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Towards a political economy of educational planning¹

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It was not too long ago that one could still talk about planning in education with a good deal of confidence and on the basis of a reasonable degree of consensus as to what educational planning was and should be all about. It seems that both confidence and consensus have disappeared and given way to considerable doubt as to the utility and adequacy of educational planning as we knew it. We have come a long way from the planning euphoria of the late fifties and early sixties to the kind of scepticism that is reflected in Levin's statement that 'the process of educational planning is necessarily an exercise in optimism'.²

It is the contention of this paper that this progression from confidence to doubt and from consensus to disagreement reflects, on the whole, an international learning experience of considerable importance. Reviewing this experience will shed some light not only on the needs and possibilities for a somewhat different notion of educational planning, but also on the role of planning in the process of legitimating educational policy decisions.

It will be useful to begin with a brief retrospective on how educational planning came about, and how some of its major features became established in the effort to arrive at more effective strategies for the development of educational systems. This review will lead us to a number of assertions about what is problematic in the present state of educational planning and about where planning seems or ought to be in the process of moving. It will be argued that this new agenda in educational planning has profound implications for the training of educational personnel. Most important, however, will be how a different concept of educational planning will reflect upon changes in the relationship between education and politics. We will therefore conclude this discussion with some reflections on planning and legitimation in educational policy.

**Planning the future of education:
Some observations on the history of a concept**

ADOPTING EDUCATIONAL PLANNING

The history of educational planning has not yet been written, and it seems to be a matter of increasing urgency that somebody should start writing it, and writing it critically. To begin with, there is a need for systematically recording the various facets of a development which, over the span of some twenty or twenty-five years, has been a significant element in educational thought and action in a large number of countries. More important, however, there is a great deal to be gained from a rather thorough and critical analysis of this process, especially from the point of view of what factors contributed to the notion that education should and could be planned, and to the various ways in which this notion became translated into specific projection, anticipation, choice and action models for the guidance of educational policy decisions. I suggest that such an analysis, were it conducted adequately, would begin to tell us a great deal not only about the dynamics of the decision-making processes in education under a variety of socio-economic and political conditions.

This paper is not the place to indulge in this kind of a historical exercise. However, it will be useful to recall some of the conditions under which educational planning emerged and became a part of the development effort in education that was characteristic of many countries in the fifties and sixties. It will be difficult to generalize across a considerable variety of national situations, but there is enough commonality to show how some of the assumptions involved in those early developments affect very much a realistic assessment of the state and promise of educational planning today.

The range of considerations that led individual countries to adopt some form of systematic educational planning reached from the genuine intention to enhance the level of rationality of the educational policy-making process to the more or less mechanical reaction to an external demand that some form of planning would be a prerequisite for receiving foreign assistance for educational development. The line that separates these two kinds of motivations does not neatly coincide with the line between rich and poor nations, but it is obvious that developing countries were considerably more susceptible to the kinds of pressure which a number of bilateral and multilateral aid organizations were able to exert in demanding the establishment of planning

agencies as a means to anticipate (and, presumably, monitor) the expenditure of foreign aid funds.

In countries which were not so dependent upon outside assistance in the development of their educational systems, a somewhat different combination of factors led to the adoption of educational planning in one form or another. In the socialist countries of Eastern Europe, planning in all fields of social and human activity had already for some time been seen as the most adequate way for expressing and organizing the State's responsibility for the future well-being of society. Given the premises of full-employment policy and the ideological basis of the education-work relationship, education planning had become a natural ingredient in the overall planning instrumentarium for achieving as close a match between human resources and the needs of the production system as possible.

Compared with both the socialist and the developing countries the countries of Western Europe and North America have always had, some notable exceptions notwithstanding, a much more ambivalent relationship to the notion of planning in general, and of educational planning in particular. With the exception of France, where a strong etatistic tradition has manifested itself in the powerful role of the *Commissariat au Plan*, and of the developments initiated under the auspices of OECD's Mediterranean Regional Project in Southern Europe, planning effort in the field of education have typically been half-hearted, haphazard and notably ineffective. The development of secondary and higher education in the Federal Republic of Germany over the last ten years, which has led to the introduction of a *numerus clausus* in university admissions as the last resort in coping with the dramatic mismatch between secondary school production and university absorption, is a case in point.

Whatever, in the case of any given country, the specific reasons or driving forces behind the introduction of some form of systematic educational planning may have been, most instances reveal a certain number of assumptions not only about the nature of the planning process but also about the context within which it would operate. Without trying to be exhaustive, some of these assumptions may be cited and briefly discussed here. We will later argue that many of the problems which educational planning faces today have to do with increasing doubts about the validity of some of these assumptions.

ASSUMPTIONS ABOUT THE NATURE
AND EFFECTIVENESS OF EDUCATIONAL PLANNING

Most approaches to planning educational development have been predicated on the notion of human capital, i.e. on the role of education to contribute to economic development through fulfilling the manpower needs of the labour market. To plan education has tended to mean to maximize its contribution to the country's economic growth by assuring, preferably with maximum cost-effectiveness, an adequate supply of employable people. The notion as well as the practice of educational planning has thus been placed in the context of a causal relationship in which the development of education would ultimately contribute to greater economic prosperity, at least collectively and, ideally, individually as well. In the actual development of educational planning, the preoccupation with the manpower-producing functions of education has been such that it has effectively excluded from the parameters of planning any considerations related to other functions of education (which were lumped together under 'consumption functions' and put aside where 'serious' planning was concerned).

In practice, the vast majority of educational plans have been oriented towards a set of more or less reliable and realistic estimations of manpower needs, and designed in such a way as to bring the actual output of the educational system into as close an approximation of these needs as possible. The variations on how this was to be accomplished are considerable, but the basic rationale remains remarkably stable over time and across countries.

A second assumption had to do with the knowledge base on which educational planning was to rely. The implicit assumption in most educational planning efforts has been that both the baseline information on the present and the target information on the future can be ascertained with sufficient reliability to serve as an adequate basis for a realistic and valid planning operation. With regard to the present, planners have assumed that more or less aggregate numerical descriptors of age cohorts, student body, teaching staff, physical facilities, expenditure patterns, etc., provide sufficient baseline information. Similarly, information on the numerical targets to be achieved over a given period of time is generally deemed to be a sufficiently accurate indication of future reality; the manpower needs of the economy in five years, for example, are taken to be subject to sufficiently reliable estimation to serve as target for the educational planning effort.

If educational planning, as all planning and almost by definition, is predicated on the notion that the future is foreseeable or at least subject to reasonably accurate estimation, it also implies that the future is subject to being influenced and manipulated. Educational planning sees itself as an instrument not just for anticipating the future, but also for shaping it along lines specified in a country's major policy orientations. The assumption is that education is 'plannable', that the educational system responds to the plan and develops according to it. In other words, plans are not just seen as describing likely developments, but moreover as stipulating desirable developments, thus assuming not just the characteristics of forecasting, but of social engineering.

The assumptions that education serves as a motor of development, especially economic development, and that the future development of education is not only foreseeable but also manipulable are unevenly distributed across the varied landscape of educational planning that has unfolded in many countries of the world over the last twenty years. However, almost all initiatives in educational planning owe something to these basic premises, even though they have gone about implementing them in a wide variety of different ways.

Criticisms of educational planning

For a variety of reasons, educational planning has in recent years become the target of considerable criticism. For some, it has simply not been effective enough in solving the problems associated with educational development and expansion. Others base their doubts on more fundamental misgivings about the notion of planning a society's future in general, while still others see some of the assumptions and characteristics of the 'classical' notion of educational planning invalidated to the point where a major new departure appears needed. Varied as the criticisms are the proposed cures, which reach from doing away with educational planning in any form to a variety of suggestions on how to improve upon its conceptual and operational quality. A review of these criticisms will be a useful step towards reformulating some of the agenda of educational planning.

CONSERVATIVE BIAS

Educational planning has a tendency to reproduce, on an expanded scale, the existing educational system. Even where educational planning

has been, in a technical sense, successful, its main contribution has been to map out a pattern of development that would assure a more or less linear expansion of the status quo. Instances where educational planning has tried or even succeeded in bringing about major structural changes in the system, redistribution of educational opportunities, or qualitative reorientations in the educational process have been extremely rare indeed. It is obvious that the usually close association between the established economic and political order and educational planning transfers the former's vested interest in the status quo to the latter, thus creating a planning process in which, more or less consciously, a preservation and expansion of the existing conditions is seen as the least threatening option. This conservative tendency on the part of planning and planners in education has been particularly critically noted in situations where there is a strong drive for educational and broader social reform, and has been in marked contrast with a good deal of rhetoric on the important role of educational planning in bringing about educational reform.

HIERARCHICAL NATURE

Most of the time, educational planning is a process which operates from the top down, i.e. educational plans are formulated and their implementation initiated at the central level. The involvement of lower levels in the process is minimal and mostly limited to the provision of statistical input on the status quo and some aggregate indications of desired growth for the subunit (province, state, etc.). On the whole, educational planning in its prevailing manifestations does not have a record of involving institutions and persons who are not part of the administrative hierarchy, such as teachers, parents, students, local communities, etc. The process of planning presents itself in most countries as a strictly intra-administrative matter and is conducted according to criteria and operational rules that are characteristic of bureaucratic organizations.

PREOCCUPATION WITH GROWTH

Born at a time when the expansion of educational systems was an overriding policy concern, particularly, though not exclusively, in developing countries, educational planning has acquired a rather strong preoccupation with the problems of growth in education. Rates, patterns and conditions of growth used to dominate the agenda

of educational planning; the regional conferences on educational development in Africa, Asia and Latin America with the assistance of the United Nations economic commissions and Unesco in the early sixties (Addis Ababa, Karachi, Santiago, etc.) provided particularly instructive examples of this trend.

Given the extremely limited degree to which formal educational opportunities were (and continue to be) available to the people in developing countries, this preoccupation seems understandable enough. However, in the overall development of educational planning as an instrument of educational policy, this strong orientation to growth has led to the neglect of two important other concerns in the development of education: (a) the distribution of educational opportunities across different regional or social subgroups of the population; and (b) the reorientation and reorganization of educational systems in both structural and substantive terms.

It is significant that, at the recent Conference of African Ministers of Education in Lagos (January 1976), these issues of distribution and reform commanded a great deal more attention than the question of overall expansion, marking a shift in policy priorities to which educational planning, still very much under the influence of a more aggregate, growth-oriented notion, seems as yet ill-adapted.³

THE NEGLECT OF IMPLEMENTATION

Ever since there has been a systematic concern with educational planning, there have been different meanings of the term. Most of these meanings, however, have focused on the design of plans, and have led to various strategies, methods and techniques by which plans for educational development could be designed. More often than not, the task was considered complete when the plan was drawn up, with a great deal of confidence placed on its inherent ability to survive the rough waters of the real world of implementation.

The sad and alarming truth is that a substantial portion of educational plans never went beyond the paper on which they were written or printed. A further portion did make it to the stage of implementation, but was in the process altered or watered down beyond recognition, leading the educational system in reality far away from what the planners had intended.

Clearly, the conspicuous failure of so many plans to materialize in reality is due to a complex set of factors. However, one of the most important of these factors has been the tendency on the part of

many planners and planning agencies not to devote adequate attention to the problems of plan implementation and to the conditions that would facilitate or limit the possibilities for implementing the provisions of the plan. By the same token, the evaluation of the planning effort has received much less attention than it deserves, thereby depriving educational planning of the benefits to be gained from an ongoing, careful monitoring of the planning process and of the obstacles it encounters.

LIMITED PERSPECTIVES

The history of educational planning has shown how closely its origins and developments have been linked with considerations of economic development, especially through the notion of human capital. While this linkage has given educational planning a relatively coherent frame of reference and a relatively manageable set of methods and techniques, it has also limited in important ways the perspective which the educational planner has tended to bring to his task. The planner's habitual preoccupation with maximizing the contribution which education could make to the formation of trained manpower and, thereby, to economic growth (leaving aside for the moment whether that was a realistic expectation) has had a tendency to make him oblivious to possible other functions of education which are not necessarily or not exclusively economic in nature. Such considerations as the role of education in preserving and improving health, in keeping alive and fostering cultural and artistic traditions, in sensitizing people to the various threats to the environment, etc., have played a distinctly secondary role in determining the agenda and strategies of educational planning. Even where these issues are in turn affected by important economic considerations (as in the case of ecology), the rather single-minded orientation of educational planning to the notion of human capital has prevented the development of a more comprehensive and realistic view of reality in which the interrelations between economic interests, social structure and political power would lead to developing a more germane and transparent frame of reference for educational planning.

OVERSIMPLIFYING CAUSAL RELATIONS

The most fundamental criticism of educational planning, however, has to do with its underlying, more or less explicit model of developmental causation. As we have pointed out, the prevailing notion of educational planning is predicated on a dual assumption: (a) that changes in education will lead to changes in the rest of the social system and most notably to improvement in the individual and collective conditions of economic well-being; and (b) that educational systems respond with a certain degree of reliability to the intentions, specifications and forecasts contained in educational plans.

Both assumptions are undue and dangerous simplifications of a much more complex reality—a reality which is as yet only imperfectly understood by educational planners. With regard to the relationship between education and economic development, greater realism would call for acknowledging both the primacy of the economic elements in the relationship and the contingent nature of whatever influence education retains. The distribution of economic wealth and its power correlates in the political realm determine to a considerable extent the possibilities and limitations for educational development. Instances where educational policies run counter to the established pattern of economic and political interests are hard to conceive and even harder to find: in the relationship between education and economics, education is by and large the dependent rather than the independent variable.

This basic nature of the relationship notwithstanding, education retains the potential for exercising a certain amount of influence over development processes in the society at large. Even though, for example, education by itself is not capable of producing equity in an otherwise and especially economically inegalitarian society, it is none the less capable of making its own contribution to an overall development policy geared to maximizing equity in the distribution of economic wealth and political power. In order to make such a contribution, however, it is important to understand the overall dynamics of development policies in the society at large, and to derive from such an understanding a sense of what kinds of educational policies are feasible and possible.

Towards a new agenda in educational planning

The shortcomings of educational planning in its present form are serious, but they do not invalidate the notion of a systematic effort at anticipating and planning the future of educational systems altogether. They do lead us, however, to engage in a serious reconsideration of some of the assumptions and perspectives associated with educational planning, and to attempt at least a tentative formulation of a more adequate profile of educational planning. We will begin to sketch such a profile in this section. While the points to be made here represent a good deal of experience and thought, they are primarily meant to be for discussion, as a device to accumulate and consolidate gradually the future agenda of educational planning. Since the criticisms just expressed have served as the major points of departure in this mapping effort, we will take up these themes again, but not without once again pointing out that they are really not more than different aspects of one and the same dilemma which educational planning faces.

PLANNING AND REFORM

Given the forces of political and institutional gravity that have made educational planning typically more of an agent of maintenance than of change, it will not be easy to reorient both the processes of planning and the attitudes and perspectives of planners towards a more favourable disposition to change and reform in education. However, given the strong drives in many countries for reform, there is ample reason for trying to mobilize planning as an instrument of reform.

Ideally, planning and planners should have a catalytic role in the process of educational development and reform, in the sense that they would be alert to emerging or existing tendencies towards change in the society at large and attempt to identify ways in which education could 'tune' into such tendencies. If there is a strong move under way towards a more equitable distribution of goods and amenities in the society, or even if such a move is only in the process of emerging, the alert planner would be able to seize on the occasion and momentum and both utilize and reinforce it by appropriate plans for enhancing the equality of access and performance in the country's educational system.

This kind of alertness requires on the part of the planner a great deal of rather sophisticated awareness of the society's potential

for reform and change. This awareness in turn depends both on fairly solid research and on an extraordinary ability to communicate with the various layers of reality that make up a society. Since it is extremely difficult to communicate with reality from within a strongly hierarchical-bureaucratic structure, one important prerequisite for a more reform-oriented form of planning will be the de-bureaucratization of planning structures in the direction of more participatory and transparent processes for the formulation of planning targets and implementation strategies.

In other words, the move towards a more reform-oriented form of educational planning has a knowledge element (in the sense of understanding better the forces that facilitate or hinder change in the society at large) and a structural element (in the sense of opening up the planning process to possibilities of communication that would allow for a much more realistic and reliable assessment of the potential and feasibility of reform than would be the case in more bureaucratic structures). The two are obviously closely interlinked, but they also depend very largely on the determination of planning personnel to break out of their accustomed cognitive and structural boundaries.

