
A System Approach to National Development and Educational Reform

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Rencana ini cuba menunjukkan bagaimana sistem pendidikan boleh dilihat sebagai sebahagian dari keseluruhan sistem sosial. Ia menegaskan bahawa dasar-dasar pendidikan tidak dapat dibentuk di luar dari Rancangan-Rancangan Pembangunan Nasional. Banyak masalah dalam masyarakat muncul disebabkan ketidaksesuaian (maladjustments) atau ketidakselarasan (discordance) antara sistem pendidikan dan persekitaran sosial, umpamanya, dalam Kes membantu mobiliti sosial golongan tertentu, dan dalam perancangan tenaga manusia. Adalah disyorkan bahawa pembaharuan pendidikan patutlah dipadukan dengan rancangan pembangunan secara keseluruhan; pembaharuan pendidikan patutlah bersifat asli, dengan mengambil kira keadaan-keadaan tempatan; dan pembaharuan pendidikan patutlah berteraskan penyelidikan baik.

Development

Economists, sociologists, politicians, anthropologists and many others have brought their varied expertise to the task of trying to unlock the mysteries of the process of national development. If agreement is not universal as to what constitutes development, the consensus is that development is not merely economic growth. Undoubtedly, among the major factors for overall development is economic growth. A minimum amount of economic well being appears to be a necessity for development to take place in the other areas such as social structures and political systems. Social, political and human development appears to be unfeasible in a poor society where the primary preoccupation is with hunger, disease and poverty. However, a country with a high Gross National Product or high per capita income would be considered to be underdeveloped if the distribution of income was grossly unequal, or if the majority of the population lived in servitude and under tyranny. Development, it is now clear, involves a complex series of changes in rates of growth — of output per capita, of literacy, of political participation, of geographical and vertical social mobility¹. Development is thus to be viewed as a multifaceted concept.

Development priorities may vary from country to country. The kind of development that is most desired will depend very much on the peculiar needs of the society. All countries desire economic well being, but in some countries the need for economic well being may be overridden by social and political needs. It may be necessary to give priority to social cohesion, if the country appears to be threatened by disunity. In Malaysia, economic growth enjoys a high priority, but national unity and social restructuring are given precedence. In its plural society the need for unity is considered imperative and it is felt that this cannot be achieved while one part of its population feels disadvantaged. Hence social restructuring forms an important aspect of national unity².

Preoccupation with development and the development process is of relative recency in man's history. Since the beginning of the 20th century and primarily since the Second World War, countries have become acutely aware of the relative differences in rates of development among countries. We find ourselves now in a period of planned development. Development can no longer be left to chance. Countries set their targets for economic growth, social change, and political advancement and chart the necessary strategy to achieve them. The last two decades may be termed the decades of the Development Plans. The Development Plans outline the priorities for development, the targets to be achieved and the means to be employed to achieve these.

Education and Development

Education reforms in Malaysia and many other emerging nations, especially prior to the last two decades, were introduced rather on an ad hoc basis. As particular demands and needs arose, they were met to the best of the ability of these nations. After the Second World War, educational development in most Asian countries was marked by a high rate of enrolment expansion. Governments everywhere stumbled to meet the great population explosion in schools. With nationalist feelings running high, the demand for education was tied up with all the aspirations of these new nations. More and more education for the people seemed to be the answer to all the ills of these nations, with little consideration to the kind of education or the quality of education. Quantitative expansion took priority, and most Asian countries committed themselves to the principles of universal primary education for their population. National plans and policies were expressed mainly in terms of enrolment targets. Expansion took place largely within the existing framework of education.

It may be said that educational policy was in the nature of a response to aspirations and pressures that arose from a rapidly changing social situation rather than a positive approach defining the aims and purposes of education in the newly emerging economic, social and cultural context. The major factor which dominated educational expansion after the end of the Second World War was not economic. It was the concept of education as a fundamental human right. Optimism about what education could achieve was high. Education was the key which would unlock the door leading to technological progress, the clue to the high living standards of the West. It was the way of escape from the labourer's hoe to the clerk's pen³.

Along with the tremendous quantitative growth there have been changes in education structures, curriculum, content and teaching methods. But, by and large these were overshadowed by the quantitative growth. In facing some of the problems posed by the population explosion in schools, realisation has come that educational reform should take place in the framework of some overall planning.

The analyses of recent national commissions and recent national policy statements and plans, such as the Philippines Presidential Commission of 1970 and the Second Malaysia Plan, reflect increasing awareness that educational policy has to be formulated within the wider perspectives of economic, social and cultural issues. Besides, it is realised that they should be on a longer time scale. Education should deal with the present problems and lay the foundations for the future. Thus has come the realisation of the need for educational planning in coordination with development planning.

