In a controlled experiment, the IIEP attempted to develop efficient teaching materials in the field of educational planning. Informal instructional materials were compiled from the tape recordings, transcriptions, and summary notes of seminars, lectures, and discussions conducted by the IIEP in its training and research program. This instructional unit considers the tasks of diagnosing educational systems and operations in light of social needs and in relation to the elements that make up a modern society. Related documents are EA 003 931-937 and EA 003 939-942. (RA)
The Fundamentals of Educational Planning: Lecture - Discussion Series

No. 47 THE DIAGNOSIS OF EDUCATIONAL SYSTEMS AND OPERATIONS AS A PRELUDE TO DEVELOPMENT PLANNING
by Nathan Kravetz

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The development of educational systems and operations has generally been in a direct relationship with conditions and needs of a given society. The simpler the social structure and its processes, the simpler the educational arrangements. As educational and social development become increasingly complex and include greater varieties of interrelationships, the consideration of needs for change becomes difficult.

In this paper I propose to consider the tasks of diagnosing educational systems and operations in the light of social needs and in relation to the elements which make up a modern society. It is difficult if not impossible to undertake the study of educational conditions and the relationships between education and social order without making some attempts to understand the factors which operate within that social order. The importance of investigating and understanding the effects upon educational development of cultural, social, political, religious, and other forces cannot be overlooked. Similarly, the effects upon society of educational practices as developed within systems and sub-systems must be looked into, defined if possible, and assessed. In effect, we are dealing with an ecological concept in which environment begins by determining the nature of the total system and which, in time, results in modification of the environment by some of the structures within the system which have been developed.

As a society changes, becoming more or less populous, producing more or less goods, shifting in its political forms and structures, increasing or reducing its relationships with other countries, and moving forward (or backward) with regard to previous conditions, the role of education is that of the hand maiden to change. That is, the tasks and responsibilities of an educational system must become attuned to such shifts and must reflect the needs and pressures which are generated within the changing social aspects. While there is a continual question as to whether education and educators may be prime movers in determining national policy and influencing it, or whether they must reflect and carry out national policy in a relatively subordinate role, the question is one which may be more philosophical than practical. It is in fact conceivable that educational systems 'take orders' and by the effectiveness of their operation produce changes in the policies which developed those 'orders'. This continuity of relationship is, of course, an instance of ecological interaction.

Thus, the changing aspects of society bring about and are in turn influenced by the operation of the educational system which has been developed. As an example of great current interest, the extension of educational opportunity to children of all social and economic groups provides the basis for a number of developments which are essential in a modern society. Such opportunity makes it possible to extend the concepts of citizenship to the very young and to develop in children the understandings which are requisite for political participation. A broad area of opportunity at the primary level thus provides an extensive base for citizenship participation within the existing social structure and in accord with its orientation.
When we observe emphasis upon citizenship development within social curricula, it is usually in terms of theoretical and practical aspects as they apply to existing political conditions. One must, at the same time, reflect that such applications of citizenship are directed towards future effectiveness and action rather than in the actual time and place of primary education itself. While we do not yet detect clamour for student self-government in the primary schools, it is conceivable that citizenship functions and activities can be made realistic for young children in their actual environment and thus provide a more effective preparation for future political participation than now obtains.

Similar understandings and more complex analyses of political and historical concepts are developed as educational structures within a system provide opportunity in the secondary and higher education levels. The service of an educational system to its society thus provides substance for the ongoing and continuous development of political structures.

The establishment of educational programmes on a broad base also makes possible a wider diffusion of cultural and social concepts. The acculturation of diverse groups through schooling has been successful to varying degrees but has had as its goal the establishment of common language, life style, social relationships, and access to what are considered to be desirable behavioural norms in a given society. In a number of instances the existence of diverse groups has led to the focus of educational structures and procedures upon one of two directions. In situations where there are multi-national populations, efforts have been made to educate toward a national norm so as to unify the various elements. This may lead to the elimination or dilution of traditional cultural attributes while producing an overall effect of communality. In this way, over a number of generations, effective school systems with broad enrollment possibilities have produced considerable social and cultural change.

