NEW TRENDS IN EDUCATION

S. SANDARASEGARAM

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FOREWORD

Professor S. Sandarasegeram has worked in the field of education for a long period. His writings and addresses on education have ranged over a wide area covering a broad spectrum of themes. His past performance indicates that he is quite competent to comment usefully on, and evaluate the new trends in education.

This commendable new study by Prof. Sandarasegeram focuses his critical attention on important aspects discernible among the new directions one could identify in the emerging form and substance of education as one century is yielding place to another millennium.

Most of the studies that comprise this balanced publication by Prof . Sandarasegeram commences with a succinct historical introduction and ends up with value-based assessments as well as sound suggestions for improvement that matter in the new trends that are emerging along with changes in the sphere of education in current times.

Although specially designed for those with a particular interest in policy making in the educational environment and implementation of new thinking into the practice of education, yet it is also an invaluable source of information to lay people alike. From early days to modern times, education has been the concern of all those who make up society, and I am confident that many would benefit by reading this provocative book.

The essays assembled together by Prof. Sandarasegeram inform and impress, and leads the reader through an exciting journey of exploration. The narrative , analysis, and argued conclusions evident in the articles are interesting. On the whole one recognizes by reading this book, how much still remains to be done to transform education into a process that would inculcate among people the practice of critical and independent appraisal of information for intellectually building up the whole person.

594/3, Galle Road,
Colombo - 03.
4th August 1999

Prof. Bertram Bastiampillai
(Parliamentary Commissioner
for Administration)

1. Education and Social Transformation

Introduction

One of the most striking features of the formal education system during the Twentieth Century has been its impact on the process of social transformation in both developed and developing countries. In a broader sense, the concept of social transformation encompasses the positive developments that take place in the standard of living, economic well-being, equal access to education, employment opportunities in the modern industrial and commercial sectors, attitudes toward modernity and political participation in the democratic process. All these elements are also identified as important social dimensions of the development process. Strictly speaking social and cultural development mainly includes changes in attitudes, values, and behavior, the satisfaction on human needs and structural changes, including upward social mobility, and occupational structures. Functional theorists argue that if only new nations had more people who possessed desirable normative traits and values regarding the deferment of gratification or savings, entrepreneurial ability, creative risk-taking, achievement motivation, or currently, attitudinal modernity, then these countries could close the gap between themselves and the rich developed national far more rapidly.

Role of Education

Given this social transformation perspective, education offers an attractive and logical institutional solution for the

problems of national development. Education potentially offers the most important institutional means for improving the quality of human capital. Education is also seen as the chief social agency for training the young for competent adult role performance and for socializing them to the value consensus upon which society's stability is believed to rest. Education thus becomes the central means of remedying those diagnosed with psychological deficits which are believed to cause the individual's mobility up the linear occupational ladder and thereby inhibit the overall development of the community to which he or she belongs. This viewpoint also presumes that education provides a relatively just environment where children from all social strata have a fair opportunity to improve their prospects on the basis of universal achievement criteria. Much of the research literature assumes that education affects society by directly socializing individuals to value the skills and attitudes crucial to the maintenance and development of modern institutions. These desired social outcomes are viewed as being primarily shaped by the internal properties of schools. As a result, educational reforms have focused on the impact that different pedagogical methods, curricula, student / teacher interaction and school organization have on students.

Much of the policy and planning in education and development is implemented from the perspective of modernization. According to researchers, a modern person is characterized by the following :

i. Openness to new experiences.
ii. Readiness for social change.
iii. Fact-oriented in the formation of their opinions.
iv. A focus on the present and future, rather than the past.
v. Trust in social institutions.

vi. Placing a premium on technical knowledge and skills.
vii. Showing a high regard for education.
viii. An awareness of diversity and different opinions.
ix. Understanding of the logic underlying production and industry.

Furthermore, the modernization theorists hold that people do not become modern unless they participate in modern institutions, the chief of which are educational institutions (schools) and industry (factories). There is research evidence to support the notion that higher levels of education stimulate higher aspirations, less adherence to traditional customs and life styles, a greater openness to new experiences, an increased willingness to migrate and a reduction in family size. In studies conducted in Argentina, Chile, India, Bangaladesh and Nigeria, researchers have found a strong correlation between the level of education attained and an individual's level of modernity. Another aspect of social development concerns quality of life and the meeting of basic human needs. When there are major disparities in the distribution of material goods such as food, shelter and clothing, a large proportion of the population are unable to contribute to the development process. Research studies have indicated that the level of literacy is related to the provision of basic needs, a reduction in the infant mortality rate, adequate nutrition and the supply of clean water and health care. The relationship between education and quality of life, as well as the ability to meet basic needs parallels the process of modernization, in that both focus on changing people.

While education has primarily had a conservative function in the past transmitting relatively static cultural and traditional skills to new generations, schools may also be expected to serve as agencies for social transformation or

social reform. In this case schools are used to build a new social order, rather than perpetuate the old one. Many scholars and political leaders propose and adhere to the following beliefs :

I. A higher level of national education will ;
   i. increase the likelihood of social transformation and democracy.
   ii. foster a more progressive set of national values.
   iii. increase the standard of living.

II. The provision of equal educational opportunities will ameliorate the plight of the underprivileged.

In each of these propositions, the institution of education is identified as a causal factor which can be manipulated to resolve certain national problems.

Limitations

While emphasizing the role of education in social change and social reform, one should be mindful of the limitations in effecting such a transformation through education. A brief summary of these limitations is listed below :

I. The relationship between education and social change is not as straightforward as is implied by its proponents.

II. An expansion of educational facilities would not necessarily lead to economic growth, but could generate an economic crisis (Coombs, 1968). It is misleading to assume that investment in education will stimulate economic growth. (Weiler, 1978).

III. From a neo-Marxist perspective, education leads to the perpetuation of social inequalities.

IV. Investment in education can and does have negative effects in economic growth (Carnoy, 1985).

V. Under certain circumstances schooling could reinforce traditional values, rather than promote modern ones.

VI. The consequences of modernization on social development can be negative, including the destruction of useful traditional social institutions, the disruption of social relationships and the creation of a modernized elite who are out of touch with the general population.

VII. The school system is only able to provide small-scale solutions to the problems of the underprivileged. Increasingly we have come to realize that the provision of formal equality does surprisingly little to eliminate educational privilege, as many children, due to their home background are unable to take advantage of the opportunities that are made available to them. Accordingly, attention should be focused, not simply on the removal of barriers to equality, but also to the provision of special privileges for those who would otherwise be handicapped in terms of their educational achievement. (Olive Banks, 1972).

VIII. The relationship between educational and social development is too complex to assume that increased investment in education will achieve the desired results. It is possible to over invest in education or invest in the wrong kind of education. As with most economic goods, the incremental benefit from education will probably start to become increasingly smaller after a certain point.

IX. The concept of education producing or impeding social change is highly problematic and made more complex by the fact that the educational system itself is part of the society which is changing. The schools themselves are likely to function as important agencies within a highly stratified society and hold strongly to elitist principles. The function of education as a process that innovates social change is hard to reconcile with its traditional role of transmitting the elitist culture.

These limitations are not meant to imply that education is not important or necessary. Education, in so far as it increases the knowledge, creates the necessary conditions for the individual and society. In addition, the expansion of knowledge through new technology means that it is virtually impossible to pursue social development policies without providing for an educated population. The conclusion is that for most individuals and for society, schooling is a good investment because there are substantial social benefits that are derived from education. As a result, education should be taken very seriously and it should be well supported. The limitations of education as a universal panacea should not lead us to minimize the importance of our knowledge about the educational institutions in society.

Educational Developments in Sri Lanka : Some Salient Features

A broad social and political consensus about the purpose of education as a channel for social mobility was in place soon after the introduction of universal franchise in 1931. This democratic reform created a momentum for social change

and Dr.C.W.W.Kannangara, the first Minister of Education during the State Council era, provided the political force for the egalitarian ideal in respect to school education. This resulted in the implementation of the Free Education Scheme in 1945. The main concern was to reduce socio-economic inequalities through access to education. Education was perceived to be a fundamental human right and an agent for upward social mobility during the post 1940 era. Attempts were made to dislodge the colonial power structure in educational administration to facilitate an expansion of the school system to provide access to the underprivileged. The State Council endorsed a number of policies between 1931 and 1947 aimed at reducing the privileges and imbalances that had plagued the extension of educational opportunities.

Along with the Free Education Scheme, 54 Central Schools were established island-wide in rural areas between 1940 and 1947 with the intention of promoting a more equitable distribution of secondary education. Up to this point secondary education had been restricted to urban English schools. A scholarship system providing free board and lodging was introduced at each of the Central Schools offering access to secondary and higher education to students from rural primary schools. Another measure introduced, was the provision of a mid-day meal for needy children from poor households.

During the colonial rule, English education was the agent for upward social mobility. A small westernized elite of mixed ethnic composition through their access to fee-paying English schools were able to reach the higher echelons in the government service and in society. Social class differentiation was based on economic resources and language. The English School System was mainly confined to districts such as Colombo and Jaffna where the Indian

Tamil population was insignificant. At least some sections of the Sri Lankan Tamil and Sinhala communities were in a position to have access to upward social mobility through the bifurcated system of school education during the colonial era. The opportunities provided by the English school system for upward social mobility could not be used by the Indian Tamil community which was totally dependent on the unskilled and low-paid jobs provided to them by the plantation system. As a result, the social mobility that stemmed from access to the English school system was confined to the indigenous Sinhala and Tamil communities. Historically, the Indian Tamil community lagged behind the other communities in respect to educational achievement. This was primarily due to the communities inability to utilize the educational opportunities provided through the English schools system by the colonial administration.

More than 85% of the Sri Lankan children who went to school during the colonial era were in so-called for free 'vernacular' schools which were mainly limited to rudimentary training in the three Rs conducted in the local language. In the plantation sector, almost all the children were confined to primary schools established by the plantation management. All these vernacular and plantation schools provided very little opportunities in terms of access to remunerative employment and upward social mobility.

Another educational reform of paramount importance, introduced to promote equality of educational opportunity, was the use of the mother tongue as the medium of instruction throughout the education system. This process began in 1948 in the first year of the primary cycle and in the first year of university arts course in 1959. This reform reinforced the notion that all children, not just the elite, could reach the pinnacle of educational success.

Since 1940, several measures were introduced to eliminate the socio-economic inequalities created by colonial policies and educational reforms were used positively to promote social equity and equality of opportunity in education. The cumulative benefits of these educational reforms are summarized below :

I. Male literacy rates (as given in census data) increased from 76.5% in 1946 to 85.6% in 1963 and female literacy rates from 46.2% to 67.1%.

II. Increases in literacy rates resulted in improvements in health indicators and influenced family size.

III. Education participation rates increased dramatically in the 1950s and 1960s and urban, rural and gender disparities declined rapidly. While 50% of the school age population and 75% of the girls had been out of school in the 1930s, the age specific participation rates for the 5 to 14 age group increased to 77% for boys and 73% for girls in 1963; enrollments in grades 9-10 doubled from 69,000 in 1952 to 151,000 in 1957 and nearly doubled again to 294,000 by 1965; in grades 11-12, better known as university entrance classes, enrollments increased from 5,000 in 1952 to 24,000 by 1963 (Jayaweera, 1979).

IV. Arts faculties of universities saw a threefold increase in the number of students within a period of five years from 4,040 in 1959 to 15,220 by 1960. Several studies of university entrants in 1951 and 1967 indicated the transformation of the social composition of the university students population from an elitist middle class to a more egalitarian student distribution (Jayaweera, 1989, p.4). In 1967, 73% of students were from village and town council areas and only 34% were from the middle class. University education in the 1960s thus functioned as an agent of social mobility for a significant proportion of students from the less affluent urban and rural populations.