EDUCATIONAL PLANNING AS PROCESS

The existing structural arrangements for educational planning are typically, as we have discussed in the previous section, of a highly centralized and hierarchical kind, which makes, among other things, the utilization of educational planning for educational reform so difficult. By the same token, educational planning also has the characteristics of a specific activity with rather distinct boundaries in time and space: a particular administrative unit begins work on an educational plan at a certain point in time, and concludes its work some time later when the design of the plan has been completed.

By contrast, it would seem to make sense to see educational planning much more as a *process*, as an ongoing enterprise with no particular boundaries in time and with a much more diffuse organizational structure. This kind of process would allow for more intensive and more continuous interaction with the reality that is likely to be affected by the outcomes of the planning processes, i.e. parents, students, teachers, communities, etc., and would lead the planner to a more concrete and valid awareness of the needs of the society which the plan purports to serve. In structural terms, this

would mean that the process of planning should be disseminated much more widely throughout the system, that planning involves 'articulators' at the local level ('barefoot planners', as somebody has called them) as well as a special effort to open up and keep open communication channels between the different levels of the planning effort.

Needless to say, the results of a planning process conceived in these terms are probably much less tidy and clear cut than those we used to expect from more conventional, centrally organized planning arrangements. Indeed, a conflictual model will probably fit this participatory/transparent process much better than the kind of consensual models with which we have tended to describe bureaucratic decision-making processes. There may also be an important arbitration function required to channel some of the conflictual inputs into a manageable set of alternative propositions for policy action. All of this does seem, however, an acceptable price if it were possible in this way to arrive at a planning process which would not only be more transparent, but also more accessible to those who will be most affected, through commission or omission, by its outcomes.

PLANNING AND EQUALITY IN EDUCATION

Expanding education does not necessarily make access to it and success in it more equal, and we have seen that the distribution of educational opportunities is rapidly moving up beside the growth of educational systems on the agenda of educational policy. At the same time, we have to recognize that inequalities in societies are a function of a politically more or less sanctioned pattern in the distribution of economic wealth, and that educational systems tend to reinforce and reproduce these patterns rather faithfully.

While there is thus a great deal to be said for overcoming, through a more distribution-oriented approach to educational planning and especially the planning of compensatory measures, some of the existing disparities in the supply of education, there is only a very limited role that education can play in contributing to an overall reduction of existing economic and social inequalities in society. In order to maximize that role, however, it becomes an important task for the planner to have a much better understanding of both the nature and determinants of educational disparities. This understanding is part of the diagnosis which has been a much neglected element of educational planning, and should provide some answers to

the questions of why particular groups and regions in a country are particularly disadvantaged when it comes to education. What factors contribute to disparities in the supply of educational services (quality of teachers, of facilities, etc.)—and to what extent do disparities in supply lead to disparities in educational outcomes? Clearly, here is another aspect of planning where the conventional knowledge base of planning is highly inadequate, and where a major research effort is required to identify both the obstacles to a more equitable educational system and the conditions under which education can begin to make its modest contribution to greater justice in the provision of educational services and success.

PLANNING AND IMPLEMENTATION

In a later part of this article, we will be talking a little more about one peculiar function that educational planning has served in a surprisingly large number of cases over the years. I am referring to what I would call the alibi or surrogate legitimation function of educational planning, where the very act of drawing up a plan (any plan, it sometimes seemed) served as an end in itself.

In that kind of a situation, implementation never became a concern since the plan was never designed with the purpose of being implemented, but simply in order to be shown as proof that planning had been done. Negotiations over foreign assistance in education have often been the scenario for such manifestations, but the use of educational plans as a façade behind which developments take place that bear no resemblance to the plan is by no means limited to the international assistance context.

While these instances deserve a closer look, we exclude them at this point and rather proceed on the assumption that plans are made in order to be implemented. Here we are concerned, as we have indicated in the previous section, with the difficulties of bringing plans over the threshold that separates design from implementation. Usually, a country's capacity for designing plans far exceeds its capacity for implementing them, especially where, as in most Third World countries, implementation depends on outside resources. Where this is the case, probably the single most important obstacle in the way of implementing otherwise well-designed plans are the constraints associated with the procurement of outside resources. Time and again, it proves extremely difficult for a country in need of such resources to obtain them with sufficient degrees of freedom to allow

for their use along the lines specified in the plan. More often than not, resources are provided for certain kinds of activities and not for others, thus playing havoc with the ideally integrated nature of a coherent plan for the development of education.

In other words: the linkage between the design and the implementation of plans for educational development and reform can only overcome its present tenuous status if a country acquires the kind of implementation capacity that puts it in command of such resources as the realization of the plan requires. As long as implementation has to satisfy not only the agenda specified in the initial plan, but also a set of other agenda associated with the origin of the external resources, it will never lead to a coherent piece of policy.

BROADENING PERSPECTIVES ON THE FUNCTIONS OF EDUCATION

We have shown and, to some extent, criticized the close relationship between educational planning and the needs of the labour market. While it is understandable that educational planning has developed primarily in response to the need for input forecasting in labour economics, the exclusive nature of that relationship has left educational planning with an unduly narrow perspective on the functions of education.

In this connection, it is instructive to assume, obviously for the sake of argument only, that educational planners and labour economists had somehow failed ever to meet each other, and that educational planning had developed primarily as a means to forecast and maximize the contribution of education to the preservation and improvement of health. It is obvious that this kind of an objective would have led to a substantially different approach in planning education:

Education would have been planned with different target parameters; the overriding concern would have been to reach as many people as possible with simple, comprehensible messages on hygiene, health and nutrition, and to have a small professional training component built into the system for the training of specialists at different levels of competence.

Distribution criteria for purposes of educational planning would have included emphasis on areas or groups with particularly poor nutritional habits, epidemic or contagious disease problems, etc.

Target populations for purposes of educational planning would have

been much more broadly defined, including adults as well as pre-school-age children.

Measures of the success of educational planning would not have been so much the satisfying of manpower needs, but measurable improvements in the state of health and nutrition.

Educational planning would have shown from the outset a much greater concern with questions of educational content to make sure that the educational message reflected the health needs of people within their specific environment, etc.

Obviously, this is idle and rather unrealistic speculation, although it serves to show how much our thinking about educational planning is affected by the one basic assumption that, as far as educational planning is concerned, the main function of education is to satisfy the manpower needs of the labour market—an assumption which, as we have seen, has become increasingly problematic on both methodological and substantive grounds.

‘ENLIGHTENED HUMILITY’ IN EDUCATIONAL PLANNING

At the end of our list of criticisms in the previous section, we had taken educational planning to task for being somewhat naïve and not sufficiently critical with regard to some of the basic assumptions about the relationship between education and development and between planning and education. Throughout the short history of educational planning, it seems, we have faced a problem of exaggerated expectations: too much developmental salvation was expected from education, and too much educational salvation from planning. Whatever impact education is capable of having upon development, and planning upon the development of education, is likely to be realized much more effectively on the basis of a more realistic assessment of these relationships and of their limitations.

What needs to be advocated, therefore, both at the conceptual level and in the context of educating and training politicians and planners, is a sense of ‘enlightened humility’ with regard to what educational planning can accomplish. The enlightenment must come from a substantially improved understanding of the dynamics inherent in the political economy of development, and of the ways in which these dynamics circumscribe, condition and limit the role of education, planned or otherwise, in the development process. The reality of the distribution of economic wealth, political power and social status in

a society becomes one of the most important elements in the knowledge base of educational planning, and it will require a major and sustained research effort to keep this knowledge base up to date.

The recognition of the political context of educational planning will also facilitate adopting a wider variation in the notion of educational planning. Depending on the political context, educational planning can assume one of a variety of roles with regard to change: at one end of the continuum, educational planning can be one of the prime instruments for maintaining the status quo, reflecting an overall conservative tendency of the political power structure. In a different political context, educational planning may become one of the means for gradual, step-by-step reform of the status quo, while political systems committed to radical and profound changes are likely to see educational planning as an important instrument in accomplishing this task. Obviously, each of these variants in the role of educational planning will develop a substantially different set not only of basic assumptions, but of different strategies and methodologies as well.

It is also part of the realism of the educational planning effort to be more acutely aware of the importance of external elements and influences in planning the development and reform of education. We have already discussed the difficulties that arise for coherent planning from the dependence of many developing countries on outside resources with their often divergent rationales, conditions and criteria. Clearly, the more important aspect of this problem has to do with rethinking and reshaping the ways in which nations deal with each other, and especially how rich nations deal with poor nations. It is important none the less for those involved in educational planning to be cognizant of these constraints as a first step towards minimizing their effectiveness and arriving at more endogenous forms of planning. The deliberate reduction in their dependence on foreign advisers and experts on the part of many developing countries is an encouraging development in this respect. What remains is the sometimes less conspicuous presence of other foreign elements in the form of textbook publishing interests, educational technology hardware and software interests, foreign curriculum models, etc. The notion of self-reliance in educational planning is as yet far from reality in many countries, but the political will to achieve it is unmistakable.

Some implications for training

We can keep this section rather short since we have already made a number of points which are directly relevant to the task of training future personnel in educational planning. In fact, each of the major criticisms which we have raised against educational planning in its present form entails some important needs for change in the conception and practice of training. By way of summary and emphasis, however, some points may bear being taken up once again.⁴

PLANNING AND RESEARCH

We have previously attached particular importance to the changing and expanding knowledge needs in educational planning. These knowledge needs relate both to educational (in the sense of better understanding and documentation of existing situations and trends) and extra-educational areas, with the 'dependency' of educational planning on contextual conditions making this latter area particularly critical.

Training educational planners to cope with these knowledge needs involves a dual task: first, they will have to be made aware of the important degree to which the development of educational systems is conditioned and determined by the state of the social system as a whole, and of the fact that educational development and reform are limited to what the existing dynamics of social structure, political power and economic wealth permit. Second, they have to acquire the skills needed to analyse these forces, their strengths and inter-relationships, or at the least to understand and critically assess the analyses that others have provided at the planners' instigation. This would involve particularly an appreciation of the methodologies underlying research in the major disciplines, an understanding of different paradigms or ideologies of research, and an exposure to exemplary (in the good and the bad sense) pieces of developmental research.

PLANNING AND COMMUNICATION

If our diagnosis of the lack of transparency and communication in much of contemporary educational planning is correct, improving his willingness and ability to communicate becomes one of the major

challenges to the educational planner of tomorrow. Assuming a participatory/conflictual model of educational planning along the lines discussed elsewhere in this article, planners will assume critical linkage functions in a much more diffuse and elaborate pattern of communication and interaction. Most important perhaps is their role in facilitating the upward flow of communications that originate at the base of the system, and in articulating the needs, interests and aspirations of the people and groups who are going to be affected by the outcome of the planning process.

How does one train people to communicate? Clearly, the willingness and readiness to engage in a communicative interchange is an indispensable prerequisite, and nothing but a rather patient and sustained resocialization effort among habitually non-communicative bureaucrats will achieve that willingness. It would facilitate this process, however, and at the same time build up communicative and interactive skills, if one were to introduce into the training of educational planners a good deal more work in small group techniques, interaction modes and other methods dealing with the problems of interpersonal and intergroup behaviour.

PLANNING AND POLITICS

It should be now be sufficiently clear that the key to the notion of educational planning that we advocate is the recognition of the essentially political nature of the planning process. In doing this, we are moving a long distance away from the conception of the educational planner as a technician, even though our definition of the planner continues to include a substantial set of technical skills. Coping with the political nature of educational planning requires of the planner not only an understanding of the political processes on which educational planning depends, but also the identification of his own role in these political processes. If, as we have argued elsewhere, it is possible for educational planning, depending upon the political context within which it operates, to be committed to the maintenance of the status quo or to the radical change of existing social structures, then it would seem incongruous for those centrally involved in educational planning to be aloof and 'neutral'. The educational planner thus faces the challenge of being a 'political man' in a highly technical environment, and while the training programme that prepares people effectively for this task has yet to be invented, an important ingredient in any training programme should at the very least be

the 'un-learning' of some of the technocratic habits and attitudes associated with conventional, apolitical notions of educational planning.

Planning and legitimation

What does this discussion of educational planning have to do with the legitimation issue in education? In some respects, the issue of planning and the issue of legitimation are virtually the same: planning the implementation of educational policy and ascertaining the legitimation of that policy are dependent upon each other. If we propose to change the notion and the scope of educational planning, how will such a change affect the processes and criteria for legitimation in education?

The kind of educational planning to which we have addressed a good part of our criticism illustrates one way in which the planning and legitimation have been seen as related: educational policies claim part or all of their legitimacy on the grounds that they are the result of careful and systematic planning. Educational decisions based on planning are in this perspective considered more legitimate than those which are not; at least implicitly, the planning process becomes a source of legitimation for educational decision-making.

We are inclined to consider this an inadequate treatment of the legitimation issue, especially since it only relocates the question: If planning serves as a source of legitimation for educational decisions, then where does planning obtain in turn its legitimation? To be sure, there are theorists who, in the broader context of the legitimation debate conducted especially among German social theorists⁵ over the last decade, advocate the notion of 'legitimation by procedure'.⁶ However, there is every reason to think that such a formalistic notion of legitimation tends to lock the policy-making process, in education as elsewhere, irrevocably into the political and economic status quo.

It would seem, then, that the search for sources of legitimation in education has to go beyond the procedural qualities of the planning process. In an overall sense, of course, we can relegate the legitimation question in education to the realm of general political or governmental legitimation and consider educational decisions, at least those made by agencies and representatives of governments, legitimate by virtue of the power base of those who govern, be that base the results of popular elections, the charisma of an anointed sovereign or the instruments of military control.

However, this recourse to the general political legitimation process may be in need of a complementary argument which would establish a more specific source of legitimation for decisions and policies that affect particularly the field of education. We propose that such an argument may well proceed from the postulate, developed elsewhere in this article, of a participatory/conflictual model of the educational planning process. If such a model were capable of providing a wide articulation of needs, aspirations and interests on the part of all those affected by education, and would lead planning to become a means of aggregating this wide articulation into alternative courses of policy action, then we may have at least one model for a specific legitimation process in education that might be complementary to the broader processes of political legitimation. It is clear that such complementarity between general and specific legitimation can only occur if there is a basic correspondence between the legitimation models: it would be naïve to expect a legitimation process in education to function on the basis of a participatory-conflictual model of educational planning if the political system at large derives its legitimation under the terms of an essentially hierarchical/consensual model.

Samuel Bowles has subtitled a recent paper of his 'Educational Planners at Bay',⁷ echoing the scepticism of Levin's impression that educational planning is an exercise in optimism. Given the prevailing state of educational planning and the assumptions that have guided it over the last two decades or so, both are essentially right. At the same time, countries will continue, for whatever reasons, to undertake more or less systematic efforts to anticipate, project and plan the future of their educational system. The degree to which this is likely to be more than an 'exercise in optimism', however, will depend on the ability and willingness of planners (and of those who advise and train them) to accept a political mandate in planning education and to recognize the political conditions, boundaries and consequences of their tasks. What we will need, in short, is further probing into the political economy of education as a basis for moving from enlightened humility to a critical theory of educational planning.

Notes

1. This article was prepared for a National Conference, The Legitimation Crisis in Education, organized by the Centre for Administrative Studies in the Faculty of Education of the University of New England, Armidale, N.S.W. (Australia), from 26 November to 1 December 1977, and is published here with the kind permission of the organizers.

2. Henry Levin, *The Limits of Educational Planning*, Paris, IIEP, 1977. (Unpublished paper.)
3. Unesco, *Education in Africa in the Light of the Lagos Conference (1976)*, Paris, Unesco, 1977.
4. See also: International Institute for Educational Planning, *Changing Needs for Training in Educational Planning and Administration*, Paris, IIEP, 1977.
5. See: Jürgen Habermas and Niklas Luhmann, *Theorie der Gesellschaft oder Sozialtechnologie*, Frankfurt, Suhrkamp, 1971; and Jürgen Habermas, *Legitimationsprobleme im Spätkapitalismus*, Frankfurt, Suhrkamp, 1973. (English edition: *The Legitimation Crisis*, Boston, Beacon Press, 1975.)
6. Niklas Luhmann, *Legitimation durch Verfahren*, Neuwied, Luchterhand, 1969.
7. Samuel Bowles, *Class Conflict, Uneven Development, and Schooling: Educational Planners at Bay, 1977*. (Unpublished paper.)

Research into the art of teaching in the U.S.S.R., and ways of applying its findings in practice

This article deals with the art of teaching and not with education as a whole. The art of teaching, concerned as it is with the theory of education and instruction, is a most important branch of the science of education. Unlike methods of instruction for individual subjects, the art of teaching is concerned with general teaching principles independently of the specific content of different subjects. Research into the art of teaching makes wide use of, but is not identical with, general, educational and developmental psychology. The art of teaching concerns itself not with the mental characteristics and processes studied by psychology, but with the mutually interconnected activities of teaching and learning and with the principles underlying the educational process itself.