In other instances efforts have been made to maintain cultural and social differences while simultaneously developing a strain of concepts common to all. Thus traditional multi-national groupings have been represented in curriculum, have been encouraged and supported in further development of cultural and artistic expression, and have been enabled to persist within a single culture. The force of educational processes in modifying social and cultural processes is obviously effective, and embodies a powerful potential for change in almost any desired direction.

From an economic standpoint, as opportunity for education increases, educational structure produces more highly-skilled manpower and hence contributes to the increase of production and consumption, and to more effective use of resources. While this may appear to be a logical and realistic sequence, it is quite dependent upon a number of intrinsic factors: the initial
availability of national resources, the motivation and interest in planning for effective use of resources, and the carefully planned and staged inputs of resources to produce the indicated results. We must add that there are too many instances where lack of planning coupled with complete openness of educational opportunity has resulted in unemployment or under-use of educated manpower.

The contributions of educational systems to human, social, and economic development are thus on the one hand salutary and desirable and on the other hand produce problems which must be recognized and studied for possible solution. Understanding of educational conditions and of the problems involved depends primarily upon an understanding of those conditions in society which affect education and which are affected by it.

The social forces or dynamics of change

There are in every society sets of elements which when they interact with other elements become what we call 'dynamics', or forces which produce change and which influence development. These elements come from the fundamental nature of the individual society and represent conditions as well as forces which moulded its growth.

Of initial and basic consequence is the historical context of that society. It is important to learn not only what are existing conditions and forces, but what forces produced the existing conditions. The question must be asked: how have the social structures which are being examined and which are affecting educational structures come about? Simply stated, what is the history of the society, and what have been the educational aspects within that historical development? As part of this process of questioning, one must investigate the changes in operations and systems for bringing up the young which reflect historical periods and previous conditions.

An important element in the development of educational structures as well as of social structures is one that might not readily be considered 'dynamic', and that is the physical location. Looking at the situation of a country we must study its topography, its climate, its access to the sea, and its altitude. Although this may be very simply determined and readily quantified, as such factors tend to differentiate social development and produce variations in educational systems, they are hardly simple and cannot be ignored.

Coupled with physical location are the factors of isolation in mountain or desert areas and in the more general factors of distance and vastness. These aspects do bring to bear a totality of effect so that they exert a decided influence upon at least one major feature of educational and social growth, that of communication.

This is a major feature because the opportunity for physical movement and contact has its results in verbal communication, intellectual interchange, and increasing control over environment.
The differences between countries and regions which are 'developed' and 'developing' might reflect the degree of internal and external communication which obtains. When we study national development with the focus of political science, economics, sociology, or education, we note that the improvement of the opportunity for communication carries with it a continual inter-weaving of development in these social aspects.

An example of this concept is found in the development of the Inca Empire in what is now Latin America, which operated, to a great extent, on the basis of highly developed communications with the Altiplano communities, from Argentina to Chile as far as Ecuador to Colombia, including effective adaptations for communications to coastal communities, and somewhat restricted communications to the jungle areas. There was a structured society and an educational system which met the needs of that society until the Spaniards arrived, and which has been seen by historians, ethnologists, and anthropologists as a self-sufficient society. It is ironic that, while we are stressing communication, a most amazing sidelight of the Inca civilization is that there appears to have been no form of written communication. Much of it seems to have developed as completely oral in a language which is widely spoken today, or by means of tangible and concrete forms that seem to have been symbolic in a linguistic sense that we do not yet understand.

But if we look further at the favourable effects of the development of communication, we will note that the access to the sea and the approaches from one region to another have stimulated the growth of society. We look, for example, at the Mediterranean basin in which we have found (as we take pride) a considerable cultural, educational, and philosophic development based upon the openness of communication in that area. One could add specifics to amplify this concept; it is clear, however, that a dynamic such as communication has enhanced the development of the social system, and within it, the parallel and requisite educational system.

I would like to mention other factors in national development which have their effect upon educational systems and upon the educational operations within those systems. Of considerable importance are the influences and developments of religion. The concept of deity (or of deities) has had an effect upon the nature of man, the configuration of the family, and the nature of the child. The concept of deity determines what happens in a culture which is concerned with interpretations of natural phenomena. Man wants to know why certain things are happening. When we provide explanations because of our view of the supernatural, or because of our view that natural phenomena are beyond man's capacity or potential to understand, then the educational structure will indicate this, and represent such influences.