Impact on Society

Expansion of education during the post-independence era has been one of the crucial factors in several facets of social transformation in Sri Lanka since independence. During the colonial era, the English educated elite constituted an influential, articulate and privileged section of society. The Sinhala and Sri Lankan Tamil Western educated elite sought to share power as successors to the colonial government and also competed for higher level employment. It was this section of the society which gave the leadership to the Sinhala and Sri Lankan Tamil communities since 1900 and played a key role in introducing welfare packages pertaining to education and health. The English educated elite was a relatively exclusive circle, distinguished from other sections of society that formed a middle or lower middle class by their education, occupations, incomes, wealth and life style. The modern educated middle class included the clerical and other non-manual workers in government and mercantile establishments and the majority of teachers in English schools (Ralph Peiris, 1964). While these developments were mainly confined to the indigenous Sinhala and Tamil communities, the Indian Tamil plantation community did not experience similar changes in social structure due to the absence of opportunities for access to urban English schools.

Alongside the English educated elite, there were two other sectors of the educated population which emerged among the Sri Lankan communities as a result of the widespread system of vernacular schools. First, there were the better educated Sinhalese and Tamils who were still unacquainted with English. They owned no landed property and were from the middle and lower orders of society. This vernacular educated class were relegated to traditional

professions such as Ayurvedic medicine, retailing and astrology, as well as the lower posts of the public service such as peons or minor staff, where no knowledge of English was required. Second, there was a rapidly increasing strata of people with a modern Western education, who still had not received the same level of education as the professional and public service elite.

The social outcome of impact of colonial education policy on social stratification, as described above, was subject to a great deal of criticism. These outcomes were a result of a highly discriminative secondary school system that emerged during the British colonial period. The three types of schools, the English schools, the Anglo-vernacular schools and the vernacular schools offered different levels of employment and social prestige (Rupasinghe, 1983). As observed by Jayasuriya 'the combined effects of these dualities was that educational provision was unplanned, unevenly distributed, wasteful of human and financial resources and, above all, access to a quality education was by and large denied to the mass of the rural population and the urban poor (Jayasuriya, 1981, p.85).

Despite the shortcomings, demerits and adverse impact of the colonial educational system on society, the establishment of English schools, vernacular education and the increase in general levels of education did contribute to the long term social progress of the Sri Lankan communities. It is emphatically argued here that these benefits did not reach the plantation community which was provided with only limited learning facilities. The plantation management assigned a very low priority to building schools and employing teachers and most of the schools that did function were only up to year 3. As a result, there was a vast gap in the educational attainments of the children of the plantation workers, in comparison to those in other parts of the country.

Several socio-economic surveys carried out since independence reveal the impact of various educational reforms pertaining to democratization of education for urban, rural and estate populations. Again, despite several drawbacks and dysfunctional aspects of the educational system, its role in enhancing the educational level of the people is unquestionable. Average figures for all island population indicate a substantial increase in the secondary educated population; in 1953 it was 9.8% and in 1978 it reached 26.45; the consumer finance survey of 1985/86 gives a much higher figure of 36.1%. The same survey has found that only 12.1% of the plantation people were educated up to secondary level; 31.5% of them were illiterate whereas only 7.0% of the urban population was illiterate. These lower educational levels for the plantation population have been a contributing factor for the relatively insignificant degree of social mobility this community has achieved since independence. In Sri Lanka, a 'growth of state involvement in a free education system and the establishment of links between qualifications and governmental jobs contributed to a social mobility through, qualifications and the acquisition of a government job (LittleA.W, 1997). Moreover, 'the imbalance between the growth in qualifications led.... to a growth in qualification escalation, i.e. raising of qualifications for the same job over time. Research studies have confirmed the existence of qualification escalation during the 1960s and 1970s....(it) was apparent in both the public and private sectors of employment .... it was particularly visible in the public sector recruitment (Little A.W., 1997). These trends along with the absence of a policy of affirmative action in respect of the plantation population has led to a situation where only 1% of the state service employment was secured by people of Indian Tamil origin. In provincial services and semi-government services their share is only 2.9% and 5%

respectively (Manikkam P.P., 1995). As far as the state service is concerned, out of a total number of 180,000 government teachers, only about 4,500 are of Indian origin. The importance of state service employment for this analysis is that it signifies a considerable degree of upward mobility for the plantation community. However, it had only a very limited opportunity to obtain state sector employment. Shift from the agricultural sector to a modernized tertiary sector especially in the state sector for educationally and economically disadvantaged communities in Sri Lanka is one of the main paths to upward mobility. For the members of this community, this involves leaving the plantations where education was neither necessary nor had any survival value ;

Over the last 100 years there appears to have been a slow and gradual change in the proportion of the population employed in nonagricultural occupations. The percentage of persons employed in non-agricultural occupations in 1901 was estimated to be around 34%. This figure increased to 55% in 1995. This figure is a key indicator used by development theorists to measure the process of modernization in a society (Dore, 1976). In the Sri Lankan context, this shift appeared to be slow in the post-independence period between 1953 and 1990 (see table below).

Proportion of the population employed in Non-agricultural occupations 1891-1990

	1891	1921	1953	1971	1981	1990
% in Non-Agri. Occupation	30	37	47	48	52	55

Source: Annual Census 1891-1946, Sri Lanka Labor Force Survey, 1990, Quoted in Little, 1997.

Policies designed to shift the sectoral composition of the economy away from agriculture toward industrialization and services were too slow and therefore these shifts have been minimal. It is argued here that this slow pace of change over to non-agricultural occupations was mainly due to the stagnation of the plantation community which remained in plantation occupations. This occurred due to the limited opportunities for upward social mobility that have been made available to this community.

Conclusion

Formal education has played a very important role in the transformation of society and social change, encompassing increases in standards of living and upward mobility resulting from the liberal reforms and democratization of education in Sri Lanka. The plantation community was provided with rather inadequate facilities for secondary and higher education both before and after independence. Whatever expansionist education policies have been introduced by the state have mainly impacted on the rural and urban populations. The plantation community has remained a passive observer of these developments relating to literacy, educational level, decreases in infant mortality, and the upward mobility associated with recruitment to government and semi - government positions. What is necessary is a survey of the present socio-economic conditions of the plantation community, so that a comparative analysis can be done concerning the level of social transformation. A policy of affirmative action should be implemented, encompassing measures to correct or compensate for past or present discrimination. Such affirmative action requires actions to be taken to ensure that groups previously excluded from employment are included in those

activities to overcome past disabilities. The ultimate goal of affirmative action should be the achievement of a fair representation for plantation community in all areas and at all levels of employment in the state and semi-government sectors. Taking the widening gap between the plantation community and the rest of the Sri Lankan population in social transformation and especially in upward mobility into consideration, this appears to be a vital policy option to be pursued in fulfilling the objective of providing opportunities for societal changes in respect of the plantation community.

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2. Education and Economic Development

- an alternative view point

Under the pressure of material progress, technological advancement and modernization of various sectors of the economy, the demand for utilizing education to achieve economic objectives has been constantly on the rise in most of the developing countries.

The main policy implications to emerge from this perspective, focus on the benefits of and the need for investment in human capital which emphasized the role of high-level manpower in development. This resulted in focuses on the expansion of secondary and tertiary level technical and vocational education and on questions of efficiency and the economic returns to different levels of schooling.

Specific findings were that the rates of return were highest at the primary level. The returns from education were higher than that of investing in physical capital (ex : machinery and other infrastructure facilities) and the returns for general education were greater than those for technical and vocational education.

The underlying assumptions in the link between education and economic development are those of human capital theory, whereby any improvement in the health, skill, or motivation of the work force are seen to improve the productivity of workers. If education brings about improvements in the quality of the population, it is seen as a contribution to the economic development of a country.

A number of development thinkers have attempted to identify these significant deficit traits in the developing countries, crucial for the acceleration of the development process. According to them the people of these countries should possess desirable traits and values regarding entrepreneurial activity, savings, creative risk taking, an achievement motive or attitudinal modernity which could be inculcated through the educational process. They assume that education affects society through the direct socialization of individuals to those, attitudes and values deemed crucial to the maintenance and development of institutions engaged in economic activity.

These desired outcomes essential for development are viewed primarily as being shaped by the internal properties of schools. As a result, educational development policies have focused upon curricula, pedagogical methods, patterns of student-teacher interaction and varieties of school organization.

Researchers have provided the most comprehensive evidence that investment in education does result in economic growth. For example, a review of 31 studies of rural areas showed that farmers with educational attainment of four years increased their productivity by 8.7 percent. It is also pointed out that one consequence of higher levels of education is the opportunity to change to jobs with higher skill demands and income; moreover, the rates of return to individuals are on the whole greater than those to society, and the discrepancies are greater for the higher education level than for the primary school level.

In recent times, the rapid development of East Asian Countries of South Korea, Taiwan, Hongkong and Singapore has been explained in terms consistent with a simple version of human capital theory which results in a generalized call for investment in education. According to the IMF, Japan

and South Korea committed themselves to education and training and therefore made great strides in both human development and economic growth.

In recent times, alternative views are expressed by economists and social science researchers who suggest that the relationship between education and development is not as straight forward as is implied by the thinkers of previous generations. They have questioned the validity and utility of conventional interpretations of the effects of education. It is argued that the earlier theories simplistically predict how education functions in society.

It is accepted that the schooled are more productive and more participative than the unschooled, but sufficient evidence is lacking for the contention that these traits are the outcome of several years of schooling and its socialization process.

Recent research has produced findings which indicate that the observed relationship between school education and socialization relevant to economic growth maybe largely caused by factors other than internal properties of the school (curricula), pedagogical methods etc. and instead, a consequence of a complex interaction between internal school features and the larger school structure in which the school is located.

It has been found that schools with similar internal properties often produce similar socialization outcomes among their students. A Malaysian study has revealed that even when the schools are successful in bringing about desired socialization changes in their students, these changes do not persist for long after the students leave schools and are confronted with complex realities of adult life and world of work. It is also argued that better educated workers are not necessarily more productive than those with far lower

levels of education, since many of the skills that are associated with higher productivity are learned on the job rather than in school.

Although there is some research evidence for the proposition that education can produce individual socialization traits such as attitudinal modernity and achievement motivation, the expectation that such traits in, 'individuals will produce the desired societal level change has not been empirically demonstrated. Since the 1960s economists have also contributed enormously towards this alternative viewpoint regarding education and economic growth. They started arguing that the expansion of educational facilities would not necessarily lead to economic growth, but rather to an economic growth brought about by the costs of maintaining larger and sometimes, irrelevant systems of education. They questioned the notion that educational expansion would automatically lead to economic growth.

In fact, it is possible to overinvest in education, or to invest in wrong kind of education. For example, developing countries appear to have made too much investment in higher education and too little in primary education. India and Sri Lanka have experienced the problem of graduate unemployment in spite of latter's low-enrolment rates of 2% at university level. Over-investment in education also appears to be a potential problem in some of the developed countries, such as the United States whose current enrolment rates for higher education (60%) are double those of countries like Sweden and Japan.

These criticisms continued in the late 1980s and early 1990s with more vigour and it was argued that explanations about the link between education and development should include institutional and sociological factors in addition to economic factors. Moreover, the proponents of neo-Marxist political

economy went to the extent of complaining that education leads to the 'reproduction of social inequalities'.... 'The educational system is not an autonomous institution. It is only a sub system, embedded within the larger structure of society'. As such, they argue, education reproduces and even generates the conflicts that exist within the society as a whole and it is not simply that the schools magnify conflict; in the rapidly changing plural societies, education is itself frequently the source of that conflict. In this context, the Sri Lankan example indicates how changes in the university admission policies in 1970s. frustrations created by inadequate university seats and denial of employment opportunities for educated youth, triggered internal conflicts of serious proportions which engulfed the whole nation. No wonder, the researchers have suggested that the investment in education can and does have negative effects on development.