Scientific, technological and social progress is making greater and greater demands on general education for the young. These demands made by present-day living find expression in the official documents of the Party and the government, which define the work of all educational establishments, including general schools, and lay down basic guidelines for the improvement of all their educational activities.

The complex problems of education and instruction can be solved successfully only with the help of science. The art of teaching is concerned with the theoretical principles needed in order to find an effective answer to questions about the content, methods and organization of teaching.

Let us look at some of the more important aspects of research into the art of teaching as it touches on these questions.

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Content of education

In recent years, a great deal of work has been done in the U.S.S.R. on improving the content of education in schools; and new curricula, syllabuses, textbooks and method manuals have been drawn up.

It was by no means easy to define the content of education accurately. In the process, different tendencies came into conflict and various views were expressed. The experience of introducing the new syllabuses has now confirmed the correctness and soundness of the chief function attributed to Soviet schools, which is to achieve the harmonious and balanced development of the young. The basic notion of balanced and harmonious development has made it possible to avoid one-sided education, the improvement of certain subjects at the expense of others and the belittling of arts subjects.

Improvements in the subject-matter of education are however, still being made, and work is continuing at the theoretical and practical levels. Efforts are being made, above all, to complete one of the most important tasks in the improvement of education, namely to make education reflect the modern achievements of science, technology and culture more fully and more faithfully, which means raising the theoretical standard of the subjects taught in schools. To do this, it is particularly important to apply the theoretical knowledge already learnt to the study of subsequent sections of a course and to establish links between allied subjects. This calls for the definition in each subject of the principal ideas around which the substance of the entire course is arranged.

These principles have had a substantial effect on the structure and volume of the content of almost every subject. It was borne in mind, in this connection, that in introducing schoolchildren to the main ideas of science, the deductive approach to the presentation of material is important since this accustoms a child from the very start to thinking by categories of science.

This principle enables the material to be considerably condensed and provides a greater depth of knowledge through the assimilation of fundamental concepts. The principle has been put into effect in a number of courses. The problem of superfluous material has not yet been fully overcome, however, and it has not been possible to exclude everything that is out of date or of secondary importance. Work is now being done along these lines.

K. D. Ushinsky, the eminent educationist, remarked that man's past experience, which has been presented as a scientific system and

which has made up the basic content of education, should be reviewed and adapted to the current aims of education. The need for 'educational adaptation' is still relevant today. An important teaching problem is therefore the correlation of science at its present-day level with the subject being studied. It is also important to define the methods for arranging subjects. A certain amount of serious research has been carried out in this field in recent years and has shown that it is both possible and necessary to achieve in school a significant raising of the theoretical level of the material learnt by the pupils; it has also shown that teaching can be so arranged that even the youngest children are able to grasp abstract concepts and acquire the rudiments of theoretical reasoning.

The names of L. V. Zankov, D. B. Ėlkonin and V. V. Davydov should be mentioned in this connection. All three, by various paths, came to the conclusion that the cognitive activity of pupils should be stimulated and that the length of primary education should be reduced from four years to three. The country-wide transition to a three-year primary-school syllabus has now been completed in all schools in the U.S.S.R. V. V. Davydov, in his book *Vidy Obobsćenija v Obučenii* (Forms of Generalization in Teaching), argues that the whole system of teaching must be redirected away from the inculcation of rational and empirical thinking in children towards the development of scientific and theoretical thinking. Research on this is still continuing.

In recent years, Soviet educationists have been giving considerable attention to devising practical ways and means of providing polytechnical education at a level consonant with contemporary conditions and with the requirements of the future socio-political and economic development of our society.

Polytechnical education, as a part of education in general, must familiarize students with the scientific bases of modern production, teach them general working skills that can easily be applied to new situations, and develop their capacity to use initiative in dealing with the technical, technological, organizational and economic problems associated with production. In this way, polytechnical education makes an appreciable contribution to the balanced and harmonious development of the children and provides a means of tackling important social problems such as overcoming the substantial differences existing between physical and intellectual work and making work into a source of joy and inspiration rather than a heavy burden.

Much research has been done by Soviet educationists into the

scientific foundation of the content of polytechnical education. The activities of workers in the most challenging occupations were analysed, and the results were used to construct an ideal model of the polytechnically educated person. This is now serving as a guide to the content of polytechnical education in general schools. There are five groups of comprehensive production-process principles that are general in modern industry and have become universal, viz. the principles of mechanical engineering, electrical engineering, automation technology, organization and economics. Polytechnical courses in school cover these principles together with the corresponding abilities and skills. Polytechnical education is provided through a study of the bases of science, through handicraft instruction, through various out-of-school activities and through the pupils' socially useful work.

A study of the basic principles of the natural sciences gives the pupils a knowledge of the laws of nature and of ways of using them in production. The same is true of social laws and principles, about which the pupils learn through studying the fundamentals of the social sciences (history, the humanities and economic geography).

In their basic scientific study, the pupils also learn to measure, calculate and draw, which are skills needed by the vast majority of production workers. They further learn to cope with the various tasks and problems associated with the application of scientific laws to production.

This however, does not exhaust the content of polytechnical education. Many of the laws of technology itself and the more common rules of production organization and economics cannot be taught among the basics of science without disrupting their internal logic and specific characteristics. Their place is in the theory sections of the manual-training courses.

Productive work introduces the pupils directly into the system of organizational and economic relations so that they acquire knowledge of the organization and economics of production as well as experience of production relationships. Helping to solve organizational and economic problems and participation, as far as possible, in work-efficiency, design and development activities and in socialist competition help to build up a team spirit and develop a constructive attitude to work.

Teaching and teaching methods

In recent years, Soviet educationists have devoted a great deal of attention to research on active, stimulating teaching methods and to their introduction in school.

To make teaching more scientific, it is extremely important to acquaint pupils with the scientific methods available to them. This is important in order to deepen their understanding of a given area of knowledge and to lay the foundations for scientific thinking, to give them a scientific approach to the understanding of reality and to form a truly scientific outlook. Such is the aim of the problem method of instruction, whose nature, significance and place in education have been the subject of a number of studies (M. N. Skatkin, I. Y. Lerner, M. I. Makhmutov, A. M. Matyushkin and others).

The interest taken in the problem method is not fortuitous. The scientific and technological revolution is changing the nature of work in industry. Automation is taking over the monotonous processes with no variety which people find the most exhausting, and human effort is being employed for the more complicated and responsible functions of adjusting, managing, checking, regulating, promoting efficiency and so on. These functions call not only for broad general, polytechnical and specialized knowledge but also for well-developed abilities, especially the ability for independent, creative thinking. As science comes into industry, a greater and greater number of rank-and-file workers are being involved in basic research activity and the application of science to the world of work.

The only way to bring out a pupil's creative potential is to plunge him right into the midst of creative activity. No amount of description or even demonstration of what other people do can impart creative ability. The communication of predigested knowledge by the explanation and illustration method, however well presented, will not develop the pupils' creative thinking nor their ability to learn by themselves.

To involve pupils in creative activity, what is needed is a system of cognitive tasks requiring investigation. The research referred to earlier has led to progress in laying the educational foundations for the development of independent cognition. This research has formulated principles for the establishment of a system of cognitive problems and has shown ways of teaching pupils how to solve them. These principles have been expressed in practical terms for a number of school subjects, e.g. history, literature, Russian language and

economic geography, which represents a definite step forward along the road to the preparation of a set of cognitive problems for each individual subject.

Problem instruction can be carried out by one of three methods, viz. by presenting facts in problem form, by organizing exploratory discussions and by using the research method. These three methods have a common feature in that they all teach through the medium of problem solving, but they differ in the degree of independence required in the pupils' investigative activities. It is greatest in the research method, where the pupil's cognitive activity is almost on a level with scientific research work.

In the exploratory discussion method, less initiative is required of the pupil, who carries out only certain parts of the research process with considerable help from the teacher.

When presenting facts in a problem form, the teacher conducts the investigation, providing the pupils with an example of reasoning based on scientific proof. The pupils merely follow the steps in the teacher's reasoning and his train of thought as applied to the problem.

Despite the great educational value of problem instruction for providing pupils with consciously assimilated knowledge and developing their cognitive independence, Soviet educationists do not apply it to all situations, nor do they set it in opposition to traditional methods of education such as the explanation and illustration method or the reproductive method. Every method is necessary for its own specific educational tasks and cannot be replaced by other methods. The ideal should be to use them in harmonious combination.

Work on how to stimulate creative thinking is closely associated with a thorough study of the instructional aspects of shaping a communist world outlook in pupils, a matter of utmost importance for our teaching and our schools. Forming a view of the world is, of course, a highly complex and many-sided process that concerns all areas of education, including research into the art of teaching.

The essential unity of teaching and upbringing finds its clearest expression in the process of forming a view of the world. In that process, the pupils, under the teacher's guidance, continually add to their experience increasingly correlated ideas which are of significance to the world outlook, while viewing that experience in the light of those new ideas which lead to fresh correlations. This process of forming a world outlook depends not only on the teacher's actions but also on the pupils' activity. No world view or range of ideas can be regarded as having been finally formed until it is the pupils' aim

to apply those ideas, on their own initiative, to the parts of reality within the grasp of their consciousness.

The process of cultivating a communist view of the world in pupils is a creative one because it is inseparable from character formation. In developing ways of including pupils in creative activity, the art of teaching really does, by the very logic of the movement of scientific thought, become associated with the moulding of a communist world outlook. The need arises for clearer answers to such questions as the range of knowledge concerning the world outlook that should be covered during secondary education, the criteria and methods needed to assess the level reached in the development of the pupils' world outlook, the various stages of its formation within the educational process, the best means of forming, within that process, each of the essential elements of the total world outlook, and so forth.

In recent times, significant changes have taken place in an important area of educational activity—the use of teaching aids. Whereas for centuries knowledge was imparted almost exclusively through the teacher's spoken word, textbooks and a fairly limited range of graphic aids, it has become possible today to concentrate the transfer of information by the use of technical devices such as the cinema, radio and television.

It is not merely a matter of showing more pictures of things. A raising of the theoretical level of education leads to an equivalent increase in the importance of symbolic representation. This includes various formulae and graphs that can catch the pupil's eye not only by being written up on the blackboard but also by appearing on film and television screens. All this makes it possible to give pupils large amounts of scientific information, in concentrated form, within a shorter time.

This leads to a number of questions from the teacher's point of view, such as how to check the educational effectiveness of these aids, or concerning sets of teaching equipment for the study of individual subjects, sections and courses in the syllabus, etc.

The complexity of using technical aids deserves a special word. Even the most extensive use of these aids may not give the necessary results if they are applied unsystematically on an *ad hoc* basis. The aids themselves, in their totality, should constitute a system and also be an integral part of the general system of education. A set of aids is a combination of interrelated educational resources that in accordance with the requirements of scientifically based teaching makes it possible to carry out the work of education with the greatest measure

of success. The aids cannot, of course, replace the teacher; their function is to assist him. The individual components of a set of aids are linked to the course of teaching as a whole by a unified content and by the method of application.

Let us take just one example of the extent to which the advisability of using given technical resources is bound up with teaching conditions and educational tasks.

In investigating the use of television in the teaching of history, a research worker started from the assumption that the direct use of dramatized television broadcasts (television plays) during lessons would in any case encourage a broadening of the repertoire of historical productions, would stimulate the pupils and would give them a deeper understanding of the material and help them to assimilate it. In practice, however, it was found that the use of television broadcasts and television plays of this kind, re-enacting specific historical events, did not always produce satisfactory results. The objective was not achieved where there was a need for profound interpretation of an event and the establishment of its logical links with other historical phenomena.

The researcher was therefore faced with the problem of how to devise a system of television broadcasts of various kinds and combine their use with traditional methods of history teaching.

The problem of devising sets of visual teaching aids and that of the integrated use of technical teaching resources is being tackled by a team working at the research institute for school equipment and technical teaching aids of the U.S.S.R. Academy of Pedagogical Sciences.

To make pupils more active in assimilating the knowledge presented to them, use is made in teaching of all kinds of independent activities as well as elements of programmed learning.

Soviet educationists, while recognizing the educational value of programmed learning, do not support the attempt to substitute it for all other methods of teaching. What we are talking of here is the combination of programmed learning with traditional methods of history teaching, not the opposition of programmed learning to such methods.

Organizational forms of teaching

Forecasting the future development of schools, many foreign educationists propound the total individualization of teaching as an ideal

to be striven for. To this end, great hopes are pinned on programmed learning and on the use of computers. It is held that each schoolchild, working individually, will advance at his own pace, quite independently of his schoolmates, and that this development of individualization will render collective work unnecessary so that the class-lesson system will disappear. Ideally, it is suggested, efforts must therefore be directed at replacing class lessons by the individual learning system.

No one will argue with the need in teaching for an individual approach to each student. Disagreement arises when the question is whether individual learning should completely replace the classroom lesson system, or whether the aim should be to achieve a harmonious combination of individual, group and class study. Our answer to that question is that the class-lesson system has stood the test of time, not only on economic but also on educational grounds. As research carried out by Soviet educationists has shown, it offers a number of advantages, e.g. it ensures organizational clarity and order in the teaching process; it allows the personality of the teacher to exert an ideological and emotional influence on the class; it promotes its own kind of intellectual competition in the collective acquisition of knowledge; and it gives scope for the development of a team spirit in the course of the pupils' joint work and interpersonal contact. All this testifies to the need to preserve the class-lesson system.

At the same time, however, we should not close our eyes to the system's shortcomings. One of these is the practice of gearing progress to the level of some 'average' student. There are two categories of pupil who suffer most from this: the weak, who cannot keep up with the general progress of the class and become backward pupils who have to spend a second year in the same grade; and the strong, who are forced to mark time and do not make full use of their potential. Educationists are now working in close co-operation with teachers to overcome these disadvantages. Studies are being made of various combinations of class, group and individual forms of lesson for different stages of school education. Particular attention is also being given to different forms of collective study by pupils, such as mutual help and the mutual checking of work.

Another thing that will help to make education more effective is the establishment of a closer relationship between classroom and out-of-school activities. In this respect, the relationship between classroom information and the information that pupils are now obtaining more and more from other sources, such as books, newspapers, the cinema and television, is a matter of great relevance.

Tremendous opportunities for an individual approach to pupils are provided by the optional subjects that have been available in schools in our country for some years. The curriculum for Soviet general schools now includes periods for the close theoretical and practical study of various subjects of the pupils' choice, and this is directly connected with the transition to secondary education for all, to be completed shortly. Of course, a unified and compulsory common core is necessary for the all-round education of young people. At the same time, however, secondary education must also lay the foundations of the future specialist's training. Optional subjects establish a definite bridge between general education and a young person's future specialization.

Optional subjects are also particularly important for the development of the innate abilities, interests and aptitudes of children and young people. Studying subjects they have chosen for themselves develops in schoolchildren a liking for them and an urge, together with the ability, to supplement and widen their knowledge on their own initiative. This aspect of optional subjects means that they provide an important way of training pupils to educate themselves after they leave school and to use their free time intelligently to achieve the balanced development of their intellectual and physical potential and of their scientific, technical and artistic creativity. Experience has already shown that the most successful optional subjects are those conducted like seminars. Within the general system of optional studies, an important place is occupied by independent classroom work and homework using books. In optional courses, increasing importance is being attached to practical work in the laboratory, which helps pupils to learn on their own by way of experiments. The way that optional studies are conducted needs further scientific analysis and improvement.

Particularly intensive efforts have been made in recent years to devise new ways of organizing studies rationally, both in theory and in practice, in connection with the need to develop the pupils' creative thinking and cognitive independence. The fact that education is being confronted by new problems naturally means that new ways of organizing teaching work are called for which solve those problems. The aim of each lesson should correspond to the general demands made on education. The organizational aspect of a lesson must, in turn, be in keeping with its purpose, the nature of its content and the teaching methods.

In the past, a certain type of teaching process became established in

which the teacher's role was to communicate set information and subsequently to check that it had been learnt, while the pupil's role consisted of memorizing and reproducing the information communicated by the teacher and set out in the textbooks. This also left its mark on the way teaching was organized. The majority of lessons followed an identical pattern, most being divided into four parts: the oral testing of knowledge, the presentation of new material, consolidation and homework. This arrangement has come into conflict with the new demands made on education by present-day living. In the practice followed by the best teachers, a start has been made on replacing the routine lesson structure by more flexible forms of organization. In a situation where the aim of teaching is to impart knowledge as an instrument of cognition and reform, to give instruction in scientific methods and ways of solving problems, and to inculcate skills and abilities for investigative work, the universal application of any kind of external structure becomes unacceptable.