We can make the point of religious influence with reference to the earliest developments in religion and culture as far back as the Egyptians and up to the present state of questioning, and consider what the effects have been upon educational systems. In many instances throughout history the development of education
has been very closely allied to an established church or to an established religious entity, and has been in the service of that entity or has been in parallel with the religious orientation so as to produce results in keeping with the established point of view.

I also note another element in the social dynamics which has to do with variations in tribal and clan organization. In almost every country the differences among tribes and clans have had their effects upon decisions with regard to education. Such differences have been with reference to family structures and to the development and use of language. What language shall be spoken, what language shall be considered major, and in what language shall we do the business of the state? Such questions when coupled with trends towards resurgence of formerly prevalent languages wash over beyond political and cultural areas into educational areas and become aspects of controversy. Thus tribal patterns based upon language can be divisive and place pressures upon educational authorities for the introduction of various cultural and language elements into curricula.

An additional factor which is also related to tribal and clan patterns is the place of women in culture and basically in the educational programmes. While men have smugly over the years maintained direction and control of 'women's place', and in many social situations still do so, demands for social and economic emancipation of women have produced great change and have modified existing tribal patterns. This factor, the place of women in a social order, is involved in the development of manpower supplies, in the utilization of women as educational personnel, in the expansion of economic and social opportunity for girls, and in the necessary organization of curricula programmes.

A major factor in any social order is that of the economy. What are people doing in order to live? Are they agricultural? Do they grow seasonal crops? How do they work the land?

One matter that must come to our attention is that of whose land are they working. Are they working small, dispersed pieces of land which may belong to the individual farmer and to which he must move from day to day? Are they working someone else's land on shares? Do they serve on a large plantation in which the individual farmer has no real investment except his own efforts and for which he is paid a wage as if he were a city employee. Such questions require study as do those which concern the existing resources such as water, conditions of soil, and the utilization of appropriate tools.

What does all of the foregoing do to the nature of the schooling that must be provided for the children? Similar questions must be asked when we consider communities and settlements in which fishing or mining or manufacturing are basic. What is the economy, therefore, and at what level does the economy function?
Educators must turn to their colleagues in economics to be sure they understand properly the development of a specific society. Our own view may be that the economy is functioning poorly when we look at the people and see how they are living. It may however turn out that according to the criteria of the economists they are functioning relatively well and are moving toward even better development. Economic factors and the understanding of them by educators are basic elements in the improvement of education and in the proper establishment of educational structures. The costs of an educational system tend to govern the establishment and operation of that system and thus have a direct relationship to the results of system operations. The organization of educational structures as well as of the ensuing processes cannot be effective without close attention to the principles of economics and to the specific data generated within a particular economy.

A further concern within a society for the development of education is the existence of rural and urban populations. We must know what is the nature of life in the rural areas and the conditions and ensuing needs of the people. Similarly and perhaps of increasing importance, we must understand the urban situation. Population movements from the rural environment to the urban must be studied in the light of ensuing conditions in rural regions and the effects upon population influx in the cities.

It is important to determine what structural and organizational requirements arise as a result of an increasing birth rate in a country and of migrations into urban areas. Further, what happens when in a particular country there is a nationalization of resources including land: when large holdings are redistributed; or when virgin lands are opened and pioneering settlement is invited? What do such actions require of educational development.

Finally, although I have not exhausted the factors or dynamics within a society which affect its educational development, we must ask about the nature of the political system. Political systems tend to generate specific aims and viewpoints thus requiring appropriate educational systems and operations. Since form follows function, from a political point of view the goals which are established within a specific society determine the form of the educational system.

The curriculum: fits and misfits

In the preceding discussion I have intended to indicate the ways in which social dynamics affect educational development, and to stress that ecological relationships include education as part of the man-environment system. This discussion, while primarily focussed upon overall systems and operations, is also intended to introduce the view that social factors which produce structure must of necessity be influential in determining other internal elements. Thus the
development of curriculum content and sequence together with methodology and use of materials follow from the same requirements and tendencies. The education of pupils, conditions of teaching-learning, services of orientation and guidance, and procedures for achievement evaluation are similarly based upon social constraints. These personnel and process elements, including teachers and school administrators, represent the requirements of development in a given society. I will consider these relationships in the remainder of this discussion.