The manpower approach to educational planning which consists of long-term forecasts of the needs for skilled workers based on trends in gross national product growth no longer plays any significant role in the overall planning process of Western European countries. First, the future has simply become too difficult to predict with any degree of accuracy. Second, demand factors are no longer sufficient to guide the development of education and training. In other words, the supply of education and training places is no longer geared to the economic needs of the country but to the social needs of young people leaving compulsory schooling.

All the policy implications suggested by this thinking and trends can be reduced to a single formulation; development planning and educational policy makers should be far more modest in the expectations they have for education as an institutional solution for the complex problems of nation

building. There is a need to de-escalate the traditional belief in the potential of education.

Education does not have a direct and lasting effect on the ways in which the school going population will influence the economic development of the nation. Clearly the issues are related to questions of what kind of education, what kind of economic growth, and growth for whom?

In spite of much research and discussion, the relationship between education and economic development is not fully understood and consensus on this issue among researchers and policy planners does not exist. The relationship is too complex to assume that any investment in education will produce favourable results.

3. Human Resource Development and Education

In recent times, especially since the 1950s, the relationship between education and development has been the centre of much discussion. The most common understanding of education and development has been in terms of economic growth. Theories of economic growth agree that one of the important components of progress has been the human dimension; the quality of the work force and the skills that it possesses.

According to this view point, education makes individuals more productive in an economic sense; economic contribution of an educated person is normally greater than that of an uneducated person. People acquire different skills and abilities in the course of their life time. These skills are not all acquired through the school system but it clearly heightens the working ability of those enrolled in the system.

The skills of the people enhance the amount and use of resources available to society, and are therefore important factors in development. The decisive factors of production in improving the welfare of people are not space, energy, and cropland; the decisive factor is the improvement in population quality. An alternative view is that human beings have the ability and intelligence to lessen their dependence on traditional agriculture, and on depleting energy. A fundamental proposition documented by research in 1970s was 'the decline in the economic importance of farmland and a rise in that of human capital - skill and knowledge'. (Theodore Schultz, Nobel Prize address, 1979, Stockholm). This conceptualization of population as a resource has been of growing significance in development

studies in 1970s and notably in the growing prominence of the term, human resource development (HRD). This concept reached its greatest academic prominence in T.Schultz's Nobel Prize address of 1979, 'on the economics of being poor'.

Schultz along with other human capital theorists attempted to measure the impact of education on productivity by recasting education as an investment in human capital. They assumed that rational people will attempt to invest in education up to the point where returns to them are equal to costs of educating their children. At a more functional and policy making level the concept of HRD formed the focus of World Bank's reports on World Development since 1980.

Returns to education have been calculated for many countries using the 'rate of return' technique. It is used as a rationale for giving priority to selected levels of education; for example, as the rate of primary education is said to be higher than that of secondary or university education it is mainly prescribed for developing countries for educational investment purposes.

Investing in population quality was found necessary even in 1960s by the World Bank when its concern for development was confined to redistribution of wealth and the main target was rural poor; moreover, at that time investment in education and health was held to be both equitable and also developmentally justifiable, though the term 'human resource development' was not used. During the course of 1980s, explicit concern for equity faded in favour of efficiency in the provision of education; there was a clear shift in investment priorities towards human resource development away from buildings and machinery toward people directly. At the micro level it was supported by the findings of high returns to educated individuals as measured

by the rate of return analysis of their current and lifetime earnings; it was also confirmed by measures of the overall effect of educational investments in the national accounts. Some of these findings are summarized below:

- returns to primary education are higher than those to other levels of education; 27% for developing countries;
- most rates of return are above 10 percent;
- returns to education were higher in poor countries where greater shortages of qualified and trained workers were experienced;
- farmers with an educational attainment of four years increased their productivity by 8.7% ;
- higher education is over subsidized;
- investment in general curricula is as good investment in vocational curricula;
- the rates of return to individuals are greater than those to society, and the differences are greater for the higher education level than for primary education.

Criticism of economic approach

In spite of continuous optimism shown mainly by economists on the positive contribution of education to human resource development and economic growth, the conviction has shifted to guarded hope and even despair in recent times. A simple cause and effect relationship between education and development is begun to be seen as a complex one and contingent upon multifarious factors.

There is a general reluctance on the part of social scientists, mainly amongst professional educationist to consider 'people' as a resource like any other factors of production or in terms normally used to measure physical

capital. They see education as a process in which goals are defined with regard to the potential and active interests of the learner and to his social and natural environment; learners are seen as active organisms who interact with others and grow up in a particular environment where they should thrive. The aim of education is to provide for growth and to bring out the potential in the child in interaction with the environment.

As pointed by Jon Laugo in his critique of World Bank strategies for education, ' the manufacturing analogue of education as a 'production function' quite alien to this analogue of growth from seed to a flourishing plant ...' (Int. Jour.Edu. Devel. vol 16 No.3, 1996). Children are better served with higher order educational goals which are more enduring and more widely applicable forms of learning than the curricula content meant for improving the human resource. Educationists are generally inclined towards high order goals such as 'critical thinking, creativity, cooperating with others, and the cliche of 'learning to learn'. For them the school subjects may matter less than improving the capacity of students to continue learning and their motivation to do so. They reject the instrumentalist view of education which sees education as an input to goals of economic productivity and as a process to inculcate attitudes conducive to productivity; for them this is to make travesty of the aims of education (Jon Laugo, op.cit). They generally oppose the intervention of economists and management experts upon their professional area of activity.

Apart from the educationist there is a section of economists who claim that the relationship between education and economic development is not straight forward; they argued that the expansion of educational facilities would not necessarily lead to economic growth, but rather to an economic crisis brought about by the costs of maintaining

larger but inappropriate educational structures (P.H.Coombs. The World Educational Crisis, 1968). It was also suggested that it was misleading to assume that investment in education would necessarily lead to economic growth (H.N. Weiler, 'Education and Development' in Comb. Ed. 14(3), 1978). Another argument suggested that the link between education and economic growth should include institutional and sociological factors in addition to economic factors.

View of Neo-Marxists

It was the neo-marxist thinkers who took an uncompromising view of opposing the idea that education contributes positively towards human resource development and economic growth. They focused on ways that education leads to the reproduction of social inequalities, and the detrimental effects that these processes have on economic growth. They went on to compare the institutional aspects of schools with those of a capitalist factory ; 'capitalists factories are hierarchically organized, and so are capitalist schools; factories require obedience to a central authority, and so do schools, competition rather than cooperation. self interest rather than comradeship, governs the workers as it govern the relationship among school students; moreover, the social relations of schools reproduce the social division of labour under capitalism'. In short, according to this view there is nearly perfect correspondence between the educational system and the capitalist economic system. and the school system has played an important role in preserving the capitalist order.

One of the main policy formulations in the 1970s to utilize the educational process for developing human resources to meet the needs of the economy was to vocationalize

secondary education. Another rationale was that this would increase the employability of school learners. But very soon it was found that economic returns to vocational education were lower (12%) than those of academic streams (16%) and at school level specialized vocational education was dismissed as unsuccessful. Research findings also indicated that few workers ever make specific use of the cognitive knowledge acquired in schools. The most widely endorsed argument against vocational schools is that they have high unit costs.

In a survey of 21 studies, a World Bank report concluded that vocational education is not only more expensive than general education, but may not be the most effective way of imparting desired technological skills. In developing countries like Sri Lanka and India the coexistence of vocational and academic curricula was frequently opposed in view of the fact that they were related to two different occupational sectors and therefore tend to institutionalize and maintain inequality in a society.

In many developing countries the provision of vocational education has generally exacerbated the already existing problem of educated unemployment due to over supply of school leavers from vocational course. A comparative study of unemployment and schooling in Tanzania, Egypt, Philippines and Indonesia concluded that expansion of vocational education in each case exacerbated the problem of unemployment. Besides, the vocational school leavers tend to have lower earnings because of occupational inflexibility - they being trained for specific occupations. Researchers have found that vocational education had declined on a global scale, a trend associated with increasing emphasis on egalitarian principles.

Human resource development theorists were mostly dependent on the rate of return analysis to decide on

policies pertaining to selection of educational priorities. They were having much faith in this analysis and made frequent use of it in their arguments. The rate of return analysis is used to gather information on future earnings associated with different levels of education. Data from the past are used but labour market and supply of educated persons can frequently change so as to make calculations of past income poor predictors of future ones.

The analysis is used to give precedence to primary education as the rate of return for this level was calculated to be higher than for secondary or higher education. On the contrary, the calculation is based on data for age groups that received their education several years ago, when primary education was much less scarce than it is today. As a major criterion for deciding which investment alternatives are most preferable to the development of a country, this approach has many limitations. It is also denounced because governments which are great stockholders in the World Bank (which relies much on this technique) do not much rely upon this particular type of analysis when they make their own policy decisions on education.

Educational reforms

Since 1940, Sri Lanka has embarked on a series of educational reforms mostly giving weightage to the policy of expanding the educational opportunities to reach the weaker sections in society and her achievements in this respect were remarkable. Free education scheme, establishment of Central Schools, takeover of assisted schools, introduction of mother tongue as medium of instruction up to university level, and free issue of school books and uniforms were some of the measures aimed at

helping the weaker sections of society. With the implementation of these measures along with the popular demand for education, school enrolment rates reached 83%, highest in the South Asian region. When it was found that the expansion of school education with its academic content has led to a situation where the problem of educated unemployment became rampant and caused social unrest, measures were introduced to include components partially to vocationalize the secondary level curriculum. The policy makers in Sri Lanka were cautious to introduce any specialized vocational courses / streams running parallel to the existing academic streams.

They were aware of the futility of organizing separate vocational courses at secondary level as they would have damaged the egalitarian image of the education system built up over decades. Compromise was reached in 1972 by introducing a common curriculum for secondary level with pre-vocational studies made compulsory for all. Even here the emphasis was on learning some basic skills necessary for any vocation and orientation towards the world of work. The policy planners thoughtfully avoided any training for specific vocations at school level as it later proved to be a failure in several countries as mentioned earlier (Egypt, Indonesia and Philippines).

Whenever the vocational component was introduced special attention was paid to remove any misgivings expressed by the opponents who saw the reform as leading towards training in manual skills.

The 1997 educational reforms formulated by the National Education Commission (NEC) are in keeping with the current criticism of school level vocational courses emanating from the experiences of developing countries where the results of these courses were negative. The reforms are also devoid of any direct reference to human

resource development, manpower planning or importance of vocational courses. The title of the document put forward by the NEC itself indicates the basic thinking of the Commission. It is 'reforms in General Education' which signifies the importance given by the Commission to common curriculum at all levels of school education without diversifying it into academic and vocational streams. The common curriculum as envisaged by the Commission is not only justified in terms of the principles of equity and egalitarian ideology but also could avoid controversies that usually emerge as a result of diversification at secondary level.

Educational scene in Sri Lanka became most undesirable because quarrel and discontent arose out of educational reforms proposed by the Special Committee (1943), Jayâsuriya Commission (1961) and Iriyagolla reforms (1966) which attempted to introduce vocational streams at secondary level. Severe criticism and public discontent which prevailed at that time were such that the proposals were withdrawn or never implemented. The consensus which thus emerged was in favour of a common curriculum for secondary level in 1972 reforms which were again amplified in the present reforms of the NEC.