At the same time, however, the lesson structure cannot be amorphous and haphazard. Each lesson must have a clear-cut structure which follows the logic of that lesson, with a sharp transition from one part to the next in keeping with the lesson's purpose and with the principles of the teaching process. These parts of the lesson, however, are not the traditional questioning, study of new material, consolidation, etc., in a fixed order, but steps towards achievement of the aim of the lesson, i.e. the mastering of its subject matter. The composition, size and order of the steps themselves can be modified depending on what is being taught, the aim in view, the principles of the learning process, the composition of the class and the teacher's methods.

The structure of the problem lesson, for example, as shown by the research carried out by M. I. Makhmutov, is composed of the following elements: (a) revision of knowledge, abilities, and skills already learnt; (b) creation of problem situations and the setting of problems; (c) intelligent exploration and solution of a problem (suggestion and verification of hypotheses); (d) verification of the solution to the problem and, if necessary, recapitulation of the way the solution was arrived at.

The improvement of teaching as a whole and of its organization is bound up with finding solutions to the problems of optimizing the teaching process.

An important contribution to education science has been made by the research on the optimization of the teaching process that has been

carried out over a number of years by Y. K. Babansky in the laboratory of the Schools Scientific Research Institute at Rostov. This research defines optimization of the teaching process as a system of measures that produces maximum results with the minimum expenditure of time and effort on the part of both teacher and pupil. The central idea underlying this system was the attempt so to arrange the teaching process that the educational effects would coincide as much as possible with the pupils' learning abilities and would contribute to their further development.

An educational effect is not produced instantaneously but passes through a number of steps and stages. Starting with the mechanism whereby an educational effect is produced, Babansky defines teaching influences as the plannable, organizable, adjustable, verifiable and reckonable influences exerted on pupils by teachers with the aim of achieving specific results in their education. The teaching influence cycle accordingly comprises the following: planning, tailored to suit the characteristics of the whole class in question and of the individual pupils; organization, adjustment and correction; checking and assessment of results. If even one of these is not given its due weight, the teaching influence does not lead to the optimum results. In practice this means, for example, that teaching influences must be very carefully planned at all levels, from that of the school as a whole down to the preparation of individual lessons and out-of-school activities. Having a properly organized system of measures for the optimization of education means that the process whereby learning activity is directed by the teacher becomes transformed into a student-controlled process comprising the following: independent planning of activities, self-organization, self-regulation and self-verification of results.

In addition to unity of influences on the pupil's activity, awareness and socialization, unity of content and objectives must be established in the educational process. This is achieved by unity in solving the problems of education, upbringing and development by means of an optimum combination of educational principles, forms and methods. In this connection it is extremely important to see the dialectical unity and contradictoriness of individual educational principles and methods. If, for example, the principle of scientific character cannot be accommodated with the principle of accessibility, optimum educational results will not be obtained.

A narrow application of the systematic and sequential approach principle could well bring about a return to the educational standards

that (together with other factors) once led to the rigid structure of lesson elements that we have already mentioned. In an actual learning situation, the best way of applying each of the principles and methods is determined by: (a) the specific educational objectives and tasks; (b) the characteristics of the actual material for the subject in question; (c) the characteristics of the actual class and their learning potential; (d) the conditions in which these tasks are to be carried out.

This concept was evolved and tested in a large-scale, progressive experiment carried out by teachers of the Rostov province, and will undoubtedly make its mark on the theory and practice of the rational, optimum structuring of lessons.

This survey of teaching problems must include one important area of scientific knowledge that has a considerable influence on the effectiveness of educational research and hence on the successful solution of the problems mentioned above. We refer to teaching methods and the methods of educational research. Work in this field in recent years makes it possible to raise the level and effectiveness of research into the art of teaching, which is a vital prerequisite for the accomplishment of the tasks now confronting teaching science and practice.

Applying the findings of research in practice

The essential *raison d'être* of any science, including education science, is 'knowledge in order to foresee, and foresight in order to act'.

The conclusions reached by education science are being put into practice, and the way they are depends upon the nature of research.

Methodological research has no immediate practical application. It develops the logical and methodological means to be applied in fundamental theoretical and applied educational research so as to make it more effective.

The findings of fundamental theoretical research are also not directly applicable in practice. They serve as a basis for applied research and for the preparation of standard curricula, syllabuses and textbooks. The basic research mentioned earlier, for example, carried out by L. V. Zankov, V. V. Davydov and D. B. Elkonin provided the basis for the change in elementary education and was used in working out the new content of the syllabuses and textbooks for classes one to three.

Applied research produces practical conclusions and recommendations that can be used in the day-to-day work of education. The most specific material for practical application, however, is the studies which plan the teaching and instructional process in detail, providing direct assistance to teachers in their day-to-day work with the pupils.

Teorija i Praktika Samostojatel'noj Raboty (The Theory and Practice of Independent Work), a recently published book by O. Nilson, director of the Institute of Education of the Estonian SSR Ministry of Education, clearly sets out the complex path that leads from initial idea to its practical realization. Using the findings of fundamental educational and psychological research, the Institute undertook a composite study of the problems of independent work by pupils. This led to the preparation and experimental testing of sets of work books for forty-five subjects. The books were then printed in the necessary quantities and supplied to all teachers. It then became possible to put into practice in all the Republic's schools the system of independent work by pupils.

This report has given only a brief survey of a number of problems on whose solution the successful development of Soviet general education largely depends. Even this brief survey, however, provides an idea of the complexity and variety of the tasks with which education is confronted. Much has been accomplished, but there remains a great deal of hard work to be done.

Economic crisis, universities and students in Western Europe

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Within the space of a decade the situation and characteristics of university students in Western Europe and North America have undergone a dramatic and, to some, a troubling change. If Herbert Marcuse, Henri Lefèvre and others could describe the university of the 1960s as the centre of the 'great refusal' of the consumer society or as that 'free space' within which the contradictions of advanced corporate capitalism could be exposed and attacked, it is now possible to describe this same institution in the 1970s as the centre of the great confusion, if not the great disillusion, and as space which seems to have been readily reclaimed and mastered by the élites it once threatened. While there are recent signs of a resurgence of student activism in certain Western European settings, the issues chosen and the forms of mobilization utilized often reflect a confusion and despair unknown ten years ago. Commitment to profound social change, to support for Third World liberation movements, to an alliance between students and the working class has, in certain dramatic instances, given way to a narrow defence of the social privileges and expectations of students alone. Throughout Western Europe and North America, a seemingly apolitical concern for environmental issues has eclipsed the broader and more profound issues which characterized the student movements of the 1960s and early 1970s: society, economics and politics.

The university itself, which underwent remarkable reforms and expansion only a few years ago, now finds itself a choice target for budget cuts which reduce course offerings and the access of qualified students to higher education. The major educational gains of the 1960s, usually the direct result of protest and confrontation, including the democratization of access to the university, increased student participation in university governance, more 'relevant' and

socially concerned curricula, have been eroded, if not simply withdrawn without setting off significant student mobilizations.

Interestingly, this perhaps overly dismal portrait of the university and its constituents in the 1970s must be seen against the background of the enormous strides made by traditional working-class parties and progressive movements within certain European nations. In these countries, the militancy and charisma of the New Left have given way to an often dramatically reformed and renovated 'Old' Left. Criticisms of certain models of socialist development, programmes and slogans such as '*autogestion*' and worker democracy and, most importantly, the immediacy of demands for fundamental social and political change, all of which characterized the *gauchisme* and the extra-parliamentary leftism or New Left of the past decade, now find themselves reflected in the historical and traditional political forces of the Left: Communist and Socialist parties which actually represent the working-class base of their societies, a claim which never could have been made by the student movements of the 1960s. If 'sixty-eight' evokes the image of dramatic, if short-lived, *contestation*, 'seventy-eight' may well signal a quieter, more practical and deeply profound revolution in European society and culture. While future historians will have the final say in this matter, I think it is evident that the youth movements of the 1960s, however utopian or short-lived, played a role in the renewed vitality of the traditional formations of the Left in many Western European countries. Sixty-eight and seventy-eight are moments of the same general historic dynamic within the evolving structure of Western European society. Much of the student activism which seems curiously 'missing' from the university of the 1970s can now be found within the youth and student organizations of Socialist and Communist parties in many countries. Much of the intellectual ferment which characterized the campus ten years ago has moved from the university and university-oriented movements to the inner councils of these same political parties in the same countries.

The fact remains, however, that the university itself and many students reflect no seeming continuity with the 1960s at all. For significant groups of students, even within those Western European societies where the Left has grown enormously in recent years, the 1970s have been years of quietude and quiescence. In other countries where no such significant political changes have intervened between the 1960s and the 1970s, the apoliticalness and silence of the present student generation are even more striking. And issues similar

to those which mobilized massive student solidarity and protest ten years ago are hardly lacking in the world today. Somehow South Africa seems far more distant from Western European and North American campuses at present than South-East Asia seemed only a few years ago. The domestic and foreign policies of certain governing élites and of many multinationals are no less obvious and controversial today than they were in the recent past. Yet the university, its teachers and its students seem to have withdrawn from the struggle. Even with the university itself a target for corporate domination and political control by conservative forces in some countries, student and faculty protest and resistance have been remarkable for their weakness or absence.

What has mobilized the political parties of the traditional Left in many countries but has also demobilized and depoliticized the university almost everywhere in Western Europe and North America is the same obvious and objective factor: the chronic economic crisis of the 1970s. Characterized by parallel and simultaneous increases in unemployment and the cost of living, the crisis has resulted in austerity in public budgets, deep cuts in allocations to higher education, and severely reduced prospects of professional careers for university-trained youth. White-collar occupations, particularly in the public sector, were often the first and hardest hit job categories. The university, often considered a social luxury and, since the 1960s, frequently seen as a source of political dissidence, was singled out for particularly harsh treatment.

It was, and is, argued by certain political and economic managers that:

The university prepares people for careers which are presently closed to new employment: teaching, research, and administrative positions in large public or private structures.

Increased access to higher education, won in the 1960s, has debased the quality of degrees and flooded the job market with applicants who are both unqualified for employment and too numerous to be employed even if they met the standards of prospective employers. The university merely serves to raise the expectations and lower the potential social productivity of the working-class and lower-middle-class students who gained entrance after the reforms of the 1960s.

Fundamentally, the argument of many of those in a position to make educational policy is seductively simple. Higher education is seen as preparation for specific careers, and reduced job possibilities in

those careers means reduced allocations to higher education. In other words, the university is seen exclusively as a form of job training, and its functioning is linked directly to the fluctuations of the economy and the 'white-collar' job market. Furthermore, the economic crisis is usually presented by business and government as a natural phenomenon, closely akin to earthquakes or tidal waves, which must run its 'natural' course with austerity in public services, including higher education.

The logic of certain policy-makers, particularly in the field of higher education, is, in fact, contradictory. It can be demonstrated, I believe, that the much decried economic crisis has been used as a pretext for educational policies which aim to prevent or reduce the threat of a resurgent student activism in the 1970s, which seek to reinforce or reconstruct the social consensus that existed before the explosion of the 1960s (at least among those relatively privileged social groups with access to the university), and which are designed to provide the existing economic system with manpower and womanpower trained for needed technical and managerial tasks without any 'unnecessary' education in such potentially troublesome disciplines as sociology, history, political economy, philosophy and literature. Briefly, task-oriented training is to replace education, which, in its best sense, should provide critical social tools for the citizen.

While bemoaning the 'over-supply' of university-trained white-collar and professional workers in their economies, educational policy-makers (many governments, numerous corporate managers and, of course, certain influential private foundations), have undertaken the most ambitious post-secondary-school development policy seen in this century. The remarkable boom in the 'community college', the 'technical college', the *instituts universitaires de technologie* and their local equivalents throughout the capitalist world indicates that the economy has continuing needs for trained people. Certain political and economic élites would prefer, however, to train their potential manpower and womanpower themselves and avoid the tainted atmosphere and dangerous content of university education. While pillorying the university for its overpopulation and 'over-popularization', a process of lowered investments and standards over which they themselves presided, many such policy-makers further eviscerate the content and aims of higher education by constructing a parallel system of institutions which offer little more than vocational training for technical and middle-management positions.

The aim of such a strategy is evident: to restore the university to

its role as educator and, therefore, replicator of the existing élites while offering not very high 'higher education' to the lower middle and working classes. Just as the living standards of workers and white-collar workers have been eroded by inflation, while profits have increased in key economic sectors, expectations (and the level of political consciousness) are to be lowered for those of modest social origins by offering them a modest form of post-secondary education leading to modest jobs (with little hope of advancement to genuine administrative responsibilities) at, of course, modest rates of pay.

Such a strategy, with its considerable initial expenses of constructing a wholly new system of schools, reveals important social pressures which policy-makers cannot avoid but which many hope to direct along lines which seem safe for the status quo. First, the demand for higher education continues to grow throughout Western Europe and North America in spite of the economic crisis and loudly proclaimed lack of employment opportunities for graduates. Education—and the more the better—is a deeply embedded cultural value in our societies and not only as a form of social advancement. Knowledge is considered a positive good in itself. It increases the quality of our individual and collective lives. It helps us understand, perhaps master, the world around us. It permits us to participate consciously and fully in the life of our society and allows us to view myths and lies for what they really are. Second, the very logic of the developed, industrial economy requires highly trained people at all levels of production and administration. The economy cannot dispense with more and more highly educated working classes—both 'blue' and 'white' collar—without unacceptable losses of productivity and efficiency. Because a highly educated work force will produce more, but may expect more and could demand more for itself, many governmental and corporate élites would prefer to find that higher level of education which provides maximized productivity and minimized expectations and militancy. One of the political uses of the economic crisis, from the point of view of certain governments and business élites, has been to construct such a post-secondary system and fill it by dangling the bait of employment after graduation.

Other political uses involve more direct attacks on the university itself. By increasing the fees and living expenses of students, by reintroducing the *numerus clausus* and by other techniques designed to reduce open access to the university, certain governments and private authorities have created the conditions for a 'quiet purge' of the academy. This not only involves the obvious elimination of social

and ethnic groups which only recently have begun to enrol in reformed universities and now find that the means for continuing these reforms no longer exist. By abruptly cutting back demand for teachers at all educational levels and for professionals in almost all aspects of government and social services, certain policy planners have succeeded in shifting student enrolments from the broader, more humanistic and less 'practical' faculties which prepare students for teaching and other forms of public service to more technically oriented studies which feed more or less directly into the private economic sector. This phenomenon, of course, closely parallels the emphasis on new technical colleges, totally outside the university.

Within the university, this creates fierce competition for grades, distinction and even academic survival among students in all disciplines. The demand for admission to medical, law, and business faculties (which offer some degree of remunerative employment after graduation) far outstrips the number of places available. Once in such a faculty, students are subjected to a continuous weeding-out process which places them in a constant fear for their professional future and pits them against each other for often arbitrarily and falsely limited jobs after graduation. No one can argue, for instance, that Western Europe or North America has a sufficient number of medical doctors or of 'health delivery systems', yet medical students are often in constant competition with each other for the 'best' residences and jobs.

It would be equally false, I believe, to argue that Western Europe and North America can be satisfied with the present number or quality of primary-school, high-school and university teachers. Yet here policy-makers have almost convinced us of the existence of an unabsorbable glut of teachers. They point to decreasing birth rates and other 'natural' factors (like the economic crisis) without ever pointing to chronically large and inefficient class sizes in primary and secondary schools or to educational systems which provide maximal numbers of teachers and expensive facilities for the children of the privileged and minimal per pupil expenditure for the modest and the poor. They never point to declining reading or mathematical aptitudes among virtually all secondary-school students in some countries as an argument for more teachers. No, indeed! Some suggest that television has reduced collective I.Q. or, and I note this with alarm, others present statistical arguments to 'prove' that ethnic minorities are biologically doomed to lower I.Q. scores.

Despair and confusion are most evident in those faculties and

disciplines which traditionally provide the education of teachers, scholars and broadly prepared civil servants. Given the limitation of jobs after graduation, one must be incredibly adventurous, confident, or stubborn, to embark on a career in the humanities or even many pure sciences. Only the very best will find work in their chosen fields and, even then, the work may be part-time or poorly paid. And in these fields the 'quiet purge' is most evident. By freezing or reducing the number of teaching and/or research jobs, some governments and private governing boards have succeeded in eliminating known dissidents, usually the young, from teaching posts by firing for 'economic reasons' those who were already employed. This is particularly interesting at present since many young teachers were undergraduates or graduate students active in the movements of the 1960s. At least one government in Western Europe has explicitly defined such a politically active past as reason enough for barring a candidate from teaching or government service.