The curriculum in an educational system comprises the procedures used to move toward the goals of that system. It is in the curriculum that content is specified, as to what shall be taught, the order and sequence of teaching, the methods by which specific instructional goals shall be achieved, the relationships within classes and schools, and the uses of materials to aid in the foregoing processes. As has been stated earlier the curriculum tends to reflect the social situation in which it operates. It tends to utilize the methods, content and materials which are determined either specifically or by inference from the nature of the society. Thus the curriculum embodies rudiments and simple forms or it includes thoroughly structured fundamental skills and broad areas of both intensive and extensive subject matter treatment, in accord with the social conditions as well as with the nature and preparation of teaching personnel.

In considering curriculum in the light of these aspects, there are often, however, developed what I call curriculum 'misfits'. A curriculum is a possible misfit when what is taught in a national system of education is developed in imitation of the curriculum prevailing in another system with which it has no real conformity - of interest, of previous development, or of existing need. This may be exemplified in circumstances where developing countries enthusiastically discard the curricula of the former colonial power and don the educational pattern of another, perhaps more admired or momentarily benevolent country.

Second, there is the misfit which exists when educational authorities insist upon maintaining or continuing a curriculum which was established by the colonial power that is no longer present, and whose aims were distinctly different from those of the new government. We have multiple examples where colonial powers organized educational programmes to select-out the most highly promising, and to fail others, or to assign others to positions in posts of little value. The selecting-out ultimately came to be a kind of 'star' system, and these 'stars' were chosen to serve in government, to take advanced education, or to become intermediate managers in enterprises of every kind. There is a serious question as to the value of this system for a new government in terms of the needs of the mass of the people.

There is a third kind of misfit which occurs when national ambition 'over-leaps itself' and fails to take reality into account, and when there are desires to make expenditures in areas which are so advanced or so irrelevant as to have no relation to fundamental groundwork. I might refer to the development of
nuclear competence. I am not referring to the size of a country nor to the size of its population as much as I am speaking of institutions in those countries which are not sufficiently supportive to maintain the necessary research facilities and which become a drain upon the country, a problem for the maintenance of appropriate faculty and, of course, with costs which are excessive. This kind of misfit in curriculum development is related to policy decisions which clearly require further consideration.

Among the additional misfit curricula I would include the primary curriculum which is often found in rural areas. In these cases rural schools expose children to concepts which do not take into account the very specific elements of the region and community in which they live. Such primary curriculum content and materials include information on a general and abstract level about geography, history, natural science, without reference to the geographic features, natural science concepts, historical artifacts, and other characteristics which are often close at hand and which ought to be studied within a school curriculum.

Further, there is the misfit which occurs when the requirements of a country as to technical and scientific training and as to development of other intellectual cadres (including those in the humanities and the arts) are improperly assessed and inadequately supported in school curricula. The ensuing misfit is most frequently observed in developing countries where emphasis continues to be given to general studies at the secondary and higher levels at the expense of much needed technical, commercial, and industrial skills. The remedy for such conditions is inherent in the collaboration of educators with economic planners in assessing conditions and needs with an ensuing appropriate action programme within the school system and its curriculum.

Still another form of misfit is observed when the formal curriculum of the school does not include, or fails to note, the out-of-school conditions and environment which form another 'curriculum'. While this problem may be linked to economic factors it also includes the problems of such out-of-school factors as mass media, population shifts from rural to urban areas, changing means of transportation, and modified opportunities for use of leisure time. In such cases where the out-of-school curricula are quite pressing, readily available, and inexpensive, the in-school programmes come to be recognized by students and parents as irrelevant. This too is a misfit condition which ought to lead to study and ensuing development of proper curriculum within perhaps modified educational structures.

There are doubtless other 'misfit' conditions which observers may note as they study the development of education in various countries. Through the survey of such conditions as they appear in curriculum and in educational structure, one can begin to move toward the right fits, and estimate and determine appropriate curriculum and structure.
We should recall that as nations develop their interests in curriculum centre around their own specifically defined background and needs, and it is necessary often to remind educational authorities and planners that the first basis for developing educational systems and curriculum must be to look at their reality.