The new reform proposals appear to be aware of all the shortcomings and criticisms levelled against the economist's viewpoint of education. There is hardly any reference to the objective of human resource development which sees mainly education as an investment in the future productivity of labour and to measuring the returns to such investments by lifetime income gains, discounted to their present value. The emphasis is on producing a trainable person through general education 'rather than those with high degrees in technology'. New primary level curriculum is geared to provide 'ample opportunities for children to do things and learn by practical experience'. Enhancing the

ability to do logical thinking, face challenging situations, respond quickly and accept both defeat and victory are some of the orientations enunciated by the new reforms.

At the Junior Secondary stage, practical skills will be identified with food, clothing, shelter, health, organisation, information and communication and not with any specific vocation or manual work. At G.C.E. (O.L), the new reforms set fourth to restructure the existing technical subjects to meet the demands of 'contemporary environment in technology and the world of work'. Definitely the Commission has disdained any ideas and jargons pertaining to manpower needs of the economy or manpower planning.

The overall situation is that as far as the new reforms are concerned, the viewpoints and ethos of pedagogues appear to have prevailed over that of the economists despite complaints that the Commission consisted of non-professionals who were scholars in the fields unrelated to education. The concerns of the educationist in regard to the principles of 'education for all' have received the attention of the Commission and it has made a concerted effort to fulfil them while attempting to increase the quality of public education. Since 1980, in Sri Lanka the national vision has been shifting from the construction of a socially just and equitable society to a vision of an economically competitive society, in which economic imperatives drive the education of the young. Once admirable goals of equality of opportunity began disappearing only to be replaced by short term instrumentalist policies. The fundamentals of this new thinking were such that economic needs, training of skills and relevance of curriculum came to dominate the educational scene from late 1980s. Some of the results of these policy formulations were as follows :

- still there are pockets of illiteracy in socially disadvantaged groups in Sri Lanka

- Approximately 14% of the children in the compulsory span of schooling (5-14 years) are out of schools.

Tackling the problems of illiteracy and early school drop-outs is of crucial importance in this era in which 'education for all' is a cherished ideal. NEC has proposed that regulations for compulsory education will be framed to induce the parents to send their children of compulsory school going age to schools. It is the view of the commission to provide opportunities for adults to acquire functional literacy through non-formal education programmes organized by the Ministry of Education.

These measures indicate the thinking of the policy makers who have given thought to the education of illiterate minorities who live in the slums and plantation sector and neglected by the policy makers of 1980s. The renewed interest in the education of the weaker sections of the society is reflected in most of the new reforms whether it is introducing compulsory education regulations or common curriculum at secondary level.

The Commission has a vision compatible with the educational objectives of the pedagogues who generally reject the principles enunciated by the human resource development theorists and see education as a human right; the overall vision appears to be the rejection of the idea of 'economic man' and acceptance of the principle of providing general education in the most effective way to all including the weaker sections without channelling them into less prestigious streams or courses at school level.

4. Structural Adjustment and Education in the Third World

Many of the indebted countries of Third World have been paying out between 20 to 50 per cent of their export earnings in debt service to the highly developed countries just to avoid default. Brazil has paid up to 62% of her export earnings in this respect.

Once the debtor nation is not in a position to keep up paying their installments, it is the aid cum loan giving nations and institutions which inevitably become stronger in imposing conditions. The less the debtor countries ability to repay her loans, the worse her credit rating becomes, making it more difficult to borrow in the future. The final result of the default is that certain 'Stabilization' or 'Structural Adjustment' measures are taken and if these are not accepted by countries in debt, other loans from international agencies and developed countries are unlikely to be granted.

The IMF/World Bank solutions to debt problems of developing countries are referred to in these terms which include mainly cuts in the public expenditure, removal of state subsidies and sanctions on wages and public sector employment.

Structural adjustment measures also require the public sector to become more efficient and provide incentives to the private sector to take over some of the functions of the public sector. In addition, there are often pressures to open the country to foreign investment and remove all forms of protection to local industries.

Capital flight

Default in repayment of loans by indebted countries has even caused large-scale capital flight as it has signified deep economic crisis experienced by them. In Latin America capital flight - companies and individuals moving their money out - from seven countries including Argentina, Brazil and Mexico was estimated to amount 65$ billion (U.S.) between 1980 and 1984.

Policy decisions regarding payment of loan by Third World countries are made largely in the interests of the Northern industrialized countries and only a few developing countries are given some concessions due to their strategic and political importance. The main aim of the economic adjustment is to ensure the repaying capacity of the developing countries. As a result of the implementation of structural adjustment policies, earning patterns of in many Third World countries have changed in 1980s under austerity programs and dramatic fall in the salaries of the public service. The debt crisis and the consequent adjustment policies have affected not only the governments and their economic institutions, but have also quite seriously eroded the living standards of the poor masses of the Third World countries.

Policy suggestions made by the IMF and the World Bank have exacerbated the poverty and living conditions of substantial sections of these countries and are threatening the social and educational services provided to them by the state.

Education in the Third World countries is mostly provided by the state as a direct charge on government expenditure. Schools are generally the most widespread of the services provided by their government which affirm the need for an

educated population as necessary for the modern state, one of the preconditions for development.

It is thought, development will be more rapid and better appreciated with a more educated population. In order to implement this principle governments have invested large proportions of an often limited government budget in education. Demand for education among the Third World population is high and the popular thirst for education seems to assume enhanced life chances in the future to the children themselves and to their parents and communities. Throughout the Third World an individual's level of education is a major criterion for his or her life style, career opportunities and life chances generally.

Those who are wealthy and secure and having well-paid salaries and a high quality of life, by most objective measures, tend to be those with some education. The private demand for education arising out of the aspirations for better quality of life of the masses have to be met by the state, allocating a large proportion of its budget. This is one area in which the performance of the state in regard to the enhancement of quality of life could be positive.

It is much easier to provide education for a larger number of children than creating employment opportunities; education constitutes one single social institution that could be easily manipulated by the government for development purposes. It offers a prime mechanism for social mobility through its links with employment and job status.

Government Intervention

As a result of government intervention in education, the growth has been spectacular. Enrolment in the primary cycle

in the Third World expanded more than three fold during 1950-70, nearly seven-fold in secondary cycle and six-fold in higher education.

The expansion has benefited the people in enhancing their life chances, social mobility and quality of life. Nevertheless, government programs of democratising education has not reached several groups of people in absolute terms; Women in South Asia except Sri Lanka, scheduled caste people in India, people living in the remote rural areas, and ethnic minorities (such as Sri Lankan plantation community, 55 minority groups in China, some ethnic groups in Philippines) are some of the groups identified by Third World policy makers.

It is also estimated that there are well over 10 million children of primary school age who were not in school in 1991 (UNDP estimate) and almost all of them are in Third World countries. South Asian countries except for India and Sri Lanka (where enrolment rate is more than 90%) are still experiencing a lower rates in primary school enrolment (Pakistan 40%, Bangladesh 59%, Bhutan 26%).

The problem of educationally marginalised groups could be tackled only by further government intervention and enhanced allocation of funds along with positive discrimination policies. The introduction of strategies such as open schooling, out of school channels and non - formal media for these non-school-going children involves additional resources from government budget and any withdrawal of state subsidy to education could have a far reaching and adverse impact on the education of these children.

In the Third World this is now a major issue, as the majority of countries, deep in debt and economic crisis, are being encouraged into structural adjustment programs that

involve extensive privatisation and 'cost recovery' programs making the public to share a major proportion of the costs of education, by imposing or and raising fees or reducing subsidies rather than outright privatisation. 'Structural Adjustment' has had the following definable effects on already difficult economic conditions:

Reduced spending on public services causes a decline in the quality or quantity of services. Health, education, housing, transport and water supplies suffer. Often state subsidies for basic consumer goods on which the poor people depend are cut. Cutbacks in public sector employment often affect the urban middle classes as well as poorer groups. In countries where the public sector is the largest employer, the adverse impact is worse for those with secondary education. The impact of debt and adjustment on poorer sections of the people was increasingly discussed and the main focus was on hunger and disease whereas education seemed a less priority. However, now it is felt that from a longer-term perspective, ignoring educational development can have serious consequences for future economic and social development.

Effects on education can be assessed in terms of effect on the availability of education, its quality and the people's ability to take advantage of education.

Most urban middle class families are unlikely to give up educating their children even if there is substantial increase in the cost. On the other hand, for the marginalized groups of people schooling for all their children cannot be a priority. Thus reduction in subsidy for education system by influencing its quality and the conditions of poorer sections in their search for equal opportunities in education.

Some governments have chosen out of political considerations to maintain the proportion of expenditure for education by cutting other social sectors such as health. Most Latin American countries introduced cuts in funds for education while maintaining that of health.

In Philippines and Jamaica education sector experienced 30% to 40% cut in the fund allocation in 1980s. The cuts were severe that there had been decline in primary school enrolment. In Latin America and Sub-Saharan Africa, primary education suffered a severe squeeze. Government gave up responsibility in providing materials and equipment and maintenance of school property; real salaries of primary level teachers in most of the Sub-Saharan Africa declined in 1980-85 period; teachers were paid irregularly or have to wait for several months; their working conditions too deteriorated ; sometimes they have to work double shifts or look for jobs outside teaching ; when the teacher is the sole resource of learning because there are no textbooks and other instructional aids: the teaching load of the teacher increases; sometimes one teacher is expected to teach several grades simultaneously.

The net result is that, in these countries, teaching has become an undesirable profession. These adverse conditions cannot provide a proper learning condition and promote the morale of teachers and students.

Developing countries of Africa are getting used to the idea of community participation and support to the publicly funded state education. Only teachers' salaries remain for the most part in government hands. There is also an increasing burden on parents to pay school fees or payments to the school funds.

In India, it is estimated that parents already pay a substantial proportion of the cost of education. For the poorer

sections, such charges make a more significant dent in the family income. They will be able to keep their children to school by sacrificing other vital family expenses. As a result of the impact of the crisis pertaining to debt and problems of obtaining loans from outsides, the orientation of national education systems of Third World countries are shifting away from providing equality of opportunities in education to economic imperatives such as promoting efficiency in education and search for more relevant curriculum to suit the needs of the economy. In recent times the global agenda for education has been largely set by the World Bank and IMF.

This meant in ideological shift to an approach dominated by economics rather than by politics, sociology and education where emphasis is on child as and individual and his or her social, intellectual and emotional development irrespective of social class considerations.

The approach of the World Bank to structural adjustment in education is to make system more efficient and provide better value for scarce resources. The strategies of the World Bank to shift public to private expenditure are justified as being not only efficient, in terms of improving the quality of education, but also equitable, in that public systems mostly provide a subsidy to the rich, who are disproportionately more likely to be in schools at all levels.

Sri Lanka based leading educational policy researchers have expressed serious concern over the impact of World Bank policies on the educational provision of disadvantaged sections of Sri Lankan society. Prof. Swarna Jayaweera is of opinion that ..... the structural adjustment policies have resulted in deterioration of the quality of education and spiralling cost that have increased the constraints of low-income families in utilising educational opportunities in the 1980s and 1990s ..... income disparities have

widened ... women and children in low income families bearing a disproportionate share of the burden of structural adjustment (in *Women, Education, and Development in Asia*, Garland publishing New York, 1996). Prof. C.Gunawardhana has observed that in Sri Lanka 'Once admirable goals of equality and outcomes are disappearing only to be replaced by short term instrumentalist economic policies'.

Third World countries are in dilemma in educational policy making and in rectifying the problems of marginalised groups whose future well-being will be decided only by the liberal provision of state education influenced by policies of positive discrimination. The task of renewing education as a vehicle for promoting upward social mobility depends on fundamental and radical changes in the economic and political conditions which led to the crisis situation in education.