The mood among university students is largely one of passivity and fear. When anger has broken out in the form of student uprisings, the high level of violence has often been matched by a confusion of political aims. The naïve counter-culture 'politics of happenings' is invoked from the 1960s, but the despair of the 1970s is the dominant motif. Nostalgia, an escape from the present, has become the dominant cultural mode on the North American and Western European campuses with which I am familiar. Fifties music and sixties slang and drugs are much in evidence, with few indications that the majority of students are involved in inventing cultural forms appropriate to the present crisis. Interestingly, the 1930s, a similar era of economic crisis and social struggle, remain forgotten except by those who remain active in the politics of the Left.

The crisis has, in fact, exposed the ambivalent position of students as a social group and the ambiguity of the university as a social institution. A major political force in the 1960s (a period of seeming prosperity and expanding prospects), students could act on behalf of distant peoples and even more distant ideals. At present, they seem incapable of defending their most basic educational and economic interests. Many hesitate to participate actively in the pursuit of goals espoused by Communist and Socialist parties committed to fundamental social changes. Many are content to withdraw from political engagements and live fundamentally private and isolated lives, at least until graduation, unemployment, or underemployment become unavoidable facts.

The reasons for this curious comportment, especially against the background of the 1960s, are both very simple and remarkably complex. The simplicity lies in the lower-middle-class and bourgeois origins and aspirations of most students. These factors create evident obstacles for direct political commitment to the organizations and parties of the working class; so much for absolutely orthodox Marxism. The social origins of today's students help us understand the hesitations, the confusions and the passivity of students in an economic crisis which draws class lines with stark clarity.

The complexities lie in the historical problem that students, or significant minorities of students, have crossed such class lines in the past and in similar conditions of economic and political crisis; during the great depression, in the anti-fascist resistance movement, in the immediate post-war period, and again, but this time as critics of traditional formations on the Left as well, in the 1960s. Why not now? And why not with equally dramatic numbers and equally dramatic results? The answers, I believe, can be found in the specific circumstances of the present and in the ideological defences which have been erected since the experiences of the 1960s.

Far from being idealistic and sympathetic onlookers to economic crisis, students are now directly affected by unemployment. Unlike the responses of the 1930s, many governments, for a variety of reasons, are making no effort to cope with the crisis by offering alternative employment to the unemployed and particularly the young, or by expanding higher education to absorb the potentially unemployed. With white-collar bourgeois roots and aspirations, students are suddenly being treated as mere white-collar proletarians, or worse, as well-educated members of the reserve army of the unemployed. They resent their elders who are employed and they are particularly suspicious of those trade unions which defend the job security of their members, with the apparent result of closing off the job market to the young. They are young people, often highly trained and highly proficient, whose first experience of responsible adulthood is to discover that they are economically useless. They have also discovered that the institution in which they worked so hard for grades and honours is also economically useless to them. The university, and the educational system as a whole, can no longer employ even its most brilliant graduates because of budget cuts and hiring freezes.

As a collectivity, students have been broken up by the competitive pressures of 'doing better than the next guy', in order to have a

chance on the job market. As one of several social groups victimized by unemployment and chronic underemployment, students have been marginalized, perhaps self-marginalized, by the fact that their youth places them at an apparent economic disadvantage to their elders of all social classes.

Capable in the 1960s of wielding theories and ideals with much panache and some precision, students are having more difficulty with the hard realities of the 1970s. No one is blameless for their passivity in most circumstances and their confusion when they mobilize as a distinct social category. The educational system and particularly the university bear a considerable responsibility. University-bound students are early withdrawn from the practicalities of life—including any experience of manual labour—and taught that school life is somehow apart from real life. They are taught that they will inhabit a different social universe than most people in their societies, and that it is their right and privilege to do so, upon successful completion of their studies. Even worse, the university, reflecting dominant ideology, has long argued that its principal value was its economic function of providing qualified personnel for the needs of business and government. It could only protest feebly when job shortages led to budget cutbacks.

The university is, of course, an institution subject to the dominant political, economic and ideological forces in its society. Not only does it faithfully reflect the split between intellectual and physical labour characteristic of our economic system, it also represents the parcellization of function peculiar to our societies. Its function is, almost exclusively, that of educating the young, rather than being open to the permanent education of all ages and social categories. Education itself is seen as a form of pre-professional training, providing general and specific 'skills' which are 'marketable'. Even the freedom of inquiry and communication which is supposed to reign within the university's inner city is rarely tolerated when it leads to social and political action. Cut off—by social function, status, tradition and ideology—from the practical, productive life of society, the university has become that agency of State or private capital which is specialized in the selection and training of élites. As such an agency, the university has co-operated in the social policies of economic crisis: restricted access to higher education, failure to institute or carry forward the reforms won in the 1960s, the lowering of social expectations among working-class and lower-middle-class students, and the 'quiet purge' of the educational system.

The most prestigious knowledge factory for the job market, the university responds to economic crisis in much the same way as any firm or productive unit and often with the far greater precision of a governmental agency pursuing a set policy. Students are taught that their formal education and their intelligence are necessarily superior to what is learned in the work place and experienced in real life. Under the stress of cutbacks and unemployment, they learn that they are individual economic units in Darwinian competition with each other for good grades, distinction, and the few jobs which remain available. The result is an attitude of drift and resentment. Drift is experienced because university-educated youth expects, but cannot find, employment commensurate with its interests and academic achievements. Resentment is experienced because neither the university nor society as a whole appears prepared to confront and solve the practical problems of unemployed graduates and because others, who entered the work force before their graduation, seem to close off any possibility of useful and interesting work. Unemployment prolongs a juvenile status of dependency on family and of economic uselessness, despite the hard work and commitment required by successful studies.

The problems of the educated unemployed and of higher education cannot be solved separately or piecemeal. They must be solved soon, however, if goals of democratic progress and social change are to be achieved in our societies. Only a democratized and dynamic university can educate large numbers of people to a sophisticated and practical appreciation of such broad social objectives. Only a reformed university can begin the process of breaking down the barriers between intellectual and physical labour and start the project of providing lifelong higher education to society as a whole. But because the university remains a reflection of its society and because students remain socially formed, only social change can lead to educational change.

The risk of maintaining the current state of affairs, with the resulting despair and resentment among educated youth, is a noxious political dynamic set off by a sense of uselessness, lost status, and confused identity among socially uprooted youth: the politics of fear and anger.

Elements for a dossier

Development and education in Latin America

What kind of development and which education?

Stages in the process of international co-operation in the region

Activities in the field of technical co-operation, as developed in Latin America and Caribbean countries, have been carried out within the context of the educational doctrines formulated during various meetings in the region. The Regional Education Seminar held in Caracas in 1948 marked the beginning of the gradual development of a policy on many different aspects of education, consonant with the reality and the needs of the Latin American continent.

It would take too long to enumerate the many events that helped to determine broad policy guidelines for solving what were considered to be the priority problems of education. Mention should, however, be made of the following: the four meetings held in Lima during April and May 1956, particularly the Second Inter-American Meeting of Ministers of Education; the Conference on Education and Economic and Social Development (Santiago de Chile, March 1962); the Conference of Ministers of Education and Ministers responsible for Economic Planning in countries of Latin

America and the Caribbean (Buenos Aires, June 1966); the Conference of Ministers of Education and Those Responsible for the Promotion of Science and Technology in Relation to Development (Venezuela, December 1971); and the Meeting of Experts on the Implementation of the Recommendations of the Venezuela Conference (Panama, February 1976).

The basic studies prepared for the above meetings by Unesco and the other international organizations taking part sought to highlight the more acute educational problems facing the region, along with the principal trends in education over a given period of time. The final reports of the meetings suggested theoretical guidelines and alternative policies for dealing with the problems studied.

*At the same time, certain other works published by Unesco provided an extensive panorama of education as it was at the particular moment of publication. These studies, which were normally prepared by the Unesco Regional Office for Education, included: *La Situación Educativa en América Latina (The Educational Situation in Latin America) (1960); and Evolución y Situación Actual de la Educación en América Latina (Evolution and Present State of Education in Latin America) (1976). The former dealt specifically with education at the primary level, the latter with the system as a whole; critical analyses were made of the progress achieved and the main shortcomings of the various systems were singled out.**

Vicente Lema (Bolivia) and Angel D. Márquez (Argentina). Latin America and Caribbean Section, Operational Programmes Division, Education Sector, Unesco.

Although nearly all the meetings approached educational problems from the point of view of development, some were specifically devoted to the study of the relationship between education and economic and social development.

The international organizations which financed the many educational projects in the region, and Unesco, in its capacity as Executing Agency, sought to work within the framework devised by the seminars, conferences and meetings referred to above. Likewise, activities financed from Unesco's own funds were developed according to the same broad principles, which, as is logical, were reflected in the wider context of the resolutions adopted by various international conferences and the General Conferences of Unesco. Therefore it can be affirmed that the technical co-operation offered by Unesco was based on well-documented prior knowledge of the state of education as a whole as well as of specific situations and the particular problems which had to be solved.

Reflection over the last thirty years concerning the general problems of education in the area, and the action stemming from it, form a process with several distinct stages. These stages may seem arbitrary, like all attempts to delimit historical periods. None the less, they are useful for the purposes of this article, in that they lend coherence to the material discussed.

In an initial stage, certain basic conceptual elements were developed and the necessary information for tackling the most urgent problems was compiled: the extension and improvement of primary education, literacy training, teacher training, etc. It was a stage in which the need to cope with immediate practical difficulties of vast proportions overrode theory. Therefore most educational operations developed at this time were conceived from a 'pedagogical' standpoint, which is to say that they largely revolved around the question of educational practice, representing only one aspect of the actual situation.

The second stage dates from the Inter-American Seminar on Overall Planning for Education arranged by the Organization of American States

(OAS), and Unesco (June 1958, Washington D.C.). At this point narrow and fragmented educational conceptions began to fall away; efforts were made to integrate education in planning. Planning was seen as a means of associating problems in education with the wider solution of social, cultural, political and economic issues.

But it was the Conference on Education and Economic and Social Development (Santiago, 1962), that pioneered systematic, in-depth examination of relations between socio-economic factors and education. Analysis was made of demographic and socio-economic aspects of the situation in Latin America that had a marked influence or made heavy demands upon education. The role of educational systems in social and economic development was defined. Guidelines were formulated to aid the countries involved in devising and executing educational projects deliberately linked with plans for economic and social development.

A significant milestone in this second stage was reached at the Conference of Ministers of Education and Ministers Responsible for Economic Planning in Countries of Latin America and the Caribbean (Buenos Aires, 1966). This Conference recognized 'the still inadequate degree of integration of educational planning in general economic and social development policy and planning', and made various recommendations aimed at widening the scope of methodological studies 'particularly in relation to the criteria governing the incorporation of the manpower aspects in general planning'.

Despite the intentions expressed at the various meetings concerning the linking of education with socio-economic development, it has to be recognized that the quantitative (and, in some cases, qualitative) progress achieved by educational systems in the region had relatively little to do with the pattern of economic and social development.

In some cases, educational policies applied on a sectoral basis not only failed to contribute anything to the solution of the overall problems of development but even created new difficulties along with structural imbalance.

At the fifteenth session of the Economic Commission for Latin America (ECLA, Quito, 1973),¹ it became clear that certain concepts needed to be reconsidered in the light of development and that renewed emphasis should be laid on its social objectives. The document known as the Evaluación de Quito stresses the social objectives of development, as well as its qualitative aspects and the integral character of the strategies needed to achieve these ends.

Likewise, Unesco recognized, in the 1976 publication referred to above, that at the beginning of the 1970s there was a need in Latin America for a retrospective evaluation of development measures so far accomplished. According to this study, the fact that despite these efforts fundamental social and economic problems still remained—indeed in some cases they had grown even more acute—called for an in-depth review of the whole concept of development which had so far prevailed, as well as of the policies and strategies that had been applied.

This clear awareness of the need to revise the entire concept of development, to stress its social objectives, to draw attention to the integral nature of the strategies for its achievement and to adopt a unified approach meant that the role of education had to be redefined in terms of the development process.

These were the background elements that led to what may be termed the third stage in the process of reflection in Latin America concerning education and co-operative international action to promote it. The Conference of Venezuela (1976) and the launching of the project on Development and Education in Latin America and the Caribbean (at the end of 1975), constitute the two basic elements of this third stage, which began so recently and which is still under way at the time of writing. It is a stage which can draw on wide experience, but which bears an enormous responsibility. The stages characterized by statements of theory have now been superseded; their results were far from encouraging: what has to be done during the present stage is to leave past errors behind and to devise overall strategies which will generate the kind of education

and development that the peoples of the region want and need, and to which they have a legitimate right.

Educational policy and 'human resources'

In the second stage referred to above, in which the link between education and development became more systematically established, the factor of 'human resources' took notable precedence. The approach adopted was that of the economist, and education was viewed simply as a means of training human resources for development, as a factor of production. Clearly, this approach did not originate in Latin America nor was it exclusively applied in the region. Since 1960, when the Americans Schultz, Becker, Mincer, Demminson and others established the bases of a new economic science—the so-called economics of human resources—and other investigators were formulating a new discipline, which may be defined as the economics of education, educators, teachers and professionals in the science of education have been witnessing, with little hope of reversing the trend, what might be called the 'economicization' of education, i.e. a loss of, or insufficient regard for, the human dimension in education and a form of technocratization: in a word, the dehumanization of education.

This technocratic view of the relationship between development and education, and other approaches that tended to concentrate on the contribution of education to economic growth (e.g. the relationship between education and gross national product), have been gradually losing ground. It was realized that the connections between education and economics are not simple and linear, as had been somewhat naïvely postulated. There was growing awareness of the complexity of the question of the relationship between education and economic and social development. It was recognized that there was a clear need to extend study of theories concerning the influence of education on

the work force, on social mobility and stratification, income distribution, consumer participation and social well-being, etc. What is more, it was seen that even if levels of production in the region rose, and even if other economic indicators showed massive progress, the gap between the hegemonic or central nations and the fringe or developing countries continued to widen. Within the latter countries less privileged groups continued to live at an enormous disadvantage in comparison with the minorities which concentrated economic power in their own hands and had the highest income level. Certain basic and essential doubts are bound to arise when these facts are faced. The Director of UNDP for Latin America and the Caribbean, G. Valdes, summarized these doubts not long ago in two questions: Development for whom? Development for what?

To paraphrase Valdes, 'the reality of today shows that most of the benefit is absorbed by a minority sector which, because of education and training, and financial, technological and commercial factors, has established itself in the bustling metropolitan centres of the world, and its activities have no driving effect in improving the conditions of the majority'. But this reality is unacceptable, and consequently we must insist on finding ways to transform it.

The answer to the second question is complicated, because it concerns the type of society and civilization one wishes to create. What kind of development is humanity in general, and the Latin American region in particular, trying to attain? What kind of society, what kind of man, and therefore what kind of education and culture? These are the leading questions that are taxing intellectuals, politicians and educators indeed all men of sensibility in Latin America.

The international organizations that are committed to co-operation for development find themselves impelled to go deeper into this issue and seek answers which can give a new purpose to their operations, making them more effective, more equitable and more compatible with the high principles of humanity which presided over their creation.

Objectives of the Development and Education project

The ultimate conviction of the international organizations was that the whole issue of development and its relationship with education should be reconsidered. The strictly economic focus must be abandoned and the problem must be approached with a full appreciation of its many facets and dimensions, if technical and financial co-operation was to be consonant with the expectations of the people and achieve the desired impact.

The efforts to clarify the problems of education and development made by educational planning services in several countries of the region, by the Unesco Regional Office for Education, ECLA and other regional and national organizations, were seen to be insufficient. The systematic study of so vast and complex an issue could not be approached as just one more task among many others; it required the formation of an ad hoc group which would be closely linked to national research groups or to organizations which would undertake searching analysis of specific situations in each respective country. Hence the idea of a project exclusively dedicated to the study of development and education.

The aim of the project would be to promote systematic reflection on relations between education and society, and explore various possible alternatives in development policy that would cover education and other social aspects. Moreover, it would have to constitute a basis for dialogue among those responsible for development policies, at both the political and the technical levels, which would make it possible to situate the role of education in the development process. Consideration would be given not only to the intrinsic functions of education but also to the particular place it occupies as the most dynamic social sector in Latin America today, a source of cultural changes and a means of fostering rational behaviour; this applies just as much to the preparation of the individual for his task as a producer as to his role as a citizen.

The aim was that the project should promote

reflection on the relationship between education and society, by comparing the prevailing tendency towards educational expansion without any matching social development, with unified conceptual planning of the whole development process, having regard to specific conditions in each country, and covering diverse types of educational and social development.

The Regional Project for Development and Education in Latin America and the Caribbean was established in order to give practical expression to these aspirations and ideas.