It is my belief that an individual of whatever discipline cannot make an appropriate summary of the needs of a country. This task is basically a team activity where authorities must call upon other social scientists and investigators for an examination of those needs. Such a team effort should then produce not only a clear definition of the needs but a consensus programme which would embody action guidelines in terms of the specific country.

In the consideration of curriculum and content we find numerous instances where national development and the general aims of society are served. Particularly in the teaching of history, educational systems tend to present individualized concepts which maintain existing national principles and support existing conditions. Study of curriculum content in history and a review of textbooks used in various countries will illuminate this point. There is no question that countries require of their educational systems the service which will develop and maintain respect for tradition, patriotic enthusiasm and fervour, and a sense of affiliation with the national group and its development. Obviously one may always detect in such studies the appearance of some bias in opposition to other countries, continually to the benefit and advantage of the society under study. While this may not be necessary for the achievement of national goals, it is difficult to exclude such references from historical and traditional materials. In each of our countries, I am sure, we may detect such usage of curriculum and tendencies of denigration of other countries. For planners and educational specialists in curriculum, the foregoing understandings are fundamental to establishing guidelines for future development.

The child as learner and citizen

There is another concept which influences educational systems and operations and that is the concept of the child as a member of his society, his family, and as a learner. If all children are considered to be alike in their abilities, we find a non-varied structure of classes in schools. Thus, children are all the same and all start at point one. Being undifferentiated we expect that they will learn continuously through to points two, three, and four, and so forth. While this is a hypothetical case and the condition is certainly not one of reality, we do find that in some countries children are grouped for learning as if there were no variations among them. In a few cases children are promoted and moved forward automatically from year to year as if they had achieved the same gains. I should point out that even in systems with automatic promotion there is a tendency to track or stream children through different quality levels and to recognize that, at the output end, one child's certificate or award is not equivalent to another's.
If then, children are seen as almost identical if not exactly so, we have relatively non-varied curriculum and methods of instruction. The curriculum and methods tend to be the same throughout the country and make it necessary (and convenient) to approach the total structure of education on a centralized basis. Centralization tends to ensure, first and most simply, that education shall be uniform. Obviously services provided through this centralized approach can include preparation of books, of materials, certification of teachers, and so forth. Further, with a centralized system one can maintain the concept of the unified and uniform curriculum, and assumptions can be made with regard to the kind of product at the output end.

I would like to believe that the centralized curriculum is aimed at producing man, the citizen, and that the product is truly, man, the citizen. Evidence is needed. If the learner is seen in a given country as one who is soon to enter the society as a producer, a curriculum is developed which will be organized to that end. And a relatively reduced system of education will operate so that production may be undertaken fairly soon. If educational policy-makers are more concerned about the learner as an individual, such concern is usually expressed in an interest in developing his fullest possible potential. Following such concepts, educational systems provide an extended structure with a number of possible tracks and varying directions. The curriculum is not necessarily single or uniform though it may be generally oriented toward common goals and may offer a variety of time sequences for achieving those goals.

Ritual and ceremony in the curriculum

The concepts held in a society with regard to its learners affect teaching procedures and the materials that may be used within a curriculum. We find that there may be rote learning, memorization with return of memorized statements, formulae and dissertations. The learner is seen as what has been known as a tabula rasa, a clean blackboard on which the teacher writes and from which the learner returns data to the teacher for evaluation. This is a concept of the learner which is all too frequently found and which is often connected with formal, repetitious rituals and ceremonies that relate the educational system to the requirements of society. In many countries daily ritual and expressions are required, recitations of specified material are conducted, presumably to inculcate in the child through repetition, not necessarily meaning and not necessarily the depth of whatever emotions may have been involved, but the experience of participation in a joint expression that is essentially verbal.

Such rituals which are imposed upon the child through his being controlled in schools as a 'captive audience', include patriotic sentiments. They may be expressions of allegiance and adherence to existing political situations, and may focus upon precepts, concepts, or upon individual personalities who have been presented in the light of ritual orientation.
In many countries children participate in religious exercises which may be placed each day at the beginning of school, or at any other time in accord with the requirements of the particular sect. In most countries where there is homogeneity among the citizenry this exercise provides similar religious activities acceptable to all. It is in those countries with a number of religious groups where such observations in schools may provoke dissension in the community and discord between the schools and numbers of citizens. In the latter case the inclusion in curriculum of ritual and ceremony is difficult to approve since it may tend to exacerbate existing dissensions and carry them into the schools where the more important goals may not be achieved as a result.