Most theories of development allude to the contribution of education to development. It is generally implied that development is partly dependent on education, that education can affect the pace and degree of national development. Education is viewed as one of the tools or instruments that can be utilised for planned development. Although it is known that in western industrial countries development often preceded educational changes, impatience to be where the industrial countries are has led developing societies to regard education as the major instrument or tool of change. The view of education is thus strictly instrumentalist and functionalist in the process of development.

The role of education in Malaysia is spelt out in the Second Malaysia Plan. In Malaysia the education system is expected to be an efficient vehicle for the achievement of the national objectives of National Unity, eradication of poverty among all Malaysians, and the restructuring of society in order to correct racial-economic imbalance⁴. Underlying the Malaysian policy is the assumption that by making certain changes in the structure of education certain desired societal changes can be achieved. In Malaysia, where economic and ethnic boundaries have often run parallel, and where educational attainment is highly correlated with economic and occupational status, it is believed that by providing more education to the disadvantaged group, their social mobility will be assured. The consequent restructuring of society will therefore modify, if not remove, the traditional identification of ethnic groups with certain economic functions⁵.

A Systems Analysis

How should education be viewed in the context of promoting the greatest development? One method of conceptualising the relationship between Education and Development is to apply

the systems analysis approach to education. This method by no means provides the ultimate picture of inter-relationships between the two variables, but provides a useful tool for analysis enabling relationships to be viewed in perspective. The education system is thus viewed as a sub-system of the overall or whole social system. As such, to function effectively, all the parts of the education sub-system should be well integrated within the education sub-system, and it should be well integrated with the other sub-systems of the society. Intra-system and inter-system integration would ensure the smooth running of the education system and prevent any maladjustments or discordance between the education system and other sub-systems. Systems analysis clearly helps to show that changes in parts of the education system cannot be introduced without affecting other aspects of education, and that changes in education cannot be introduced without affecting many other facets of society.

Systems analysis has been described as "a method for examining an education system, not piecemeal where every facet stands out alone, but as a system — a system with interacting parts that produce their own indicators as to whether the interaction is going well or badly."⁶

Seen from the systems viewpoint, it is clear that any disparity between the education system and the social system is likely to affect the efficiency of the overall system. If overall national development is desired for maximum contribution, efforts should be made to ensure that the systems are working in harmony.

In common with all productive undertakings, the education system has a set of *inputs*, which are subjected to a *process*, designed to attain certain *outputs*, which are intended to satisfy the system's *objectives*⁷. These form the dynamic whole and if one is to evaluate it, improve it or reform it, the relationships between its critical components must be examined in a unified whole.

For maximum efficiency of the education system in development, it would appear that there should be no maladjustment between education and other systems. The significance of such a view to educational reform would appear to be that education reforms per se are insufficient. If education reforms are introduced to effect changes in society, then, it may at times be necessary to make changes in the environment too.

Maladjustment Between the Education System and its Environment

Many examples of maladjustment between the education system and other systems may be witnessed. Coombs has stated that the disparity between the education system and its environment is the essence of the world wide crisis in education.⁸ The nature of this maladjustment may be illustrated in many areas affecting development of societies. However in this paper the writer shall be able to draw your attention to only a few major areas of discordance which have been highlighted by educational research.

Discordance Between Principles and Practice

Let us examine the workings of the principle of equality of educational opportunity in societies. Most governments support this principle and strive to provide equal educational opportunities to all their children. In Malaysia, for instance, every child may attend school for nine years and take his place in society according to his educational attainment. Theoretically it appears to be a very *open* system. In fact, however, the system is *closed* to people from certain social classes and certain geographical areas. Educational research has established that on the whole children from better social background have higher educational achievement than those from low social background. Invariably urban children achieve better than rural children.

One of the important findings of research points to the fact that equality of opportunities is not merely a function of access to school. To achieve democratisation of education through the expansion of education, many other factors have to be considered. Family and environment variables are especially important in determining school achievement. The type of nourishment, and socio-cultural surroundings the child grows up in before going to school are significant factors. Either social background disadvantages have to be overcome in school, or sufficient welfare services have to be provided to give the children from different social backgrounds and equal chance in school. The experience of many advanced countries with their Head Start programmes and welfare services has generally been that while the differences may be reduced, they are not easily

eradicated. Therefore, it is now clear that the disadvantages of the rural and the low social status are almost insurmountable by simply providing more schooling. If no other adjustments are made in the environment, the disadvantaged groups will certainly be unable to develop their capacities to the full or contribute positively to the development of the country.