The following immediate objectives assigned to the above project should be mentioned here, by reason of their importance:

To study development alternatives in education, specifying the forms that economic, social and cultural development might take in each country and in the region as a whole, during the last quarter of this century.

To set out criteria as a basis for possible changes in international co-operation in the sphere of social and educational development, indicating priorities and forms of action.

To establish bases for social planning which will dovetail action concerning education with parallel initiatives in other social sectors.

The mere listing of these objectives reflects the magnitude and responsibility of the task.

There is no need here to describe the strategies brought into play by the project in order to achieve its objectives. We would, however, briefly indicate that the project, in its initial phase, moved away from overall analyses—which, like overall recommendations, had shown only relative effectiveness—to give preferential treatment to case studies and the review of problems which, according to the national development strategies of the countries involved in the project, required priority consideration. The project called for the participation of teams of governmental technical experts and of groups from academic centres in undertaking case studies. As a result of these two operative dimensions, some dozens of social researchers and technical experts have been engaged

in study of the problems of development and education in the region, a marked achievement in terms of horizontal co-operation between the countries involved and between their respective academic centres.

The project set out various analytical approaches. Among these were studies concerning the problems and requirements of education and rural society, studies concerning situations and types of development and education, studies relating to the employment market, educational planning and financial considerations bearing on educational development and planning strategies, and studies of a historical kind and analysis of the socio-economic structures within which education develops.

In the light of considerations and conclusions contained in the case studies, global studies will be undertaken under the project in the near future to provide the necessary data on which possible changes in international co-operation in the sphere of social and educational development may be based.

Anticipated results and impact of the project

An expectation is the availability at an early date of global studies, which will set out norms and options to enable international and regional co-operation organizations to give the planning of their activities greater precision and to facilitate the dovetailing of action in education with action in other sectors of social development.

In short, they will enable development problems to be tackled more rationally and systematically than before and will define more clearly the role of education within the whole series of measures which must be undertaken on an integrated basis by all social sectors.

Such studies would be of considerable value not only to international and regional organizations but to governments in the region as well. The latter would be able to make use of the data and options offered (according to their own political, economic

and social policies) for the more effective attainment of the development objectives which each one of them has established.

Up to the present time the action of the international organizations, as has been pointed out earlier, has been neither improvised nor based on circumstantial and arbitrary decisions. However, the contributions that the project should be able to provide will carry rationality and scientific method as applied to international action one stage further; the far-reaching importance of this is obvious.

In the short period that has elapsed since its inception, the project has achieved the following positive results: the opening of the way for the co-ordination of the activities of different organizations, such as UNDP, ECLA, and Unesco, and of many countries in the region, on the basis of a work programme catering for interests which, it is recognized, are shared and which involve the achievement of common objectives; the establishment of a regional network of teams of government technical experts and of groups from academic centres engaged in study of the problems of education and development, so as to intensify research into specific subjects of particular concern to a given country or group of countries; and the preparation of a series of case studies which shed new light on problems or situations that had not previously been the subject of detailed analysis or been given any particular consideration from the standpoint of development and education.

The dissemination of the case studies referred to above opens up the possibility of a widespread exchange of critical views; it fosters the comparative examination of a set of problems which in many respects is not confined to the region and which can be of interest to researchers in other areas who will perceive parallels and differences in given cases or aspects of education shared by all.

It is interesting to note that the Development and Education Project has relatively modest financial resources and that all the personnel taking part in its activities, at the central co-ordinating level and in the regional network, belong to the countries in the region. The project could serve as a model or example of considerable interest for other parts of the world. This objective is not explicitly formulated in the project, but is none the less valid for all that.

The conclusions which may be drawn and the alternatives offered will obviously be valid only for the region in question. They cannot be applied automatically to other contexts and other historical, educational, economic, cultural and social situations and must be the subject of separate research in each particular instance. But what has been set up is a model for co-operation between international and regional organizations and countries in a region, in their common quest for solutions to the 'education and development' issue, as well as a strategy for action and a methodology for work which can be adapted to the needs of other latitudes. What is more, a spirit of international collaboration has been established, underlying the determination to solve development problems in such a way as to bring about justice and equity among peoples and individuals. All this is consonant with the principles of a new world economic order—a source of hope for real progress, the affirmation of the cultural identity of peoples and the humanization of their development.

Notes

1. The Economic Commission for Latin America is referred to both by its English abbreviation, ECLA, and by its Spanish one, CEPAL.

The Project for Development and Education in Latin America and the Caribbean

The academic and political thinking behind the Project for Development and Education in Latin America and the Caribbean reflects the new nature of the relationship between development and education in Latin America.

At the Conference of Ministers of Education and Those Responsible for the Promotion of Science and Technology in Relation to Development in Latin America and the Caribbean organized by Unesco (Venezuela, 1971) and the sessions of the Economic Commission for Latin America (ECLA) held in Quito (1973) and Port of Spain (1975), the governments of the region expressed their concern regarding the relationship between education and development. They stated that 'the very concept of development must be improved and the fragmentary approach to economic growth and human development discarded . . . it is necessary to take an integrated view of all the social, economic and political determinants'.¹

The United Nations Development Programme (UNDP), evaluating its technical assistance projects in collaboration with the

governments concerned, tackled the problem of establishing criteria for dealing with the innumerable demands from a constantly expanding sector and ensuring that these criteria are applicable to the kind of development for the region that is possible and desirable.

In the light of these questions, Unesco, ECLA and the UNDP, with the backing of thirteen Latin American governments, set up a regional project, which began in April 1976.

The point of departure for this project was an awareness of the significant structural changes which have occurred in the region over the past twenty-five years. It has experienced very high rates of population growth and considerable urbanization, and there have been changes in the contribution made by the various sectors to national production. But industrial growth has not been sufficient to stimulate the overall economy, and in particular it has failed to provide adequate employment for the working-age population. Moreover, the changes have not brought about any significant alteration in the highly concentrative pattern of income distribution.

During this period, large numbers of the people have become literate, and education, which was formerly a preserve of the élites, has become available to a high percentage of school-age children and adolescents.

These large-scale changes have given rise to a number of new situations, but have not

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always ensured equality of opportunity, nor have all the educational improvements necessarily led to a higher level of development.

In this transitional period in Latin America, characterized as it is by economic and social disunity, many forces contribute to bring about the polarization of society—both concentration and marginalization being present—while the avowed aim of education is social integration. Does it seek to achieve this aim? Does it succeed in achieving it? What are the difficulties? How could education accomplish its aims? It is around these and similar questions that the objectives of the project are centred.

The priority long-term objective is 'to foster thinking on the relationship between education and society by considering current trends in educational expansion in relation to the conceptual planning of a unified development process according to specific conditions in the various countries, which include various forms of educational and social development', and by contributing 'to the formulation of basic guidelines for educational policies in the countries of the region. . . .'

With a view to attaining these objectives, provision has been made for a series of studies on various relatively unexplored themes, which call for considerable specialized research, to be undertaken in connection with the project. At the end of the first stage of the project, a general assessment of the relationship between development and education in Latin America will be made. It will be based on an analysis involving case studies and studies on specific problems, which have been grouped under a number of themes.

This procedure has been adopted in order to focus attention on subregional diversities and the complexity of the problems under discussion, since failure to realize that complex phenomena must not be dealt with from only one angle may be the reason why, in many cases, policies have not achieved the results anticipated.

The need to relate achievements to information, thinking and policy changes gave rise to a strategy intended to promote informational activities parallel with programmes for the support of government technical groups, so that the latter would have an accurate picture of the situation in each national society, and could carry out studies on the most important national problems.

In this context, the project entered into co-operation agreements with the governments of Colombia, Costa Rica, Guyana, Ecuador, Guatemala, Honduras, Panama and Peru, and an agreement is now being negotiated with the Bolivian government. In each of these countries, contacts will be made with ministries of education, ministries of planning, agricultural-development institutes and universities. The intention is to set up technical groups which will carry out research and analysis, assisted by project personnel. This implies requiring a high standard of local personnel and also viewing technical assistance as a form of horizontal co-operation associated with an international centre for integration and advice.

This aspect of the project was accompanied by academic work on a similar scale, for which the intellectual resources of the different regions were mobilized and information on education and development available at research centres in each country was used.

Under these twofold operational arrangements, a number of groups of technical and research workers are now engaged on field and study projects on the question. They met at the first seminar of the project, held in Quito, where they presented, compared and analysed the results of their research.

In the first two years of the project studies involving four different lines of analysis were undertaken. The first line of analysis, which was the most general and abstract, was that of the styles of development prevalent in the region. An attempt was made, in the first instance, to work out a conceptual scheme which would

embrace the variety of coexisting styles. Second, a historical analysis of the main educational patterns to be seen in these styles of development was made. This aspect of the project was complemented by more empirical investigations.

On the basis of the 1960 and 1970 censuses, an appraisal was made of the changes in the educational profile and its correlation with occupational and stratification variables throughout the region.² Furthermore, a number of case studies have yielded detailed information on various features of certain styles of development, such as those of Costa Rica, Paraguay, the English-speaking countries of the Caribbean, and Ecuador and Peru. In these last two countries the significant aspects have been the speed of educational change and the role of two key factors—one economic, the other political—in stimulating the achievement of social and educational mobility.³

Naturally, the countries selected are not representative of all the styles of development to be found in the region. Cases in which education is conditioned by the modernization crisis or in which manpower is the dominant factor are not dealt with. However, if time and the operational limitations on the project allow, the research programme will be rounded off with a general analysis of these styles, based on available research and new statistics.

The second line of analysis concentrated on problems related to education in rural areas. In view of the magnitude of these problems in the Latin American context, three significant types of problematic situations were selected within the framework of the project, on the basis of which an assessment which would be valid for the continent as a whole could be made. The first type is found in bilingual societies of indigenous origin, where ethnic discrimination and cultural heterogeneity are more marked. In this connection, three different studies were conducted: the first concentrated on strategies and procedures adopted for bilingual education in Guatemala; the second was

concerned with ethnic discrimination and the role of the educational policies proposed for its eradication in the southernmost part of Latin America; and the third, which is at the planning stage, will analyse the role of education as part of an integrated rural development process (Bolivia).

Another line of approach to rural problems has been the study of the various agrarian-reform processes and examples of productive structures in which the medium-sized family farm plays a central role. These are points of interest because they afford an opportunity of observing educational progress in situations where the socio-economic structures cease to be an obstacle to development or where education functions within the framework of a process of social mobilization in the rural sector. One example is the study on Peru, which contains an analysis of a specific case of social mobility within the context of a socio-linguistically marginalized population. Another example is the study on Honduras carried out in conjunction with the Unesco project for a network of educational innovations for development which highlights the importance of trade-union and co-operative organizations in planning new forms of education which meet the demands arising from the process of agrarian reform. Lastly, there is the study on rural education in the coffee-growing region of Colombia, which shows how a certain type of agricultural production can be conducive to a higher level of educational development than is usual in rural areas.

Still another approach centres on change in institutionalized education. Most studies are conducted from the point of view of integrated planning; here, however, the problem is approached on the basis of the relationship between the educator and the rural community in which he works. An analysis of such work in backward rural communities is presented in this 'dossier'.⁴ Another study, which is in preparation, will analyse the problem as it is met with in rural areas today.

The third research theme in the project is the relationship between education and the labour market. In this area of study also it was essential to select a sector whose empirical and theoretical significance was such that a genuine advance in knowledge could be made. Of the three major sectors of the labour market—the State, industry and other types of employment—the second was chosen because of the important role played by industrialization in the economic transformation of Latin America. Two very different situations were studied which are, to a certain degree, typical of industrialization in present-day Latin America. In one situation there is considerable heterogeneity of production and wide educational coverage, in the other, recent industrialization and low educational coverage (El Salvador). On the basis of these results, it was decided to undertake a study of various educational policies in relation to the demand for industrial employment, curricular reform and information on the relationship between education, employment and income. Three different study projects on this topic are in progress: one concerns the role of technical education, and is based on the situation in Panama; the second, centred around the relationship between employment, education and income, is being conducted on the basis of data gathered from family surveys in Argentina; the object of the third is to examine the relationship between education and employment by reviewing the classic theses of the theory of human capital and, on this basis, to propose an alternative theoretical framework for the interpretation of this relationship.

Lastly, the fourth line of research is to analyse the processes of formulating and implementing educational policies and plans. At this level, a study of the role of educational planning in Latin America has been made.⁵ Furthermore, it is planned to consider the nature of innovative processes in education, their sources, the dynamics of their development and the obstacles to their dissemination. A study of educational

financing in relation to economic fluctuations has also been made.

At the present stage of the project, the emphasis has shifted—without detriment to the finalization and systematization of the work begun in the first stage—from the external conditions of education to the internal aspects of the dynamics of educational systems. This emphasis on the internal aspects of education applies both to the forms of reproduction of external conditioning in education and to factors such as values, institutional dynamics, etc., which characterize educational activity in itself. Accordingly, research in this stage is centred on the organization of education and those mainly concerned with it. On the one hand, an attempt will be made to draw up a balance-sheet showing the role and the problems of the various levels of formal education (university, secondary education and elementary education) and the various levels of informal education (both from the point of view of informal education in itself and within the sphere of culture for the people as a whole). The roles of the principal persons engaged in the educational process, particularly the teachers, who in one way or another influence the others, will also be studied.

The studies carried out will be integrated into a general diagnosis of developmental and educational problems in Latin America, the main features of which will be derived from field studies. Each of the stages—formulation of hypotheses, studies on the main aspects of social development, studies on the dimensions of the educational system and a general diagnosis—seeks to reflect the variety of situations in the region and the specific features of each situation.

The adoption of this method will enable us to tackle the question of the bases of educational development policies more efficiently, not only because of our knowledge of national or subregional situations, but also because of the involvement of academic groups and govern-

mental technical experts in the study of these situations. The governmental technical experts will have a knowledge of the development prospects of their respective societies and of the societal projects put forward by the various academic groups, and so will be able to propose educational alternatives.

Notes

1. See the article by G. Weinberg in this issue of *Prospects*.
2. Concerning these questions, see the articles which follow by G. W. Rama, G. Weinberg, and C. Filgueira.
3. The large amount of material available and our limited space have obliged us to postpone the publication of these case studies to another number.—Ed.
4. See the article by A. Prada.
5. See the subsequent article by N. F. Lamarra and I. Aguerrondo.

Education, social structure and styles of development

One characteristic is common to all the countries of Latin America: it is easier to gain access to education at all levels than to attain power or wealth. Although it is the policy of certain countries to involve the public more actively in politics, the general situation reflects the profound crisis at present affecting the democratic concept of government, in which varying political trends are characterized by determined authoritarianism and repression of civil rights. Thus it may be said that, despite the increase of education in the region, participation in political affairs has been rendered more and more difficult by restrictions of all kinds.

Political processes are not an isolated phenomenon, but reflect the fluctuations of the capitalist economic system as a whole. The substantive import phase having come to an end, the internationalization of the national markets and the presence of transnational corporations have made it necessary to redefine relations between the main world economies and the economies of Latin America, as well as relations between the different social groups within national societies.¹

This new style of development—described as dependent and associated—has led, in certain national economies, to the emergence of capitalist trends producing new resources and expectations. Nevertheless, such trends are invariably concentrative and restrictive: despite the changes brought about in the distribution of wealth as between the different social strata,

and although the benefits of development have been made available to certain upper-middle groups of the population, half the population derives very little benefit from the results of economic growth.²

Regional considerations should not be allowed to obscure the diversity of national situations. In this regard, the concentration of wealth is closely linked to the degree of popular participation in political affairs.

To put it in another way: the pattern of income distribution—which Jorge Graciarena classifies as élitist, traditional, modern or mesocratic—is not a result of the degree of development of capitalism, but a political variable of it. Hence, similar economic structures produce different patterns of distribution, demonstrating that ‘the difference lies in the pattern and nature of the political regime, which explains the transition from one type of income distribution to another’, and that distribution depends ‘on the degree of authoritarianism of a political régime and its ability to compromise’.³

The relation of social forces in the government determines both the access to education and the income distribution. Thus both reflect the partial strategic concessions made in order to forestall global demands, the forms used by the government for the legitimation of power, and the values composing the image of society.

To this effect, the social functions fulfilled by education, with variations of emphasis ac-

ording to the type of society concerned, may be summarized as follows: (a) to transmit the culture of a society and its dominant class; (b) to preserve the system and provide innovators; (c) to perform certain political functions (enlist support for the existing system of government and train leaders), certain functions relating to social class (maintain and select candidates for various posts on the basis of acceptance or rejection of social mobility), and certain economic functions (relating mainly to the recruitment of manpower of the quality and in the quantity required by the economic system).