In the former case a homogeneous society may find no problem in the integration of religious observations within the schools and, in fact, such observations may provide a continuing basis for a sense of national membership.

A third element of ritual observation in the schools may be found in some countries where pupil conduct and the operation of a class may in themselves provide a basis for repetitious activities which ultimately become the equivalent of ceremonies and rituals. Thus, accepted and desired procedures for classroom activities, for children's responsibilities in the classroom, for organizing the work of the day, tend to become formalized and not only verbal but physical and overall parts of children's day-to-day expectations and behaviour. It is often interesting to note that when such rituals and ceremonies have been thoroughly inculcated, children become disturbed when a new teacher arrives and attempts to institute other practices and other forms for carrying out daily activities. As part of curriculum, ritual and ceremony have their place, and they give to children a sense of order and a sequence for action. Psychologically, they offer a 'set' for further learning, provided there is maintained within such activities meaning and understanding.

The form in which rituals and ceremonies in schools take place may indicate the view which is taken of the learner by his society and specifically by those responsible for education. If he is given an expression verbally and is required to state it, repeat it, en masse, we may infer that he is seen as docile and passive, and that his future behaviour in society as a citizen could be the same. Unfortunately this concept of children is quite prevalent, and while it may indicate that children are expected to be passive and conforming, in most societies the role of the citizen is rarely stated in such terms.

There is on the other hand the view of children as learners who are not passive, receptive, and simply rote-learners and rote-responders. In some countries, taking the lead from educators and psychologists, children are seen as most of us believe them actually to be: curious, inventive, searching, creative, and responsive on the basis of experience. In these circumstances it is seen considerably less of the kind of curriculum which requires memorization, but rather children are involved in decisions about the curriculum and about their roles in it, under the guidance of qualified and confident teachers.
Such concepts have been expressed by educators from Rousseau forward as being more consistent with the nature of the child and hence more to be taken into account when curriculum is developed and when operations and methods in an educational system are determined. Thus we have once again the concept of the learner in a given society affecting the nature of the processes in which he is involved. It is true that specific examples of such situations are more to be found in individual schools throughout the world than within national systems as a whole. For planners, it follows that we must understand the relationship between the nature of children, the aims of an educational system, and the forms which structure and curriculum take to achieve those aims.

The teacher in the system

In the same context another important aspect is, of course, who does the teaching. This question is also related to the overall nature of society when we study to determine the concept of the teacher, who teaches, and at what levels. For example in a so-called 'developed' society we would expect that value would be placed upon its teachers to the extent that their salaries would be equal to those of other significant contributors to societal goals.

We would further expect that in advanced societies it would be recognized that the child of primary school age is most impressionable and most amenable to being moulded into the kind of citizen that society wants. It should also be clear that the primary school enrols the greatest number of children. Thus it ought to follow that in this most important educational level the primary school teacher would be the best educated, the most carefully helped, and the best paid. I would suggest that this condition is unlikely to be found in any country we might study. But it is this set of considerations which prompts us to point to the importance of the teacher's role in society and to the lack of recognition of this role.

There are many instances where the primary school teacher is himself a recent graduate of primary school, where the secondary school teacher is a university graduate who teaches his subject, and where no-one is aware or concerned as to whether the teacher is teaching students. There is an important difference. Too little attention is paid to whether the teacher in training has received any concepts about what learners are and whether the teacher arrives at his post with more (or fewer) assumptions about the learners than he should have.

Procedures for training teachers of primary schools in developing countries are generally on a secondary education level. And the teachers who are going to have great responsibilities in a short time are dealt with as if they themselves were immature pupils. They are then suddenly cast forth to undertake their responsibilities. It is doubtful that the sub-structure of a teacher-training programme in an educational system takes reality into account under such circumstances.
In the case of primary teachers, their education for service rarely relates to rural education although most of them will go into rural areas to teach. Such preparation tends to develop insufficient connection between the curriculum to be offered and the region in which the teaching takes place and in which the children live.