While Third World countries can exercise their sovereignty to improve educational opportunities for their poorer sections of society, the people and organisations of the Northern developed world should play a major role in lobbying their own government, to give Third World development higher priority.

5. Local Control of Education

As present day discussions at seminars and other public fora are centering around the pros and cons of devolution of powers to the regions, it is pertinent to look into some aspects of greater regional and school autonomy in respect of educational management.

In both Great Britain and the United States there is a concerted effort to move decision making down to the school level, to decentralize practical decision making. In Australia the trend has been a process of devolution of decision making from central authorities to more self-managing schools. The movement towards self-managing schools is world wide. It is almost a universal movement towards local autonomy of schools which is dubbed as the key 'policy megatrend of our time'.

States and local school districts in the USA and Local Education Authorities in England are losing authority downward and schools are becoming more and more autonomous. The thrust towards substantial decentralization in recent times has been most apparent in Canada, New Zealand, Spain and Sweden.

This process is aimed at achieving schools which are more responsive to local circumstances and needs, and more flexible in dealing with rapidly changing environments. The ultimate objective of this process is the enhancement of the quality of learning as well as teaching. It is claimed that grater school autonomy could lead to more effective management, the alignment of responsibility and a greater concern for people.

Most frequently advanced rationale for decentralization - devolution of authority to a lower organisational level, such

as individual schools - is the improvement of schools. Effectiveness aims appear prominent in the movement towards decentralization in England and North America and in the national devolution to municipalities in Sweden. In simple terms the intention is to make schools more productive. None of the decentralization plans around the world was initiated solely to reduce educational costs. It is true that some critics see devolution as a tool of economic rationalisation, associated with reducing expenditure on education. According to them, the prime focus of this reform movement is cheaper rather than better schools.

On the positive side empowering schools is said to be associated with greater participation in key decisions by teachers, parents, local community and students. These are expected to lead to more collaborative and flexible school culture with a greater emphasis on student needs, quality teaching and better learning.

For those in the teaching profession it is claimed that greater autonomy at school level will be associated with an increased sense of understanding, commitment, empowerment, initiative, job satisfaction, motivation and self-esteem. In turn these could result in better quality teachers being attracted to schools.

Another reason for the adoption of greater school autonomy is the belief that local participation is a local form of governance in democracy. Reactions against bureaucratic rules and the failures of central planning have spurred demands for local power and sovereignty.

Hierarchy and status can be disabilities, particularly when team work and shared skills are needed; collegiality, and not hierarchy is favoured. Education systems and individual schools in the above mentioned countries are now adopting the fluid, entrepreneurial and organisational pat

terns which characterise the new thinking in the arena of power sharing with local areas and schools. The move to decentralization may imply a shift in priorities away from what is legislated by central governments and towards the quality of education as defined by local people and school managements. At a time when the lives of individuals are influenced strongly by large-scale modern organisations, decentralized schools become one sphere in which some levels of personal control can be asserted by families and communities which can provide a necessary continuity in the lives of students; the return of authority to individuals and small groups in society may be a profound reason for adopting a decentralized educational system for the welfare of future generations.

It is also argued that because of superior information on students and teachers, local authority is apt to make better allocatory decisions and monitor the production outcomes closely in case the authority is devolved to a sub-national unit. Enfranchisement of localities, particularly through devolution, is seen to enhance equity by redistributing authority from centre to region or local communities. It is also argued that such redistribution promotes efficiency. Since communities will be more willing to support locally governed schools, and local participation and financial support will result in better schools.

While in developing countries devolution in respect of school governance has become increasingly attractive, in the developed world the commitment is to arrange school professionals to make important decisions concerning the educational welfare of their students. Although several claims are made in favour of devolution and school based management it would be useful to look at certain limitations as well.

Little research has been addressed to the impact of school based management on children's academic achievement.

Moreover, there is little evidence that school based management alters and influences relationships, renews school organisations, or develops the qualities of effective schools.

According to researchers, devolution by itself does not and cannot guarantee increased effectiveness or efficiency and more participation by teachers or community.

This transfer of power provides the opportunity for school decision making but does not guarantee its quality and actions benefitting from it.

Continuation of school based management can be threatened because the concepts and beliefs behind devolution may be unclear to many participants.

Proponents of greater centralization claim that because of its superior resources, the central government is better able to provide for the production of the type of social benefits desired from schooling.

They also argue that centralization ensures that children's education is not a function of the ability of their community to raise funds for schooling.

While there is a concerted effort to decentralize practical decision making, both in Britain and United States there has been a movement towards the establishment of national goals and objectives, national standards of what children should be able to know and of acceptable teaching practice. In short, centralization and decentralization are the two competing themes that have been present in shaping public schooling in countries like USA and U.K.

6. Bureaucracy in Education

One of the most important aspects of the formal structure of an organisation is its system of administration and in a modern society the typical administrative system is bureaucracy which was described by Max Weber as an 'ideal form'.

Bureaucracy is characterized by a high degree of specilization; it was predictable, its purpose and operations were rational, its routine were systematic and rarely changed; it had a hierarchical system of authority; explicit rules which define the responsibility of each member of the organisation and the coordination of different tasks; the exclusion of personal considerations from official business; recruitment of experts; the existence of a carrier.

It was an organisation structure built on the analogy of a machine. Clearly, bureaucratic characteristics are present to some degree in education, just as they are in industry and commerce. Schools increasingly employ specialized personnel recruited on the basis of qualifications.

They have, to varying degrees, a hierarchical system of authority involving specific line of command from the director of education downwards. There is also considerable standardization with respect to textbooks and examinations.

Increasingly the school organisation draws upon the factory model of organisation. Teachers unions encourage industrial action and workers versus management mentality. Terms like, 'learning outcomes', 'output', 'process' are now used in the educational practices are directly borrowed from a range of industrial metaphors. There are parallels in educational arena for business choice, competition, privatisation, diversification and decentralization.

In this way the public conception of education has been redefined into an economic framework, which uses a new vocabulary about schooling. For instance, efficiency, effectiveness, equity and (market) excellence have become four Es of education.

All these point to the fact that the school organisation has drawn upon the model of bureaucratic organisation conceptualized from factories and other commercial establishments.

In fact there are some conditions favourable to the development of bureaucracy in education. These include population expansion, urbanization, increasing mobility, the knowledge explosion and the growing economic importance of education. In recent times scholars have pointed to the significance of the pressures for educational equality which often demands the development of uniform educational curricula and programmes. Moreover, the professionalization of teaching has also done much to encourage bureaucratic tendencies by its promotion policies with respect to qualified entrants, career opportunities and the pressure of control by the expert rather than the layman.

In spite of continuous application of bureaucratic model to the organisation of educational process, the model has been criticized for many of its dysfunctional aspects. Bureaucracy carries with its consequences that run counter to the conceptions of the teachers role held by the teachers and educators. For example, the standardization inherent in a bureaucratic system comes into conflict with the ideal of individual attention to students which is basic to recent thinking in the field of education.

The British alternative to the bureaucratic model of school organisation was allowing parents and governing boards of

individual schools the choice to 'opt out' of the existing bureaucratic system.

Schools that chose to sever ties with the bureaucratic system in terms of the provisions of the 1988 Education Reform Act has given strong leadership and was found likely to facilitate a working relationship with the local community, recruit better teachers, attend to their particular needs and gain control over student disciplinary problems. Giving more powers to parents and the professionals in school operation seem to represent a modern approach in containing bureaucratic influence.

In Norway, reforms in 1985 and 1987 granted teachers greater authority over curriculum design, instructional practices, and assessment standards. Consequently, Norwegian teachers have substantial influence over school life.

In Spain the centralized public education was replaced by 17 autonomous regions, within which local authorities exercise substantial control over educational matters. Since 1985 each school has been governed by a local school board in which one third of the members are elected parents, another third is the teaching staff.

In Sweden, to achieve the goal of citizenship education, pupils participate in decision making and the negotiation of the curriculum. In public schools the need for teachers and pupils to act in working groups is emphasized. The notion of school level management seems to be consistent with the political culture of democratic participation in Sweden.

Recent research suggests that the scope of educational reforms tends to vary from country to country and since the early 1980s the trend in the western countries indicates a gradual shift away from strong bureaucratic control.

Experts on the subject of organisations are of opinion that some of the assumptions which we took granted in the bureaucratic organisation are no longer believed.

They no longer ought to be operative in education because specialisation is no longer seen as strength.

There is increasing emphasis on generalist (rather than specialist) skills; hierarchy and status can be disabilities; collegiality, not hierarchy, now is favoured; The company does not belong only to those who invested the money; Every worker has a stake in the company; the company does not own the staff; they become owners or a part of it; instead of paying salaries for the time given by the employee to the company he is paid for rendering a service; contracts are replacing salaries.

Futuristic scholars have already indicated the emergence of several post-industrial organisation formats such as 'network organisations', ' membership organisations and 'shamrock organisations' which have replaced the conventional bureaucratic organisations.

7. Integration of Teaching and Research

In modern societies universities are expected to perform the functions of advancement and transmission of knowledge. Research and teaching activities help to promote both these functions related to the creation and dissemination of knowledge. In developing countries, research done in institutions of higher learning is expected to play a pivotal role in providing the basis for development programmes.

Academic community of the university system has to engage in research to enhance its professional status and promotional prospects. Research activity trains the academic staff in methodologies pertaining to such discipline and paves the way to assimilate recently constructed knowledge in the field of study undertaken. For instance, a researcher in the field of educational planning will have to study all the available relevant literature pertaining to that discipline before undertaking research in a specific factor of planning process or its implementation.

This requirement helps the researcher in his university teaching of the subject concerned. He assimilates new knowledge which helps in his teaching. Research activity stimulates his quest for acquisition of newly developed knowledge.

Although research has become one of the major functions of the modern university system, during the 17th century it was not considered as a formal duty of the academic community of the Western Europe, nor did they consider the universities as institutions of research.

But the university teachers were learned men, and a few of them engaged in scholarly research which was formerly not a requirement for promotions in the university carrier. Moreover, teaching at a university was not considered as the most suitable occupation for a researcher, nor was it required of all university teachers that they be researchers.

Developments in Germany

The 18th century Western Europe could not boast about any institutions of organized research and a university curriculum with natural science disciplines. For instance, the founders of a new university system in Germany in the 19th century emphasized philosophy, humanities and mathematics but not experimental sciences which they considered as a kind of technology. Early university research was few in number and mainly confined to law, philosophy, theology, classical languages and science.

One of the most remarkable development in the growth of the modern university system was the decision of the new type German university to make research as the principal qualification for an academic appointment.

This led to a steep rise in the status of university professors. Until this decision the status of the professors in the university faculties was about the same as the status of teachers in the upper grades of better high schools today.

It was true that the professors of law and medicine enjoyed higher status in view of their prestige of those professions.

Another related development that took place in the new university system which emerged in Germany in the beginning of the 19th century was the unity of teaching and research in a single role of the university professor and in a

single institution - the university. This unity is achieved by the teacher - researcher whose lectures were based on original thought and firsthand inquiry. This idea conceived of all teaching as based on research which was considered identical with original and systematic thought.

The intention was that all university students should be taught by original and systematic thinking. With the introduction of these new concepts of higher learning German universities became ideal places for training in advanced research. They attracted scholars in other countries of Western Europe and U.S.A. who found a more conducive environment for research in Germany.

From the middle of the 19th century the German idea of unity of teaching and research has been a most important theme in university reforms, and in the establishment of new systems of higher education the world over. Researchers from the Western world went to Germany in order to obtain advanced training in research. These foreign scholars advocated the professionalization of research following the German pattern and made attempts to transplant it in their own countries such as Britain and France.