Thus, legislating for universal education alone will not bring about the desired social changes that are visualised. If education is to be effective certain changes in the environment may have to be carried out. To give the children from different homes a more *equal* chance, education may have to be carried to the homes; parents may need training in child upbringing and feeding. That is, we may have to educate the parents before we can educate the children.

Education is believed to be one of the most important channels of vertical social mobility in the modern world. As such societies with wide regional and ethnic imbalances hope to utilise education as the means to social reconstruction. By providing better educational facilities to the disadvantaged group it is hoped that persons from low social status will move up to high social status. This of course can only happen if employment opportunities are equally *open* to all. This, however, does not always happen. It has been found that given equal education those with higher social origins will enjoy a higher status⁹. The head start enjoyed by those from high social origins seems to be difficult to beat.

Once again if education is to be used as a means of social engineering, it must be borne in mind that the provision of education alone will not be sufficient to improve the disadvantaged groups. If their mobility is to be ensured and some genuine social reconstruction is to take place, many other social factors such as employment opportunities must operate with no biases to any social group. It is not surprising that in countries such as Britain, despite the availability of free and compulsory education for all, the social structure has not altered very significantly in the last half century. In fact it is often argued that education has been used to maintain the status quo. Those in high status provide better education to their children than those in low status positions, and armed with better education their children acquire better positions in society.

In Malaysia too, instead of changing the social structure, education has to quite an extent perpetuated the existing social structure. In a Petaling Jaya sample of heads of households of those with higher education 66.2% had fathers in high status occupations. Also, of those with high status fathers 69.1% retained the high status enjoyed by their fathers¹⁰.

Discordance Between Needs of Society and the Educational Output

A characteristic of the post-war period is the great increase in demand for education as to merit the term 'population explosion' in education. Societies have tried to meet this demand, and to transform their elitist education systems into mass education systems. At the same time these societies have indicated that education is an instrument of national development, primarily an instrument of economic growth. One problem that has arisen from these objectives is that while many people demand education, they do not necessarily demand the kind of education that is likely to be of the greatest service to themselves or be in the best interests of national development. Education and job preferences are often dictated by the prestige enjoyed by these jobs, a prestige often based on a prestige hierarchy of the past. In most Asian countries, for instance, the demand is for academic education in the humanities, while the need of the developing economies is for skilled manpower.

In some countries the supply of skilled manpower, especially at the intermediate and higher level has fallen considerably short of the increasing demand of a developing economy. In other countries the problem of the 'educated unemployed' has become a major concern. While having *educated unemployed*, there are sometimes shortages in important categories and levels of skills. ECAFE describes this as structural "unemployment which means that the educated are refusing to take up available jobs in the wage sector at levels below those to which they believe their education entitles them."¹²

Another area of maladjustment is in relation to the sectors of the national economy, especially agriculture and other sectors such as the Industrial and Service. Jobs are generally preferred in the industrial sector in manufacturing, mining and construction and the service sector. But these popular sectors can absorb only a proportion of the labour force, and it is still up to the agricultural sector to absorb the greatest part of the increasing labour force. The technical breakthrough

in agriculture has highlighted the shortage of technical manpower in the agricultural sector. Farmers need to acquire new skills to cope with modern agricultural techniques. The existing contribution of education in providing these skills for increasing agricultural productivity is out of line with the overall development needs.

There is thus a serious disjunction between the nation's education demands and the nation's actual manpower needs¹³. Such an imbalance signifies that the available manpower is not deployed in ways conducive to development. To achieve maximum development the education demand and the manpower needs have to be better aligned. The significant issue to be considered therefore is "how the content, methods and output of education can be related to the realities of the labour market and the world of work."¹⁴

Development and Educational Reform

Education has been shown to be closely associated with various aspects of national development. If education is to be an efficient instrument of national development, it follows logically from the preceding sections that the maladjustment within the education system and between the education system and its environment must be eradicated or reduced.

Clearly a time has come for developing countries to view their education systems in their total range and re-examine their goals, structures, content and methods with a view to adapting it more effectively to the needs of national development. An important consideration to be borne in mind is that the examination should not be limited to the education system as it is viewed from within. It should also see education in its external socioeconomic context.

Education reform and development should be viewed as being connected inseparably. Education reforms should be integrated with overall developmental objectives. Education interprets and reinterprets national goals. The goals of education which will decide the kind of educational reform to be introduced must be thought of in terms of overall national development objectives, both economic and social. Education objectives should be clearly and operationally stated, not only in terms of physical targets but also in terms of changes in values, motives, attitudes, etc..