In general the qualifications of teachers are established in both the 'developed' and 'developing' countries in terms of careful selection, required training, adequate preparation, and periods of carefully supervised early work. While most countries state such requirements as qualifications for teaching, the general supply and demand of personnel in the schools are not met when such qualifications are seriously applied. Thus some teachers may be qualified on the basis of these criteria; others are placed in positions because there are not enough qualified teachers. In other circumstances, men and women seek to become teachers because their aspirations for other professional posts have been frustrated and they have entered upon the tasks and responsibilities of teaching with reluctance and little concern for its importance. There are other instances in which the problems of qualification criteria, of motivation to teach, of lack of aptitude for work with children, and insufficient preparation are generally present. In these circumstances some teachers may learn as they work, depending upon appropriate supervision, and others may continue to work though they may never learn how to carry out their responsibilities on a professional basis. These conditions require that every educational system places appropriate emphasis upon the careful selection of candidates for teaching and their education, while seeking to up-grade the quality of instruction at all educational levels and with due attention to those teachers who need help most.

Goals and services in educational systems

In considering the development of national educational systems and sub-systems it is worthy of note that the overall purpose of such systems is to provide for the needs of society as such needs are defined by those who have the power to diagnose them and then place into operation the budgetary allocations which will make things move and work.

The system of education as seen in a national perspective has several basic purposes. First, it must function so as to serve the interests of its most fundamental elements. These are the schools, the students in the schools, the teachers, and the community. If the structures, the hierarchy, the offices, departments, divisions in a ministry fail to serve the best interests of those elements, one may question the value of the system and its component parts. One may find, in fact, that the basic elements are seen as if they were a kind of a nuisance interfering with the functions within the national ministry, and causing excessive strain and disturbance to its smooth on-going and interrelated activities. Nevertheless, the basic elements are still the schools, the students, the teachers, the community.
Second, the personnel who are designated as a department of evaluation must learn to study the effectiveness of the system's operations. How well is the system serving, and how do we know? How well are the schools serving their own clients, their own constituents? How do we know? How well are the supervisors serving the teachers and how are the teachers working with their classes in their communities? If the system is going to be useful, it must learn to look at itself and its functions. It must learn to encourage self-study within its sub-elements. This evaluation of effectiveness, whether done 'within the house' by a department, or by outside, more impartial agencies is a sine qua non for any educational enterprise regardless of size.

In many instances we have seen the publication of tomes representing the system's personnel as they have evaluated their own structures and their own services. It is conceivable that they may have exercised some bias in evaluating their own work, and it is interesting to see whether outside agencies could do a more realistic job of evaluating the services of such systems.

A third important service is that the system from the very highest altitude within it must provide leadership and encourage leadership. This purpose comes from the two before. A system may move in established patterns and the wheels may turn, but leadership must come from where leadership resides, with those who have the major responsibilities. It is at the so-called 'summit' level that clear willingness must be shown to receive innovation, to seek the improvement of the status quo, and to permit the risks that must be taken. The 'status leaders', as I would call them, are people who have risen to points of great responsibility.

Their responsibilities are basically those of making decisions and of using resources. If these people decline to exercise leadership, to lead toward better use of people and resources, and toward more appropriate decisions, then the task of leadership is not being exercised. There are risks to be considered, risks in terms of costs, in terms of misplaced effort, and sometimes in moving toward a direction which turns out to have a dead end; these are not permanently damaging risks and they often need to be undertaken. This kind of leadership, if appropriately exercised, can thoroughly permeate an educational system and become a model for all the individuals beneath it who develop their own needs for leadership roles and the drive toward innovation as a response to changing circumstances. The example of effective leadership at the most responsible level can encourage the exercise of leadership in the so-called 'lesser' levels where school directors can examine a situation and determine that here is something that had better be done, so let's try it, let's work on it, let's see if we can!

An important part of the leadership role is in the release of energies to undertake administrative tasks. Simply stated, administrative action means taking the decisions and carrying out the ensuing responsibilities so that the system will move. Even more to the point is the concept in which the purpose of administration in education is to facilitate and support the work of the people in the schools, the teachers, directors, and students.
In centralized systems such procedures as are required of administrators depend upon signals which are handed down: there is a 'direction' signal which says 'this is our policy', there is a 'feasibility signal' which says 'here is the money, get the people' (or 'we have the people'). Then, there is a 'go signal' which means just that. This passing of signals from one educator to another is a feature of centralized systems, and it works efficiently provided that all the signals are properly sequenced, that the senders and receivers of signals are equally perceptive, and that the final receivers of signals are prepared and empowered to act.