But these countries were not prepared to depart from their traditional pattern of higher learning that such research studies became only an insignificant part of university academic life. The traditional role of universities in these countries was confined to teaching.

However, in the U.S.A. the most important development took place as a result of the influence of the new German concept of university education was that knowledge was essential not only to perform his research activity but also to enhance his quality of teaching.

The tradition of emphasising research and teaching as the main functions of university education developed overtime with the growth of university system in the Western Europe which became a model for the developing countries in the 19th and 20th centuries. It is generally believed that an active research interest is essential if a teacher is to be a good university teacher. If the teacher stops doing research, then he begins to repeat himself and eventually loses touch with the world around him and the recent trends in his field of study.

The connection between research and teaching roles are mutually enriching and in practice the two of them tend to merge; the university environment is conducive to achieve excellence in both areas. In fact these are some of the salient findings of recent researches done in the western universities.

According to these surveys an active research interest is essential of a person is to be a good university teacher but the reciprocal belief that an active teaching interest is essential to be a good researcher may not be widely held. Moreover, it was rarely claimed that excellent teaching can improve the quality or research publications.

The overall argument is that research is necessary if teachers are to keep abreast of new developments in their field and to stimulate their thinking. One recommendation is to improve the quality of teaching at the university level is to reward publication or research done by teachers.

It is also possible for teachers to become familiar with the research done by others without actually getting involved in their search. But this is a superficial methodof acquiring new knowledge because there is no compulsion for acquisition of knowledge in the absence of a research

question to solve. In short, discovering knowledge is more specific to research. Integration of teaching and research is also justified by the premise that the abilities underlying both successful teaching and research are similar.

The values associated with both good teaching and good research are claimed to be high commitment, creativity, investigativeness, and critical analysis. According to Westergard 'We read, scan, dig into sources, calculate, ponder, disentangle other's work... deconstruct, reconstruct... This is a case for teaching and research'.

The opposite viewpoint is that those who are productive in research tend to spend more time in research and less time in teaching, and similarly those productive in teaching tend to spend more time in teaching. This leads to negative relationship between teaching and research. Moreover, as both teaching and high research productivity are labour intensive it is almost impossible for individual teachers to undertake both functions effectively.

American surveys have found out that teaching and research, far from being complementary activities, appear to be either completely unrelated or to be in conflict with each other and that most productive researchers have the least favourable attitudes to teaching, while the least productive are the most committed to teaching.

The opponents of the principle of integration of research and teaching advance the following arguments in support of their view point.

- Research is seldom driven by curricular considerations. It is normally directed by interest in academic careers and dissemination of knowledge among wider section of the society.

- Research is related more to the discovery of new knowledge whereas teaching involves imparting information to enhance student learning.

- Researchers are valued for what they discover ; researchers seek knowledge, teachers encourage learning.

- In research, learning by other is a by-product, whereas in teaching learning by others is intended and is a direct consequence of teaching.

In so many ways it could be substantiated that both the functions of teaching and research are unrelated and differ in objectives and ultimate results. But at the university level in the discussions on enhancing the quality of teaching, research activity by the teachers is given top priority as it is firmly believed that research instills certain attributes indispensable for teaching.

Apart from traditional viewpoints about the advantages of integration of teaching and research, recent evidence suggests that researchers are more organized and therefore accomplish more in their teaching and their research roles within a fixed amount of time; it has also been found that researchers are more available to students, give more feed-back and are faster in returning work; those performing several functions such as research, teaching and administrative tended to perform at higher levels than those with just a single function.

8. Concept of Open Learning

Openness is popularly construed as the removal of barriers which stand between the learner and education. The essential idea is that of opening up new opportunities for people to learn; opening up opportunities by overcoming barriers that result from geographical isolation, personal and work commitments or conventional course structures which have often prevented people from gaining access to the training they need. Open learning is also an attempt to breakdown the traditional barriers to education such as pre-qualification, age, availability, scheduling, learning styles and cost. This term is used also to describe courses flexibly designed to meet individual requirements; it also suggests a learner - centered philosophy as to what, where, when and how they learn; it stresses in varying degrees the centrality of learner's choice i.e. learner directed training, self study and independent learning. Open learning is also characterized by the removal of exclusion and privileges, by the accredition of students' previous experiences, by the flexibility of the management of time variable and by substantial changes in the traditional relationship between teachers and students. The concept of open learning has grown to encompass almost all educational activities other than the most traditional of work in the classroom.

All open learning systems have one principle in common: they are to a greater or lesser extent efforts to expand the freedoms of learners; they provide freedoms in more significant dimensions - in admissions, selection of courses, individual adaptation of the curriculum and time, goal selection and evaluation. The context of open learning is not administrative but philosophical to describe institutions with 'open' administration policies (Sewart David, et al. 1988, p.26). Some of these principles of open learning have even influenced the formal schooling although open

education is not a variant form of traditional education but opposite of it. For instance, after the Plowden Report the principles of o translated into school practice in England resulting in a marked shift from the more traditional view of children as learners. The characteristics of open learning such as freedom, activity and discovery, concern with process as opposed to **content** exerted an influence on the organization of primary school practice in England. The emphasis on 'learning to learn' or discovery learning and on 'openness' in terms of attitudes and sharing in terms of relationships between teacher and pupils, and pupil, and teachers and teacher became an increasing feature of the primary world. (Cohen and Manion, 1990, p.110).

The idea of openness as a continuum has been developed by some researchers who suggest that each aspect of learner choice is found somewhere along a continuum from opened to closed (Lewis and Spencer 1986, quoted in Robinson Kate, 189 p.22). The relevant aspects of learner choice are defined as (a) whether or not to learn (b) what to learn (c) how to learn (methods) (d) where to learn (e) when to learn (f) what to do next? Subsequent definition of open learning are mostly some selection from this list. For example, Rumble has examined the criteria found in the literature and proposes a five-fold category i.e. (a) access related criteria (b) criteria related to place and pace of study (c) criteria related to means, support services, structure of the programme content and assessment. (Robinson Kate, 1989, 22-23).

Access related criteria are concerned with characteristics of the learner which would normally prevent them having joining a course. It includes lack of appropriate academic or vocational qualification, inappropriate age, lack of financial support and the inability to attend a class because of physical handicap or social circumstances, such as living in prison.

Open learning such as distance education modes showed that it could provide educational opportunities to large numbers of people who had been denied such opportunities for reasons given above and that it could be done in a cost effective manner. Open learning is recommended not because of the new technologies used or it is a cheap method, but because of the fact that it can provide access to learning to many people, as it can provide access to many more.

The developing countries have found in open learning a solution to the problem of how to take education to the large number of their population who are isolated geographically, physically and socially. For example, Indian policy makers have identified the following groups who are in need of adequate care :

- Educationally backward regions / people with long history of educational deprivation.
- Women, particularly in rural areas.
- Scheduled caste, tribes and other backward communities.
- Religious minority groups.
- Working children.
- Migrating population and
- Physically and mentally handicapped persons (Viramani Mridula, 1994, p.61).

In Australia, which is 4000 KMs from North to South and an equal distance from East to West and which has a population of less than 16 million people, there are groups of people in isolated rural areas who are dependant on distant education mode of open learning from their first years of learning or from their first years of school.(UNESCO 1985 p.3)

In 1990 UNESCO had identified several groups of disadvantaged people in the Asian region who were not

benefitted by the formal system of education. They include children of rural dwellers in remote and isolated areas, slum dwellers, poor or low income groups, nomadic tribes, and ethnic and religious minority groups, numbering around 54 million primary school age children who are not enrolled. It many countries of the region, this combined population of these groups constitutes a majority. In other countries they are in a minority (For example, in China 8% of the total population, absolute No. 31.4 million, in India a total of 156 million). These people could be reached only by means of open learning as they could not be accommodated by the formal system of education. If that minority is not reached, the goal of education for all not be achieved. (See UNESCO Bulletin, 1990-19911 pp. 167-191).

The system of formal learning has a set of rules, regulations, structure and traditions which make the system to function without responding to the educational aspirations of these segments of the population. For example, children are admitted to school at a certain age and once they drop out from the system they cannot rejoin; a greater degree of sustainability is necessary for these marginalized groups to have their children enrolled in the school system for a period of 12-13 years in order to accrue some benefits out of the school system. Moreover, the dysfunctionality of the full-time, bookish, examinations-ridden teacher dominated institution- bound system of formal education which is also considered as a closed system cannot respond to the new demand for education created by these marginalized groups. All these issues call for a parallel and alternative avenues of educational opportunities beyond the formal system of education.

Some authors have identified a sharp distinction between open learning and distance education; for them distance education is but one variant of open learning; while open

learning is characterized by the removal of restriction, exclusion and privileges, distance education is a modality which permits the delivery of a group of didactic media without the necessity of regular class participation (Robinson Kate, 1989). Open learning may be carried out at a distance and called distance learning. We can have either without the other. Distance education means simply forms of instructions that rely heavily on ways of communicating other than meeting face-to-face; it can place restrictions on admission; for example, distance education courses in teacher training could be only restricted to practicing teachers. Distance education forms of instruction can be called open learning only if they make education accessible to more people.

Indian Example

Neighbouring India is facing the problems of educating 19 - 24 million children (6-14 age group) who are out of school, and about 122 million adults (15-35 age group) who are illiterates. Moreover, India represents about 22 percent of the out of school children and about 30 per cent of the global total (National Open School, 1995, p.94). These figures alone indicate the colossal task ahead of Indian policy planners to achieve the objective of 'Education for All' ; they have resolved to make this objective a reality through the primary intervening strategy of distance education. Now in India there are the National Open Schools and six open schools in six populous states. The open learning system in India at the school level started much before the open learning took its roots in the university education.

The Indian open learning system provides a complete alternative channel from elementary level to postgraduate studies. There are institutes of correspondence courses,

distance education institutes and open schools and Universities; National Open School offers a flexible, pedagogically sound open access to education to those who cannot attend regular school for a variety of reasons. The special emphasis in National Open School is on enrollment and participation of women and girls, members of scheduled castes and tribes, physically and mentally handicapped children. (National Open School 1994, pp. 59-71). This school provides learning opportunities at the elementary, secondary and senior secondary levels. Many more countries such as Bangladesh, Indonesia, South Africa and Nigeria have set up open schools. Initiatives are known to be made in Egypt, China and Zambia.

Role of UNESCO

International concern for Universalization of education has also brought in significant thrust to open schooling. According to Unesco, conventional meaning of education delivery cannot solve the problem of illiteracy and the provision of basic education for all and the aim of open school was to utilize all available channels of information, communication, social action to reach neo-literates and marginalized groups; Unesco has taken a particular interest in open learning systems in India and globally it seeks to assist enabling all people to obtain access to all forms and levels of education within the context of lifelong education, particularly through distance and open learning modes. Unesco has helped the developing countries of Asia to bring together the separate initiatives made by them in respect of open learning, (National Open School 1995 p.V). Another example of international approach to open learning was revealed by a survey conducted for the Commonwealth; accordingly, many institutions would accept individual enrolment from other countries in the open learning and distant education course.

Sri Lankan Context

Sri Lanka having a literacy rate of 89.6 is rated along with countries like Australia, New Zealand, Philippines, Republic of Korea and Thailand of Asia and Pacific. The survival rate at the end of the primary school in Sri Lanka is 90.1 per cent. If the drop out rate is arrested and educational opportunities are made available to children in remote localities, slums and plantation areas the universalization of primary education in Sri Lanka can be attained before the year 2000. The number of out-of-school children is estimated to be in the region of 1,442000 and the number of illiterates (15+) is 774,000 (UNESCO, Bulletin, 1990-91, p.35). 14% of the poor in Sri Lanka were completely illiterate, while 64% obtained only primary education; Drop out rate at grade 5 in 1988 was 42 percent and the average repetition rate at primary level was 7.3 (1989). In 1994 out of the 463,000 who sat the G.C.E. (O/L) examination, only 16.7% were qualified to follow G.C.E. (A/L) classes and only 19.5% passed in 6 or more subjects with first language and mathematics.