No reform can be considered to be the definitive or final *blue print*. Changes and reforms introduced have to be finally tested on the ground. The experience thus acquired is fed back into the process of policy making to carry out readjustments. "The conception of a reform, the programming of the measures needed to give effect to the reform, implementation of these measures and readjustments and corrections are linked together in a continuous process".¹⁵

If educational reforms are to be a continuous process of contribution to national development, there is a great need to evaluate the education reforms introduced. Education reforms must be closely linked with a system of research and evaluation. Problems besetting education need to be examined thoroughly in a scientific manner. There is need to know that the education system is doing for the society what it sets out to do. For instance, when places in school are provided for all children, it is important to know if all children who should be in school are in fact in school. If not, what proportion are not? What proportion drop out and for what reasons? The Dropout Study 1973 was an example of research to evaluate the school system and reasons for the educational wastage in Malaysia. When education is being used as the means to social reconstruction, we need to know if the social engineering is working. Our education system is geared to promoting national unity, and we need to find out if the education system is in fact socialising the students properly into the ideals of the society, or whether it is acting as a subversive agent and successfully alienating the students. Issues of this nature that need to be researched to keep the education system viable are numerous. It is suffice to emphasise that there is need for continuous research to check that the education system's output is the desired output.

Well integrated education reforms will be cognizant of the constraints within which changes have to be introduced. They will take account of the needs and resources of the society into which they are to be introduced. That is, they will not adopt any overall development formula or educational reforms that have been successful elsewhere without examining the context of the society. Developing countries are often guilty of introducing hastily imported educational innovations, without thought as to how they will fit into the rest of the system. Formula for education reform

and national development must be modified to suit the specific needs of the particular country. Reforms in a sense should be *indigenous*. Wildly successful curriculum, science programmes and enrolment ratios may not be workable in some developing societies for any number of reasons. Lack of resources, teachers, materials, text books, teaching methods, and attitudes can all work against the success of such projects. The acceptance of general principles such as the provision of universal primary education may be more realistic for some countries than others, depending on past achievements and present resources. This principle accepted in 1960 to be achieved in 20 years was more realistic for Malaysia than Indonesia. Hence, any regional plan for development has to be modified and adapted for local needs.

As a result of such changes development may be slower but surer. There would be less likelihood of expensive projects being dropped. At the same time if more local or indigenous experts are encouraged and given the moral and financial support accorded to visiting consultants, there would be greater continuity.

Conclusion

To sum up it may be stated that educational reforms should have the following characteristics in a developing society such as Malaysia:

1. They should be well *integrated*, that is, they should form part of an overall development plan. Development may be expected to be smoother if all the components of the education system are well integrated and if the education system is in turn well integrated with other sub-systems of society.
2. They should be *indigenous*, that is, initiated to meet the local needs taking cognizance of the limitations of resources, personnel, and past achievements.
3. They should be recommended on the basis of sound research findings. Continuous evaluation is necessary to ensure that the education changes are doing what they are expected to.

Note

¹ N.J. Smelser, and S.M. Lipsit. *Social Structure and Mobility in Economic Development*. London: Routledge and Kegan Paul, 1966, p.2.

² *Second Malaysia Plan*. Kuala Lumpur: Government Printers,

³ UNESCO. *Development of Education in Asia*, Paris. 1971, p.61, and Howard Hayden, Higher Education and Development in S.E. Asia, UNESCO and IAU, 1967, p.200.

⁴ *Second Malaysia Plan*. pp. 1 and 222.

⁵ Jasbir, Sarjit Singh, "Education and Social Mobility in Malaysia: A Case Study of Petaling Jaya," Unpublished Ph. D thesis, University of Malaya, Kuala Lumpur, 1973, See Chapter III.

⁶ P.H. Coombs, *The World Educational Crisis: A Systems Analysis*, New York: Oxford University Press, 1968, p.4.

⁷ P.H. Coombs, *The World Educational Crisis* (1968), p.9.

⁸ P.H. Coombs *The World Educational Crisis* (1968), p.4.

⁹ Jasbir, Sarjit Singh, "Education and Social Mobility in Malaysia". (1973), p.241.

¹⁰ Jasbir, Sarjit Singh, "Education and Social Mobility in Malaysia". (1973), p.76 and 165.

¹¹ P.H. Coombs, *The World Educational Crisis*, (1968), p.7.

¹² UNESCO, *Development of Education in Asia*, (1967), p.65.

¹³ "Asia's New Job Problem", *The Malay Mail*, 30th March, 1974, p.15.

¹⁴ UNESCO, *Development of Education in Asia*, (1967) p.66.

¹⁵ UNESCO, *Development of Education in Asia*, (1967), p.76.

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