According to the type of social structure, the nature of the power relations between the different social groups and classes and the opposing strategies, a certain style of development pursuing specified aims will be selected. And the general policy of development will determine the demands made on education and decide which factors are to be emphasized and which should be given less degrees of priority.

The fact that education now caters increasingly for the masses has made the relationship between education and the social system crucial. Education has now taken over functions previously performed by the family, the primary community and the work situation. (. . .)

There exist other possible styles of educational development, in addition to those described in this article; no mention is made, for instance, of the socialist system, with a type of social structure qualitatively different from the capitalist type. The aim has been to find a method for analysing the content of education in the context of each type of social structure, and examining it as a factor of a certain style of development.

It has been assumed (see Table 1) that each of these styles—traditional, social modernization, cultural participation, technocratic and/or training of manpower, political ‘freeze’—is designed to fulfil a certain social function, which determines the aims of the educational system.

In fact, the principle is that the multiple

activities of educational systems are designed to serve a central purpose, representing the main objective of the power structure, which establishes the administrative machinery and the priorities determining specific educational activities.

The main function of the traditional style of education is to preserve the social system. This is true to some extent of every educational process, but in this instance—the societies in question being stagnant societies with so little dynamism that they tend to reproduce themselves without change—the other functions of education, such as the training of manpower, the development of culture and the attainment of social mobility, receive very little attention. Thus the traditional style of education merely reproduces the values of the dominant class and does little to promote either scientific development or technical training.

Conversely, the main function of the social-modernization style of education is to promote mobility, to unite the masses in a new type of consensus whose key values are the legitimacy of power deriving from popular acceptance and belief in the benefits of social mobility. The attainment of internationalization takes priority over the training of manpower, and the presentation of the educational system as an impartial tribunal of social selection becomes more important than the quantitative output of the system or the quality of the knowledge transmitted.

The degree of autonomy of the educational system varies according to the type of function it fulfils. In the cultural-participation style, education enjoys a great deal of autonomy, being able to select its own objectives and follow the logic of its internal structure. Society adopts its criteria concerning the value of culture, and uses them as the basis for its hierarchy. At the same time, since the legitimacy of the system is not challenged, ideological plurality—synonymous with cultural dynamism—is given free rein in teaching practice, without causing concern in ruling circles.

TABLE I. Styles of education and their main characteristics

Style	Main educational functions	Economic dimensions	Political dimensions	Social dimensions
Traditional	Conservation: socialization, maintenance of the established order based on the values of the ruling class	Stagnation: agriculture as the basis of the economy	Oligarchy: political control not open to dispute by the masses	Ruling class with little differentiation Other social classes lack identity and organization Existence of poverty and marginal elements
Social-modernization	Mobility: integration of the masses Training on the basis of participation in an educational system relatively open to the demands of groups in the process of integration	Moderate growth, with distribution Growing importance of the domestic market	Unstable relationship and/or alliances between classes integrated in the system 'Adjustment' of mobility	Trend towards capitalist class structure Internal differentiation of the bourgeoisie Advancement of middle classes and proletariat Society incorporating the masses but with marginal elements
Cultural-participation	Culture: provision of a 'code' which legitimizes a status and gives admission to a sector characterized by egalitarian internal relations	Abundance and production of surpluses in the specific economic sector, which are distributed by the State	Élitist pluralism Increased autonomy of the 'political bureaucracy' within the framework of a democratically sanctioned alliance of the upper and middle classes	Easing of relations between social classes due to the increase in jobs and wealth Consolidation of the upper and advancement of the middle classes
Technocratic and/or training-of-manpower	Economy: education limited to functional and stratified training of manpower, sometimes without any political or ideological trend	Accelerated growth with concentration 'Internationalization' of the domestic market and export of industrial goods	Control exercised by part of the upper class or politico-military technostructure, with participation of the bourgeoisie, national or other	Distinct class structure Partial and gradual incorporation of social groups with the expansion of the market
Political-'freeze'	Politics: restoration of the authority and values of the ruling class Elimination of the mobility of the masses Educational compartmentalization through stratification and reduction of intellectual activity	Crisis due to staleness of the model or intensification of class conflicts	Sectors of the upper class with the support of the intermediate sectors and presence of the military	Restructuring of class relations on authoritarian lines Lowering of income levels and reduction of the participation of the middle classes and the proletariat

In the political 'freeze', on the contrary, the main function of the style is to ensure the political control of education. Strict limits are imposed on education, which is useful only in so far as it transmits to the rising generation certain irrefutable values presented as dogma. Culture and knowledge are not values in themselves, but only a means of organizing the desired type of society.

Certain features of this style of education are also found in communist educational systems, since the aim in both cases is to establish societies based on an exclusive ideology.

Traditional style

As shown in Table 1, this style of education exists predominantly in rural environments, characterized by large land holdings, areas engaged in production for foreign markets, and small estates whose main purpose is to guarantee the supply of manpower. This is a disjointed form of society, not really constituting a nation—a term implying social mobility and cultural and political assimilation. In this instance, 'the concentration of wealth derives chiefly from the accumulation of property, mainly rural'.⁴ According to Max Weber, the State is an organ holding sufficient power to maintain this concentration, exercised through the land-owning class or the armed forces by a combination of methods deriving from traditionalism, patrimonialism and sultanate practice.⁵

'The ruling sector', write Giorgio Alberti and Julio Cotler, 'exercises control, directly and unequivocally, over the values, and hence also the education, of society. It thus establishes normative machinery which legitimizes its status through symbolism often containing magic-religious elements, so that the values of the ruling sector blend, to some extent, with the culture of the rank and file.'⁶

The coverage of education is very inadequate,

with the result that the bulk of the population is completely or functionally illiterate; agricultural production is of a kind which does not require the skills taught in schools.

Then again, there is a discrepancy between the level of education in urban and rural areas. The schools catering for rural areas do not provide a complete course, and are too few to cover the entire age-group; their main purpose is to train intermediate personnel. Lastly, higher education provides training only for the traditional higher-level professions, but it enjoys less prestige than training abroad; in addition, technical personnel are subordinated to the control of those occupying positions of authority. The establishment, by transnational firms, of technologically advanced industries in places where formerly only handicrafts existed necessitates the recruitment of workers with a general education, but labour-intensive assembly-line work does not require the services of many high-grade technicians.

There are, in the traditional style of education, three levels of education, corresponding to the strata into which society is divided: (a) a sector for which virtually no educational provision is made, composed of the rural population, indigenous and other, with a high rate of illiteracy; (b) a sector composed of the urban and suburban poor, for which a few grades of education are provided; and (c) a sector for which secondary and higher education is provided and is expanding in response to the demand of the urban middle classes for education similar to that received by the ruling classes. Since the latter type of education is basically designed for the training of a political élite, and since the power structure leaves no opening for any new groups, it produces an 'anti-élite' cut off from the mass of the population, whose members either rebel or emigrate.

Social modernization

This style of education will be given greater attention in this article, because Latin America has opted for social modernization in preference to alternative types of development.

Attention will be given here to the phenomenon of social mobility, which is virtually confined to the intermediate sectors and also to other phenomena reflecting the recurrent demands of the masses. Owing to the transitional character of many Latin American societies, which combine the ability to absorb conflicts with the inability to find permanent solutions to meet the demands of participation and development, education must make a particularly important contribution towards meeting these demands, and remains relatively aloof from the requirements of the economic system.

The juxtaposition of the terms 'social' and 'modernization' reflects a specific type of structural change characterized by economic expansion which gives birth not to true capitalism but to a whole series of phenomena—urbanization, growth of the middle class, consolidation of the proletariat despite the survival of marginal elements, social mobility, etc.—affecting a large proportion of the population.

But modernization, instead of leading from the starting-point of a traditional society to the goal of a developed society, both built on the same static, ethnic model, and based on an idealist evolutionary pattern, reflects the conflicting social structure of dependent development which exists in many Latin American countries.⁷

An economic system that fails to produce a dynamic and integrated economy, and that perpetuates the cleavage and lack of cohesion of social classes instead of following a European development model, creates a permanent process of social mobility which is not fitted into the economic system and is therefore reflected in demands in other domains (housing, education and so on).

The authorities may deal with this mobility

in various ways: either try to integrate it with economic growth and redistribution of wealth, or try to eliminate it by repressive measures, or lastly try to absorb it partially by transforming it into other types of action.

All three solutions have been applied in specific instances in the development of the region; and the fact that the second is at present the most common should not cause us to forget that the third was frequently adopted in the past and could well be used again if, in the future, the new forms of capitalist concentration were to integrate economies more fully and promote social change through structural expansion.

With the social-modernization style of education, it is possible both to control pressure for structural change and to maintain existing class and power relations by compromise and by transforming social mobility into expectations of individual advancement through education. In this connection there are certain restrictions subject to which new social groups can be integrated in society.

Intensified educational development can transform social pressures into systematized expectations of social mobility, since it sets the seal of legitimacy on the system of power and makes it amenable to change, provides an opportunity for integrating groups which may be opposed to the system, creates the mobility necessary for renewing the élite by also drawing on potential leaders of the opposition, generates opportunities for representatives of different generations, and makes education an ostensibly impartial tribunal for the selection of personnel to fill posts at various levels.

In these conditions, society is automatically impelled to make a 'leap forward', with continuous development of its educational system. In this way, while every stage in the process of modernization extends the coverage of the educational system and raises the standard of teaching for larger sections of the population, the value of education is steadily dropping: the upper and the upper middle classes move up to

a higher cultural level, so changing the status of jobs on the labour market and automatically reducing the value of the qualifications held by the class below them, and so on down through society.

In those countries which have adopted this style of education, the process of educational expansion passes through a number of stages: (a) incorporation of the residual middle classes formed in the course of the outward expansion of the economy; (b) incorporation of the middle classes brought into existence by social differentiation linked to the development of the modern production sector and services; and (c) incorporation of the masses as a result of intensive urbanization and industrialization for import substitution.

The first stage—analysed by Gregorio Weinberg in greater detail elsewhere in this same number—is connected with the process of national integration and consolidation of the political system. In this case, primary education is an extremely important factor for the middle classes as a gateway to secondary education, whereby they are able to join the ruling group formed by the fusion of the old oligarchy and the bourgeoisie, and attain sufficient cultural standing and intellectual training to work in the political bureaucracy of the new order.

In the second stage 'the middle classes have a close alliance with the urban proletariat' and act 'as a factor for the stimulation and acceleration of development',⁸ advocating a type of development characterized mainly by such features as nationalism and statism.

The expansion and differentiation of the economic structure give rise to processes of social mobility through structural expansion, which benefit highly mobile groups, composed mainly of international immigrants. These groups, through integration in, or association with, the power alliance, enjoy educational advantages which include free tuition, admission to urban schools offering complete courses, secondary education (in particular teacher-

training colleges) and access to higher technical and administration training schools where they can qualify to join the modern élite, which also forms part of the traditional power system.

One of the effects of this style of education is the redistribution of income (particularly in the middle classes), and the elimination of the most glaring social differences. Also, the establishment of a single educational system facilitates the upward mobility of the newly educated middle classes.⁹

The third stage—incorporation of the masses—highlights the contradictions of the social system, and two conflicting trends emerge.

The first trend involves an increase in the number of children attending and graduating from primary schools, an accelerated expansion of secondary education (which in some countries reaches more than 50 per cent of the relevant age-group), huge increases in the enrolment figures for higher education (25 per cent of the 20–24 age-group), a decline in academic standards so as to facilitate the advancement of persons with simple socio-cultural backgrounds, and a considerable increase in expenditure on education.

The second trend consists of an attempt to counteract the effects of democratization, despite which there still exist certain groups of society who lack the basic elements of education. In these conditions, though the educational system is expanding, its élitist 'pyramid' character persists, so that neither the contents of culture nor the methods used for its transmission change in such a way as to validate the culture of the new groups now incorporated into the system. At the same time, teaching does not seem to be adapted to the requirements of the new type of student. The (ostensibly) egalitarian and socially impartial educational system in fact confers various advantages on the upper middle classes, and constitutes a legal barrier against people at lower social and cultural levels. Though the policy of education is proclaimed to be democratic, its machinery is not: allocation

of resources to the higher levels of education at the expense of the lower levels; differentiation, in the allocation of material and human resources, on the basis of students' social origins; granting of priority to several baccalaureate studies; concentration of the lowest social groups in short university courses; creation of post-graduate courses (theoretically this is justifiable on academic grounds, but the level of teaching indicates that their purpose may in fact be to ensure the hierarchical superiority of groups receiving higher education); and, lastly, segmentation of education by the establishment of private teaching establishments at all levels, from pre-school institutions, accessible to the upper classes only, up to university.

The modernization style, since it allowed upward movement, at one time implied the existence of an alliance between the middle classes and the proletariat; but, as the development process became stabilized and then crisis-ridden during the 'populist' period, the enlarged middle class split up according to widely differing incomes and prospects; the most prosperous segments blended with the upper classes in a multidimensional structure, which also led to the stratification of the educational system and prevented the new groups from advancing as they themselves had done.

This 'populist' stage of educational expansion was accompanied by rapid changes in the sectoral composition of the labour market—a phenomenon described by Carlos Filgueira later in this number—as a result of which the supply of professional personnel and technicians exceeded the demand. Consequently, growing numbers of educated people now work as clerks or salesmen, preserving their status only by avoiding manual labour, while persons with secondary education are beginning to work in unskilled and manual jobs in the tertiary sector.

As regards the opposition between manual and non-manual work, education is associated with a type of upward mobility; but it is clear,

on examination of the internal stratification of the non-manual category, as reflected by the income scale, that education serves only as a means to change status, a privilege enjoyed by fewer and fewer of those who receive only a few years of secondary schooling.

Faced with the problem created by the expansion of general education and the shrinkage of the labour market, the State resorts to the creation of artificial employment. This means that increasing numbers of people are doing jobs for which they are over-qualified, and places a growing strain on services, in particular the social services.

There are also people doing jobs in the private sector for which they are culturally over-qualified, particularly among the middlemen, who tend as a result to become more active politically and to criticize the system, forming a large group of intellectuals which the government machinery has difficulty in absorbing. At the same time the expansion of services affects the accumulation and concentration of capital. Both these phenomena are linked with the crisis of the modernized societies of Latin America and with attempts to revert to a stage prior to actual social modernization.⁹

Cultural participation

This style presupposes certain economic conditions, including the existence of a sector producing a surplus for sale on the foreign market. This sector is not labour-intensive and does not directly affect the national economy, and the surplus must be channelled and distributed by the State. In these conditions, economic growth is regarded as a fact, and not as a matter of options or conflicts. Such conflicts are inherent in the distribution system and are handled mainly by the State and the bureaucracy on the basis of democratic principles, cutting across the class system and leading to social mobility and State protectionism.

The social structure is basically political, and society is presented and regards itself as being controlled by the ruling classes.

The existence of this type of economic growth and the fact that certain categories of wage-earners earn large incomes mean that there are more opportunities for advancement than in other societies.

Lastly, development has been not a process but a mutation, with the result that the previous society can neither retain its structure nor, in particular, transmit its prestige patterns. In this type of expansion, culture is regarded as the most inaccessible commodity, effectively constituting both the barrier and the leveller in connection with the power exercised by the ruling classes. A barrier because it is the slowest way of moving upwards; a leveller because it combines various features—economic, political and cultural—that form the ruling class.

Not all the social groups have access to education, and even fewer are able to complete either the primary or the secondary cycle, but this situation does not appear to provoke social conflicts. This is because there exists a relatively large variety of institutions, and education is not regarded as the only means to social advancement, especially by the members of the lowest groups, for whom there are other alternatives on the employment market, in addition to various independent occupations.

Secondary and higher education is predominantly humanist, not technical or scientific, and the large number of students of the social sciences and literature suggests that education is regarded partly as commodity and partly as a means to employment, since the State, for social reasons rather than because of technical necessity, employs vast numbers of people possessing this type of education.

Since consumption and mobility strongly encourage integration, the system does not feel threatened by questioning ideologies but regards the existence of a critical attitude as a natural consequence of university courses designed to

train top-level leaders and intellectuals. The radicalization of the student body may be said to constitute a stage in the development of political socialization. There is little danger of contact with the working class or the subproletariat; radicalization is a natural feature of academic training, which can adjust to its own needs without being bound by the requirements of either the economic or the political system. It is therefore logical that the system should give precedence to the diffusion and maintainance of culture. The former implies a certain degree of cultural differentiation—that is, the existence of a certain critical group of specialists competing to perform teaching roles defined in accordance with scientific values. Cultural differentiation is essential likewise outside the university.