According to some recent estimates nearly 15% of the children in age group 5-14 in Sri Lanka are out of school. At the Senior Secondary cycle, nearly one third of the children of that age group are also not in school. According to the School Census of 1990, 135,000 or 4.8% of the total enrolment have dropped out from years 2-9. 59,000 pupils or 3.25% of those enrolled are dropped out during the primary cycle (National Open School, 1995, p.113) One study of a given school cohort (G. Gunatilleke, 1989) shows that the total attrition rate within the cohort is as high as 90% following the cycle through all the way to completion of Advanced Levels; that is prior to completing primary level (19%), at Grade IX (6%), exiting formal studies after GCE (O/L) exam (25%). Available data indicates that school

avoidance rate in the plantation sector is alarmingly high, at 34.7% compared to rural areas (11.1%) and urban (7%) (Central Bank, 1990).

Table I

Sri Lanka - Educational Indicators

1.	Literacy Rate	89.6
2.	No. of Illiterates (15+)	774,000
3.	Primary Level enrolment (1990)	2,244,000
	Female	48%
4.	Primary Level Survival rate (1988)	95%
5.	Out-of-School children and youth	1,442,000
6.	Years input per graduate (Primary education) 1988	5.6
7.	Drop-out rate at grade 5 (1988)	4.1
8.	Repetition Rate (Primary - Average) 1989	7.3
9.	G.C.E. O/L 1994 Qualified for A/L Passed in six or more subjects with first language, and maths	19.5

Source : School Census Reports & Department of Examination.

Opportunities for university education are not in keeping with the rising demand and the enrolment ratio at this level is far from satisfactory. The total number of undergraduates admitted to all national universities for the academic year 1989/90 was 6463 which was 18% of the total number

eligible for admission according to the accepted criteria and approximately 33% of those who applied for admission in 1990/91. 25% of those who were eligible and 36% of those who applied for admission were admitted (sessional paper no. V, 1992 - p. 79). Figures for the latest rounds of admissions are given below :

Table II

University Admissions 1988-1990

Year	Eligible	No. Admitted	Percentage
1988	34491	6463	18.74
1989	37374	8970	24.00
1990	42454	8900	20.96

Source : UGC, 1992 Handbook.

The above analysis indicates that formal education is not equipped to accommodate and provide educational opportunities for the following categories of students and there is a need for providing alternative forms of schooling to such students to realize the objectives of 'education for all'.

i. out-of-school children, youth and drop-outs.
ii. illiterate people.
iii. those who were not admitted to the higher education institutions.
iv. school learners with general education who seek employment.

Any proposal for the establishment of open school in Sri Lanka should take the above categories into account. As pointed out by the Education Proposals for Reform (1981), the proposed open school by the National Institute of Education can organize courses for personal enrichment, skills development in vocations and facilitating re-entry into formal education system. It could function as a support centre for the large majority who leave school to enter the world of work during this transitional phase from schools (Ministry of Education 1981, p.20); it could help to build a linkage between general education and vocational education. It is proposed that in the Sri Lankan open school, subjects in the common secondary school curriculum considered essential for effective citizenship and individual development will be taught; emphasis will be given to the development of skills, attitudes and personal qualities necessary for a work ethic. (National Open School, 1995. p.114).

The changes that are taking place in the socio-economic sector with the introduction of new technologies and the society based on information and knowledge require people to acquire new skills throughout life.

Thus, a dense network of training opportunities will have to be developed by the proposed open school. Many working and non-working youth lack the basic skills required to live and work in the forthcoming information based new century. Open school could be more innovative and modernized and aim at the preparation of our your to face the needs and challenges of the new century. It can depart from the traditional curriculum and methodology adopted by the formal school and open new vistas in the field of general education by imparting the basic intellectual abilities needed for an individual to continue learning throughout life. Open schools can help to diversify and decentralize education and training opportunities and can become one of the main alternatives to traditional schooling which is slow in reorienting itself to meet the changing needs of Sri Lankan economy and society.

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9. Education For the 21st Century - Sri Lanka

Introduction

Up to now, educational reforms have been remedial - rectifying errors of the past. However, if Sri Lanka is to be educationally equipped for the 21st Century, the education system should be impregnated with a vision. It must be imaginative and focused on the future, responding to the rapid scientific and technological changes and discoveries that will be on the future agenda.

Moreover, the new education system that looks beyond 2000 A.D. must be geared to face the sharp socio-economic challenges and opportunities that will arise as well as the significant socio-political reforms and the major cultural renaissance and efflorescence that will take place in the 21st century.

Hence, in reformulating education in Sri Lanka it should be designed so as to cope up with the transformation that will follow in the next century. New policies, practices, and thinking, accompanied by technological and research based advances, have to be introduced in the honing of education for the 21st century.

If Sri Lanka neglects innovation but again depends on ad hoc changes of a therapeutic nature in regard to educational programmes, systems and practices, there will inevitably be a failure of education to contribute to, sustain, or enhance the future development effort. Educational innovations based on research and grounded on the technology of education such as developing a methodical reach towards

the teaching-learning process, and education technology, such as the use of information technology, will be inevitable as Sri Lanka moves into the 21st century.

No doubt, if Sri Lankan society continues unchanged, the present education system will have some relevance for the future also. But the appropriateness and validity of our present knowledge and education system can be questioned. The trend in Sri Lanka society is rapidly shifting towards change. Societal change compels us to choose new options for the future. The existing state of information and knowledge will not survive in the rapidly changing knowledge world of today. All around us technological, social and developmental changes are taking place. These will propel Sri Lanka also into a situation over which we neither have choice nor control. Therefore, it is wise to be prepared to participate actively in change. Four million Sri Lankan school children of today will be participants in the world of the 21st century and they have to been educationally equipped to adapt themselves to a changed and changing world, with its challenges and demands. Moreover, these children and those who follow should be endowed by the new educational system with the capacity for continuous learning for that alone will decide the viability, autonomy and integrity of an Asian society such as Sri Lanka.

Facets of the Future

Another related need of the 21st century would be a wider and deeper capacity for learning that would not be confined merely to the individual (school child) alone. The learning capacity of institutions, public or private, has to be enhanced. The public sector lags behind in understanding the changing realities in which they have to function in the future. All organisations, be they public or private,

particularly education and knowledge imparting institutions, should expand their learning capacity so as to assimilate large volumes of information and respond to them constructively and creatively. It is only then that the Sri Lankan society can change into a learning society that will be able to respond to the quick changes that it will confront in the 21st century.

A major problem of the future will be the provision of formal education to the large numbers attaining school age, whilst also simultaneously catering to several adults who have yet to gain fundamental skills of literacy and numeracy. But the problem of numbers, although formidable, should not make Sri Lanka oblivious to the fact that what is needed in readying oneself for the next century is not just more education but also various types of education. The challenge to learning in the future is the challenge of a fast changing set of circumstances that impinges on every part of society. The challenge is not only in the field of education proper. It calls for an expansion of the learning capacity of the nation as a whole.

What is required is a future orientation. In an extremely fluid employment market even the much spoken of vocational training is like an attempt to hit an elusive, mobile target. The jobs for which training is being provided may, at the end of it, no longer be available! Hence the future focus should be on retrainability rather than on training for specific employment. Training should engender the capacity for innovation, improvising and identifying emerging opportunities in a new social and technological context which cannot be presently envisaged. The accent on education will, therefore, have to shift to adaptability and creativity. Versatility and variety in the provision of education in the future should meet the aforesaid objective.

The need for Value Based Education

While in the future we would clearly have to use technology in education, especially in the area of mass media and computerisation, we should recognize that these technologies alone cannot educate human beings to think for themselves. In order to educate human beings we need to understand what we want them to be. Sri Lanka should identify what characteristics and qualities should be imparted through education. Secondly, we also should understand what humans should be able to do. In this respect mass media and computerisation can provide an answer. Mass media and communication technology may teach humans how to work or how to do things. But the first element of teaching humans to think for themselves is a matter entirely left to humans themselves. Human beings have to learn from the social institutions around them; from socialisation and cultural processes. Sri Lankans have to learn to appreciate the Sri Lankan way of life and the Sri Lankan society. A Sri Lankan can learn this only from his interaction with his fellow humans regardless of the tools or machines available. Tools and machines only facilitate the process of learning. Learning from the teacher, family and society has been an ongoing process. But in the future such a learning may be even more significant than now, especially in regard to acquiring a knowledge of values, norms, social interactions and ethics without which education will not be wholesome.

Clearly education is neither value free nor can it be devoid of value. Indeed, when we think of future education, there is inherent in it, a view of the moral order of the future. It is through values that we are able to evaluate and understand the world and ourselves, and interpret the experience and make it comprehensible to ourselves. To deny the inculcation of values to learners because of adopting a detached

view, or moral neutrality or irrelevance to values in preparing for earning a living is to try to justify education without purpose.

Education must be underlined and enhanced with the correct sense of values that would provide learners with a richer moral sensibility and better human understanding.

This study however is neither exhaustive nor meant to explore all educational advances that are indispensable if Sri Lanka is to have the education that is essential for it to reach the status of a newly industrialised country (NIC). The NICs seem to be the leaders of today which others wish to emulate. But the account that follows briefly delineates a relevant and significant transformation in education that will be required for the country to progress economically and otherwise to turn into a newly industrialised economy (NIE) and country.

Towards the 21st Century

Rising participation in education can no doubt, inevitably result in raising literacy rates. And universalisation of education can lead to eradication of illiteracy which, in turn, can enable the country to progress towards achieving the NIC status for which education is imperative. A Sri Lankan objective is increasing primary school enrolment from the present 92 per cent within the next two or three years. If the drop out rate is simultaneously arrested and educational opportunities are made available to children in remote localities lacking facilities, universalisation of primary education can occur before 2000 A.D.

The obstacle towards achieving this target is the low educational level of certain segments of Sri Lankan society.

The labour in the plantations whose educational needs were subordinated for economic gain by the colonial administration remained neglected in their enclaves in the newer social development policies in the post-colonial decades also.

Primary Education

Since poverty related factors formed the root cause of non-enrolment in primary education, the Sri Lankan government has recently introduced corrective measures. The Literacy Centres Programme implemented by the Ministry of Education can assist the country to reach the declared goal of eradicating illiteracy by 2000 A.D.; the target group is the out of school children and youth.

Curriculum is designed to impart literacy, numeracy, social and vocational skills. The Centres use flexible class hours to enable students, to engage in income generating activities to gain from programmes. There are 240 literacy Centres mainly in urban areas. There is also a proposal to establish such Literacy Centres nation-wide, in both rural and urban areas. That would enable larger groups of people to benefit from this programme.

Establishment of primary education classes in the premises of temples is another progressive step taken to achieve education for all by 2000 A.D.
Government has also initiated various ways of enhancing the capacity of the formal school system to attract and retain students. Provision of free textbooks, conducting appropriate teacher training, awarding bursaries and scholarships and carrying out nutrition programmes. Remedial teaching is provided in language and mathematics to help primary school children repeating grades.

The free textbook scheme for school children provides financial relief to parents. A direct consequence is an increase in student enrolment and retention.

Government has also initiated guidance and counselling activities to help children overcome stressful conditions brought about by learning difficulties or examination fears.

