modern industrial techniques and specially automation have entrusted the direct production of goods to a group of semi-skilled workers generally known as "operatives". The operative is skilled in a certain production process. Therefore, by the increasing number of production processes due to the creation of new industries and the transference of manual production to mechanised and fully mechanised production, the number of semi-skilled occupations has increased enormously with the result of the rapid increase in the demand for semi-skilled workers.

Having briefly examined the new trends in the structure of occupations as affected by modern industrial and technological techniques, it is essential to propose a new occupational system. Three important elements have to be ensured in this system:

- a- It must be flexible enough to make room for future changes in the occupations,
- b- It must reflect an occupational pattern which exists in the most developed industrial enterprises from the technological and organisational point of view,
- c- It must reflect comparatively defined educational levels by which it would make it possible to convert a certain category of occupation to a certain level