In decentralized systems, we may find small hierarchies in which similar conditions exist. However, we may find it difficult to detect the starting point, or the intermediate points may not be in direct relation to 'signal-makers'. This situation requires study and planning so that communication will promote administrative effectiveness and action.

The example of leadership exercised and the willingness to study and to take necessary steps can permeate a system and make it a form of general behaviour for all the responsible individuals who are in it. This is not to urge precipitate change or a perpetual 'dance' of new projects, new movements, and new ideas. Rather, the responsible individuals and groups must make use of their resources and study in what ways change should be sought and in what aspects they might innovate: how can they try out new techniques or a new structure? A new structure sometimes means eliminating somebody's division, somebody's section, cutting down on one department and enlarging another. When such changes are attempted, individual or group interests might be threatened regardless of the possible value to that structure when it is revised. If the relative priorities can be determined the best use of human resources will be made.

The tasks of the system, then, are to serve, to guide, to monitor, to lead, and as needed to modify itself, to change itself, to add, subtract, or change direction.

Educational change has always moved in two directions at once: from the local small community or village with whatever teacher-pupil organization is feasible at one end, and from the national or system authority end with personnel, plans and resources, so as to link together and give order to the very smallest units. The surge comes from one end in terms of specific needs and another surge comes from the other end with a reason and a need to provide order and structure and meaning. Therefore, our view of the structure of education must also take into account that there is a dominant national agency which participates in the planning, the organizing and the directing and, the budgeting of the programmes which govern the total system.
Additional services are control and direction of teacher-training, teacher selection and placement in posts, record-keeping for purposes of salary or retirement or transfers. I place stress on the salary aspect again since we have experienced situations in which salaries for teachers in rural areas do not seem to arrive on time, where the greater the distance from the ministry, the less accurate the record-keeping, and the lower the morale of the teaching and other staff.

The concepts of the system and its functionaries filter down from a national centre to regional, state or district stages by way of directives, messages, visits and, of course, subsidiary personnel. In this way, the supervision of the actual processes of the system are carried out. Inspectors visit classes and schools. They may also conduct meetings and teacher-training courses. Others in the regional state or district centres may provide special services for children and families. There may be social welfare programmes, health services, psychological assistance, etc.

The schools define the system

Eventually, we arrive at the 'micro-level' of the system, the school itself with its situation at the front line of the educational campaign. It is in the school that the most unique functions of the system operate. Here we can see some of the overt indicators of the system's aims.

Why are the teachers and students there? We can see who teaches and note the general level of preparedness to teach. We can also note the ways in which the echelons of the structure are serving the purposes of the teacher, who is, after all, on the front line also. We can often anticipate, by looking at the schools, what the system's aims are, and how it will achieve them, by seeing the kinds of materials available and how they are used. Further, we can see how teachers work and how other personnel function, who they are, and what their preparedness levels may be. We can also find out what children are considered to be, and what they really are. We can watch children in the classroom with a teacher in charge and ten minutes later watch the children outside the classroom.

We can also see the extent to which the community is visible and how its needs are being considered in the teaching. The school, as it functions, is not necessarily the equivalent of the national system nor can any single school be so considered. But the planner and the educator can recognize that local schools, taken in the aggregate, provide data which will represent the reality of the national system and its sub-systems. We could, if we wished, develop a composite of urban schools for one view and a composite of rural schools for another. We could then see how much overlap there is and where the extremes may turn out to be with regard to any single element. It is not necessary nor is it desirable to study a school system and its structures by spending 99 per cent of the time in the ministry offices because the schools can provide an aggregate of the system itself.
In the same way, we can also begin to relate the processes that we see in the schools, in the intermediate stages of authority which are above the schools, and at the ministry level, to the aims that we have been given, and ultimately to the outputs.

It is this successive, overlapping view of social components and forces, and of ensuing educational systems and operations which should facilitate and encourage study leading to necessary revisions and improvement.

Suggested additional reading

The following publications helped to stimulate the ideas presented in this paper. They contain additional and extended discussion.