The bursary scheme has benefitted 5000 primary level children in 1990, and this had been increased to 25,000 in 1991.

Private organisations are mainly allowed to operate pre-schools, not considered to be a part of the formal school system. Many NGOs run adult and community education programmes comprising basic education components.

The local clergy are encouraged by the Ministry of Education to organise primary education classes to serve children who are not provided with formal school facilities. All these measures are expected to contribute positively in achieving the goal of primary education for all by 2000 A.D.

Primary schooling is the main delivery system for the basic education of children outside the family. Primary education hence needs to be universal to ensure that the basic learning needs of all children are satisfied, reckoning the culture and needs of specific communities.

Literacy is the essential skill that provides the foundation for other skills. It helps people to benefit from education programmes in health, nutrition, population, agricultural techniques, environment, science, technology, family life and other social issues. Therefore, universal primary education is crucial for catering to the developmental needs

of the economy and society. In Sri Lanka if the drop out rate is arrested and educational opportunities are provided to children in remote areas the goal of universalising primary education can be attained by 2000 A.D.

A Survey of current trends in education in Asian Countries clearly indicates a close relationship between achievement in primary education and level of literacy. To maintain a high level of functional literacy, continuing education opportunities must be provided to the newly literate population.

A suggestion from the Asia-Pacific Programme of Education for All (APPEAL) prompts countries with literacy rates over 80 per cent and a primary school enrolment ratio over 90 per cent to improve the quality of primary education, extend compulsory schooling years from nine to ten, and strengthen continuing education programmes for youth and adults so that they become active partners in industrial development - This advice has to be taken seriously if Sri Lanka wants to advance towards NIC status by 2000 A.D. The main objective in "continuing education" is the development of a functionally by literate, productive and responsible citizenry.

Continuing Education

People are encouraged to continue learning on their own to improve the quality of their lives and to participate in national development efforts. Continued learning is fostered by access to pursue alternative learning systems that provide particular attention to out-of school youth as well as illiterate/neo-literate adults. In Sri Lanka, programmes have been formulated to develop skills and community education programmes contributing their efforts towards fostering continuing education.

Various types of non-formal courses constitute continuing education. Government ministries, departments, and private sector organisations execute continuing education programmes, specially designed to benefit employees. The main objective is the development of skills related to specific vocations and professions. The Institute of Worker's Education and the Open University conduct certificate, diploma and degree courses for employed persons who aspire to obtain higher education but were unable to enter conventional universities.

Programmes of continuing education have to be identified. Then policies should be formulated to strengthen their capacity to conduct courses pertaining to skills, technical knowledge and attitudes needed to increase the human resources stock which will hope to supply manpower needs of the island' economy by 2000 A.D.

A Relevant Curriculum

At secondary level, relevance of the curriculum and mismatch between output of schools and manpower requirements of the economy remain a formidable challenge. Emphasis on academic subjects and examination mean that many school leavers lack practical knowledge and skills required in employment. However, the problem really is more one of slow growth in employment opportunities, combined with other labour market imbalances. Yet the Asian Development Bank Report criticism that curriculum has withstood all attempts to change it from having an academic "books" content instead to furnished a more work oriented education is true.

During the 1960's a major problem related to the content of education and its relevance to the economy was emphasised.

The ILO Mission (1971) stressed the hypothesis that unemployment in Sri Lanka was principally owing to an imbalance between the aspirations of the increasingly educated young entrants to the labour market and the pattern of employment opportunities available. Subsequently, the education system was overhauled in 1972 in an attempt to partly vocationalise secondary education.

New educational reforms aimed at creating a compulsory vocationalised component of a core curriculum, e.g. pre-vocational studies. But this practice was abandoned since 1977 and with UNDP assistance, the subject of 'life skills' was introduced in grades 7 and 8 of the junior secondary schools over a 12 year period (1987-1999). These diversified components were 'interjected' into the existing curriculum as one option among their academic options, and was made compulsory. Nevertheless, as a result of these reforms, schools did not turn vocational.

Stress was not on production of job skills, but on pre-vocational "know how" and with it an important attitudinal strand. The intention was to encourage attitudes and training conducive to acquiring employment skills needed in rural areas after leaving the school. These reforms could be described as small and incremental rather than radical. According to a UNESCO sector report (1990) the result may mean increased external inefficiency as the qualitative manpower requirements of the economy are likely to change more rapidly than the curriculum and its delivery modes.

Any policy formulation for the future should ensure adequate facilities for vocational education; even a system parallel to the formal school system that is linked to the labour market. This has grown crucial as 67 per cent of the unemployed population have qualifications above the G.C.E.O/L (G.C.E.O/L 27%, G.C.E.A/L 32% and Degree

holders 8%). This was due to the mismatch between curricular provisions of the school system and the manpower requirements of the economy.

Co-ordinating efforts of diverse national agencies attempting to address similar needs of the same target population has posed a serious problem. This was the case with a multiplicity of programmes in vocational and technical training which are operated by at least twenty different ministries and agencies.

Since 75% of 350,000 youth who leave secondary school annually receive no further training, government has expressed its commitment to tackle the problem of co-ordination by establishing a Tertiary and Vocational Education Commission (TVEC). It has to prepare a plan for the development of tertiary and vocational education . The TVEC has identified about 2000 institutions providing such type of education: 700 of them have been considered for registration and 655 of them are vocational training institutions providing 400 different types of courses. Numbers indicate the complexity of the problem but co-ordination of the diverse courses of study is imperative if Sri Lanka is to progress educationally in keeping with the calls on it anticipated in the next century.

Education for Nation Building

Another curricular area which needs more attention is education for national integration through a properly formulated programme of multi-cultural education. S. Jayaweera has pointed out that while egalitarian education policies were actively promoted fifty years ago, education for national unity has never been envisaged at policy level. There has to be a clear determination and acceptance of educational goals for a multi-ethnic society, goals that en-

compass equity, cultural diversity and national unity. The school needs to be perceived as an instrument for national building. The local situation requires the formulation of specific strategies to achieve two objectives - equity and socialization to accept cultural diversity within a framework of national unity (S. Jayaweera, 1993).

Multi cultural education is one major way by which societies have attempted to reconcile goals of a democratic society with a pluralist population composition. The goals are social cohesion, provision for the maintenance of reasonable social and political stability, along with cultural diversity which active encouragement of and support for a diversity of legitimate cultures. In addition, multi cultural eduction can play a major role in Sri Lanka, where various groups can use their differences for growth rather than defining them as sources of conflict.

There is also a realisation throughout that education contributes much towards solving problems of environmental degradation, pollution, destruction of habitats, flora and species. The goal of environmental education is to improve a pupil's ecological awareness and environmental behaviour. Moreover, such education also makes pupils adopt salutary attitudes or hold health opinion on social developments.

The first goal of education should be to foster among students a sense of responsibility for the state of their environment and the second goal should be to teach them practical skills on monitoring the environment, protecting and improving it. Education should sensitise students towards an intolerance of carelessness and wastefulness of nature. A core curriculum for environmental education should be formulated soon in secondary education, which will include elements of science, technology and social education.

With rapid advancement in science and technological education, radical and quick changes in life are imminent and will take place fast: changes in economic growth, social attitudes, beliefs and values including a moral development of people. Modernisation and urbanisation which follow as contributions of science and technology have introduced a new urban life style. Competitiveness and consumption oriented behaviour are some of the notable changes.

Many countries tend to have their education systems stem from utilitarian and economic perspectives, which often reduced the importance attached to human cultural and moral values. Human values and moral principles tend to get relaxed. Consequently ethical and cultural behaviour deteriorate. This brings negative consequences for individuals and more so to communities Modern thinking is that the most important goal of education should be imparting a more realistic perception of human, cultural and international dimensions of education. Education must preserve the humanistic dimension of real development as well as not lose such values as peace, tolerance, solidarity, respect and openness towards others.

Values can be taught to students directly in separate courses or be integrated into other components of the curriculum such as social studies or natural science courses. These values can be infused through the informal curriculum of the school community, the family or through social action. The non formal sector has a special role to play regarding the inculcation of values and standards in life, work, family and community.

Education : Industry, Science and Technology

Rapid industrial and commercial growth is taking place in Sri Lanka. This is one of the attributes which, if further developed, can lead Sri Lanka to the status of a NIC by 2000 A.D. Hence it is important that science and technology be introduced to children early during their school career. Since a large proportion of children leave by the end of the primary level, postponing any study of the world of work to the secondary school is therefore late

Study of industry and technology even in primary school will help them better understand the world around them. A central aim is, thus, to furnish children with information to counter their assumption and replace them by a knowledge of the range of industry, its link with their lives, and its use of technology. Additionally, their negative attitudes towards work get readily transferred when they become involved in studying industry.

Much of what children may learn in classrooms about materials, forces, the effect of heat, techniques of measurement-tend to mean something in real terms when they see it in a productive process.

It is important to give children an experience of both science and technology through indicating a clear recognition of the different educational roles of these in the curriculum. Science is concerned with understanding the world around us and technology is concerned with using resources of materials and energy to achieve some purpose related to human activity. So far the compromise of a mixture of the two has been a poor development in the curriculum.

Science-oriented activities in which application of scientific principles in every day life should be studied so as to comprehend the usefulness of science rather than for merely understanding the solution of a problem.

As technology becomes more significant in the lives of children it is necessary to scrutinize its role in the curriculum; for young children technology is best understood by participation in activities as they will appreciate underlying scientific ideas, because they not only operate at the concrete level, but also get involved intellectually in all stages of activity. The 'applications-first' in teaching science is new thinking and begins with the interests and experience of pupils; it is likely to be more successful at drawing their attention than the traditional 'science-first' approach.

University Education

Present problems of University Education is another area which needs serious consideration. As indicated by The Youth Commission Report of 1989, a fundamental challenge that faces tertiary education is how to meet the demand for higher education given existing resources while maintaining standards of excellence. Although University enrolment has expanded from a meagre 904 in 1942 to over 25,000 in 1990, student enrolment ratio for the relevant age group has remained at 2 per cent even in 1990 - one of the lowest in South Asia. The median of all developing nations is about 4 per cent, and for the advancing nations of Asia (including the NICs) it is closer to 8 per cent.

The increase in annual admission has been marginal. The percentage of those admitted out of the total number eligible for admission had been fast declining, from about 34 percent in 1970 to 13 per cent in 1980. Even with an increase in 1989 in admitting 36 per cent of those qualified, still it was low. A larger number of youth inevitably have to be given opportunities to enter universities.

The suggestion of the Youth Commission was that the Universities should gradually admit 18,000 of those who qualify. Another suggestion is that the participation rate of the relevant age group should be increased to 8 instead of the present 2 per cent.

However, any increase can take place only with very substantial increases in resource allocations and an increase in the efficiency of the existing system. But such expansion which could be effected through traditional universities, Affiliated University, Colleges and the Open University has significant implications of costs, financing and cost recovery, staffing and employment of graduates.

Conclusion

Advances and changes envisaged as well as expansion in education that is anticipated will, no doubt, involve considerable costs. But, in a market economy with competition as a feature, it is presumed that education will not be the concern of the government alone. Private enterprise would be expected to play a role as well. Moreover, the system of the targeted free education, itself, will need to give way to a form of cost recovery based on ability to pay. The economic changes which would occur as the country advances towards a newly industrialised country should enable increasing segments of the population to be in a position to pay for education.

Nobel Prize Winner Professor Theodore Schultz has stated that education is indispensable for growth in countries. The resources to provide the necessary education, and the ensuring of the right to such education to the people has to be a priority in Sri Lanka if it intends to reach the status of a NIC.

Note : Co-author Prof. B. Bastiampillai,
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