‘Adopting Weber’s image of the priest and the prophet, it might be said that the university runs the risk of “ritualization” unless confronted with the criticism of “prophets” from outside, constantly questioning its rigidity and self-satisfaction with the presentation of its courses and the perpetuation of knowledge.’¹⁰

Technocratic and/or training of manpower

This style is characterized by four features: First, both the quantity and the quality of the educational services depend on the manpower requirements of the various sectors of the economy.

Second, education is segmented as regards both subjects taught and standards of knowledge, and does not constitute a single system, since the labour market lays down specific conditions (as regards qualifications, pay, etc.) determined by social indexes deriving from the power structure.¹¹

Third, education is not impartial, nor does it merely reflect society: it contributes actively to maintaining the differences between the social classes.

Fourth, the social demand for education—which in a desire for culture, social mobility and training for participation creates a social market with demands independent of the economic system—is compressed by the government, which is responsible for providing appropriate educational facilities for each social group.

This style of education exists in societies with a large rural population and a fast-growing urban population. The serious problems of marginal groups are mainly due to the lack of opportunities on the labour market.

Economic growth is considerable, especially in the industrial sector, and it is promoted by the triple action of transnational corporations, State enterprises and private firms, which differ in their approach to the domestic market and export problems. Production methods and technological levels are such that economic growth fails to generate sufficient employment; at the same time consumer goods which the country cannot produce have to be imported, with the result that the national market presents an incoherent combination of disparate economic elements—primitive, intermediate and very advanced.¹²

The incoherence of the economic structure has its parallel in the educational system. Certain social sectors (mainly rural)¹³ representing as much as 25 per cent of the population, whose services are not required in production, are condemned to remain illiterate; and there has been little change since the period between two censuses analysed by Carlos Filgueira. Primary education consisting of a few grades is available for those rural or urban groups in the process of being integrated into the capitalist economy or living in economically more developed regions. Facilities for obtaining a complete primary education and graduating from school are greater in urban centres, because of the role which education plays in economic development.

The school system, being thus geared to the economic structure, can teach workmen

the skills required for certain jobs but cannot provide a systematic education, and turns out people who are merely cogs in the production machine. It does, however, supply basic education requirements and provide the production sector with a pool of manpower which can then be adapted as needed by means of large-scale recruitment, in-service training, specialized courses, etc.

Secondary teaching consists of general pre-university courses covering very few subjects; of teacher-training colleges of a low standard, mostly in small towns or underdeveloped areas (where teachers are poorly paid and have little status), qualifying students at best for admission to faculties of education whose academic level is much lower than that of the scientific and technical faculties; and of technical schools covering a small range of subjects and intended mainly for training foremen and workers to become the working class aristocracy¹⁴ identified with 'the only conceivable form' of social organization—in which, in some countries, various religious orders play leading roles.

Since those needing secondary education belong to urban social groups integrated in the modern production or services sectors, social demand is controlled more closely here than in the case of the rural or urban population which is not integrated into society. This explains why new forms of secondary education are designed to meet this demand rather than to prepare students for higher education, which would increase the competition for senior posts on the labour market. The comprehensive schools, together with other similar establishments providing a combination of general education and technical skills, are designed to meet this demand, but the results are not entirely satisfactory because the students, who come from a select sector of society, are not content with the intermediate posts for which these courses qualify them.

Higher education has three levels. The first consists of short and long courses varying as

to social status, standards for admission and the posts to which they give access. The second level is composed of a number of institutions with different standards of equipment, and different academic and social standing: at the top are certain private establishments and some national universities producing an élite;¹⁵ at the bottom are provincial and privately run universities providing part-time education for the lower middle classes. The third level presents an important additional feature—post-graduate courses which are mandatory for appointment to any senior post. Both these courses and specialized training in foreign higher educational establishments are virtually reserved for members of the top social classes, who maintain their privileged position by claiming to possess a certain type of knowledge—in fact neither very profound nor very necessary—such as to fit them for the senior positions they monopolize.

In fact, the educational system corresponds to the pattern of wealth and power. It is the top 10 per cent of the population, holding between 40 and 50 per cent of the country's wealth, who reap the real benefits of education. It is only for this sector that a coherent educational system exists; for the rest of the population there are merely fragmentary arrangements, institutions teaching skills of various kinds at different levels. Moreover, the proportion of the GNP allocated to primary education is very small—below the average for Latin America—while that devoted to higher education is very large—above the average level.

The segmentation of the educational system has the effect of establishing a link between students' social origins and their position on the labour market. For example, most of the students at the intermediate and higher universities started at primary schools to which the bulk of the population have little chance of gaining admission.

It is at university level that a sharp distinction emerges between two kinds of education: humanist and technocratic; and it is at the uni-

versity also that the pattern of the power system is most clearly reflected.

In societies where the State is controlled by the traditional ruling classes, where it is possible to introduce new forms of development, integrate the most modern sectors of the bourgeoisie and establish direct links with foreign capital, the political power which goes with these functions is wielded almost exclusively by the members of these traditional minorities.

In these conditions, there is no room for a techno-bureaucracy, and the élite universities continue to socialize and provide political training for the sub-élite in accordance with their own model: religious or lay traditions and modern technology applied to national or multinational enterprises.

When, conversely, the State acts independently of the traditional ruling classes, and seeks other forms of structural growth, the outcome is the formation of a civilian/military form of technocracy—or State bourgeoisie, as it has been called because it promotes the expansion of the industrial sector and controls the State-run production machinery—which, in combination with the transnational corporations and the internationalized local bourgeoisie, conducts the process along authoritarian lines.¹⁶

With this type of system, relations between State and university assume a different aspect. The training of political leaders becomes both unnecessary and dangerous to the system. Since there can be no discussion of the development style, steps have been taken to eliminate all social and political studies which could serve as a means for analysing the structure of society and even challenging existing authority. But at the same time, since the main goal is growth and what is known as the leap forward in technology and management, more time is devoted to ideological studies with a view to training specialists able to devise methods and institutions not subject to value judgements.

Political 'freeze'

This style is resorted to by certain societies which have exhausted their possibilities as regards social modernization. In principle, all such societies have had to face problems of accumulation due to demands for participation mainly in the form of consumption. At the time of 'oligarchical crisis', political systems were characterized by alliances and agreements between different social sectors, which lacked stability; this period can be explained in terms of the balance of power and the arbiter State.

Owing to the weakness of the ruling class, the State enjoyed considerable autonomy, and there were often alliances between the middle and lower classes and the new bourgeoisie, with partial exclusion of the groups controlling the economy.

In some cases, when the forces involved were equal, the situation led to deadlock and consequent stagnation; but in other cases the opposing social sectors were involved in sharp conflict prior to the emergence of a new style of development.

The winning faction then imposed a political 'freeze', paralysed society by applying coercion on a large scale, handed over the running of the State to the military, suppressed not only the political system but the whole of the political structure with a view to eliminating all centres of social power rivalling the State, and established close links between the State and the groups controlling the economy.

Nonetheless, the first priority of this style of development is not economic growth but the restructuring of social relations, even though this may necessitate the stagnation of certain social and economic activities for an indefinite period. The main problem is the control of previously active social groups, requiring the elimination of various forms of participation, including those relating to the reduction of differences of wealth. Apart from re-establishment of the élitist pattern of wealth distribution, the

other features of this economic model—although the same economic and political terms are used to describe them—vary according to the situation in each individual country.

For regimes of this type, education in the social-modernization style has to be totally restructured, since it is quite inappropriate to the political system and also, in many respects, at variance with the social pattern.

The main problem is basically ideological. With the previous style of education, the transmission of values reflected the plurality of society, and the intermediate intellectual sectors, characterized by wide differences of ideology, exercised considerable control over the value content of education.

A point to be remembered is that, in the period immediately preceding the establishment of this style of education, when academic independence existed, teachers, students and secondary-school pupils were all politically active. As a result, the university either played an important part in political discussion, centralizing criticism of the system or proposing development alternatives, or else acted as a militant counterweight to the forces in power.¹⁷

In a regime based on a concentration of power and an exclusive ideology, education (which in one way or another encompasses all social classes) is used to ensure the integration of the new values in society, besides being the standard-bearer of the official ideology. It is thus not surprising that education, in some countries, was controlled directly by the military authorities and that, in all cases, immediate steps were taken to ensure the attainment of these objectives. These include eliminating academic autonomy and freedom, forbidding teachers to associate with individuals regarded as ideological opponents (in some cases preventing them from engaging in certain types of teaching, including private teaching), and expelling militant students or those thought capable of leading new groups against the system. Other measures taken include restricting the study of 'ideologi-

cal' subjects—such as social sciences and in particular sociology and philosophy at secondary and university level—and changing the curriculum for certain disciplines: in history, for instance, reducing the study of current social problems and concentrating on authoritarian periods glorifying nationalism.

Measures for the reorganization of education differ because regimes do not establish the new ideological system in one piece. To use the official language, most of them profess that their aim is to restore democracy, which, they say, necessitates the elimination of enemies and a period of restrictions in order to build a new type of society, the theoretical principles of which are not precisely formulated.

Thus determination of the ideas and values to be transmitted by education depends on the line of demarcation drawn between national and antinational. The latter may cover a wide field, since materialism thrives on rationalism and liberalism, whereas only spiritual values can form the basis of education.

In view of the above, the task of national reconstruction must cover all aspects of society. When such a task is assumed wholeheartedly, the control of all forms of cultural expression leads to the elimination of all unofficial organs—producing a kind of atony which Gregorio Weinberg has described as a 'cultural blackout'. In addition, the cultural élite, except for very small groups sharing the official ideology, are alienated by its antiliberal and antirational features; and even the conservative sectors of the population take refuge in silence.

It should be noted that one of the main features of the political 'freeze' is its failure to promote any form of social mobility, which substantially reduces the effectiveness of education.

University education reflects both the national ideology and the principles of the economic and social structure. Since these countries have the largest enrolments for higher education, the supply of senior technical personnel fully meets the demand.

The situation is that there are too many university graduates to be easily integrated into the system. These people are disillusioned and unsatisfied with the posts they occupy, and no longer believe in the theory of education as a means to social advancement, which, paradoxically enough, was what originally caused them to criticize the social system now abolished and to ally themselves with the working classes.

The reduction of the number of university students and the introduction of entrance examinations and tuition fees are all common features of the political 'freeze'. As a rule, these steps are taken—according to the official terminology—with a view to increasing the effectiveness of education, adjusting to the restructured labour market, or introducing greater distributive justice, since concentrating resources on higher education would mean spending less on fundamental education.

This style of education should logically lead to the differentiation and stratification of groups. Whereas the concentration of wealth eliminates or weakens the mesocratic pattern which had linked the various social classes, the elimination of the democratic political order establishes a clear dichotomy between the rulers and the ruled. As a result, the hierarchy becomes the social model, with individuals owing their rank not to membership of social classes, but to the part they play in the production machine.

Education should follow the same pattern, laying down different conditions regarding access to education and length of study for the different groups of society. In fact, however, there are some countries which, because public opinion is still influenced by traditional values, have retained virtually unchanged the former system giving open access to education, so that such restrictions as exist are due to the new social and economic conditions (need to start working at a younger age, etc.).

In other countries there have been specific proposals for the reorganization of education to adapt it to the rigid stratification of society.

In view of the differences of intellectual capacity resulting from unequal participation, it is proposed to split up primary education and to give the backward section of the population—estimated at 50 per cent of the total—special courses teaching practical skills enabling them to find immediate employment. Secondary education is to consist of two parts: manual and technical courses which do not prepare students for higher education, and general education, with one type leading to low-grade non-manual occupations, and one leading to higher education. Higher education would be of three kinds: short courses, teacher-training courses, and long courses, of which the third type only would give access to the fourth level of education.

In short, these proposals reflect the part to be played by education in the restructuring of society into separate groups, each with its own restricted channels of social advancement, perpetuated from one generation to the next. Implicit in this scheme is the theory of the genetic origin of intelligence and the link between intelligence and social origin.

Lastly, there is the question of the role to be played by education in the type of society to be built. The responsibility for training the political élite no longer rests with the university and will be taken over by the military machinery, into which civilians will be co-opted for the purpose. As the State social services are reduced, fewer qualified officials will be required. The cut in social expenditure—including expenditure on education, where the cut will be most drastic—will affect the salaries of qualified officials and personnel with intermediate education, with the result that government employment will cease to attract the educated. Government officials are either to be reduced in number or redistributed in such a way as to impair State economic and social functions and strengthen the machinery of repression, which recruits most of its personnel from the semi-educated. Lastly, the policy

of economic austerity, cutting down employment as a whole, affects domestic consumption, thus considerably reducing the number of jobs available for secondary-school and university graduates.

The policies promoting this style of education include a reduction of the burden on the production machinery created by the social superstructure, a moratorium on political activities and a concentration of income which in countries with a mesocratic structure implies a considerable reduction in the earnings of a large number of intermediate personnel.

Thus education, catering mainly for the middle and working classes integrated in the system, is affected by the way in which the political 'freeze' deals with democracy and social mobility projects.

The purpose of this article has been to analyse the situation of education in relation to social structures and the various processes of change. The first dimension encompasses the static element, the economic structure and the links between the social groups; the second highlights the role of the State, ideology and the societal projects of the conflicting groups. Both merge in the style of development, and an attempt has been made to explain social change not through analysis of the social structure only, and to avoid conceptualizing it in abstract or conjunctural terms.

The presentation of five styles of educational development, each characterized by one main function linking the educational system to the other dimensions of society, emphasizes the growing importance of the role of education in the social system as a whole and shows that the links between education and a national development style are not necessarily symmetrical.

This is, however, no reason for deducing that the educational system is completely under the domination of the authorities, or failing to investigate the specific nature of education, which

has its own values and standards, organizes important social groups and retains a certain ability to perpetuate or reconstruct its own teaching rites despite the scale of the changes occurring in the development style of society.

The styles of education described do not correspond to national examples, since in practice social conditions necessitate adjustments which run counter to the nature of each educational style.

This article, being theoretical in character, merely outlines a number of hypotheses; further investigations of an empirical nature will be made, and various methods for linking education with society will then be proposed. At all events, the main point is to return to a general view of education, instead of treating it as an isolated phenomenon or making a mechanical analysis of the part it plays in social change.

Notes

1. See: Fernando Henrique Cardoso, *Estado y Sociedad en América Latina*, Buenos Aires, Nueva Vision, 1973; also, by the same author, *Autoritarismo e Democratização*, Rio de Janeiro, Paz e Terra, 1975; and 'La Originalidad de la Cópia: la CEPAL y la Idea de Desarrollo', *CEPAL Review*, second half of 1977.
2. See: Anibal Pinto, 'Notas Sobre Estilos de Desarrollo en América Latina', *CEPAL Review*, first half of 1976; Alejandro Foxley (ed.), *Distribución del Ingreso*, Mexico City, Fondo de Cultura Económica, 1974.
3. Jorge Graciarena, 'Tipos de Concentración del Ingreso y Estilos Políticos', *Revista de la CEPAL*, second half of 1976, p. 228-9.
4. Graciarena, op. cit., p. 229.
5. Max Weber, *Economía y Sociedad*, Vol. 1, Ch. III, Mexico City, Fondo de Cultura Económica, 1944.
6. Giorgio Alberti and Julio Cotler, *Aspectos Sociales de la Educación en Perú*, p. 15, Lima, Instituto de Estudios Peruanos, 1972.
7. This is not the place for a theoretical analysis of the problem. Further information on this question is given in Joseph A. Kahls, *The Measurement of Modernism*, Texas University Press, 1968. As regards Latin America specifically, information is contained in Gino Germani, *Sociología de la Modernización*, Buenos Aires, Paidós, 1971; and Fernando Henrique Cardoso and Enzo Feletto, *Dependencia y Desarrollo en América Latina*, Mexico City, Siglo XXI, 1969.
8. Jorge Graciarena, *Poder y Clases Sociales en el Desarrollo de América Latina*, p. 151, Buenos Aires, Paidós, 1967.
9. Among the large number of works on this period, mention may be made of: Juan Carlos Tedesco, *Modernización y Democratización en la Universidad Latino-Americana*, Santiago de Chile, Corporación de Promoción Universitaria, 1971; Juan Oddone and Blanca Paris, *La Universidad Uruguaya del Militarismo a la Crisis (1885-1958)*, Montevideo, Universidad de la Republica, 1971; Torcuato S. Di Tella, 'Raíces de la Controversia Educacional Argentina', in Torcuato S. Di Tella and Tulio Halperin Donghi, *Los Fragmentos del Poder. De la Oligarquía a la Poliarquía Argentina*, Buenos Aires, Jorge Alvarez, 1969.
10. Germán W. Rama, *El Sistema Universitario en Colombia*, p. 190, Bogotá, Universidad Nacional de Colombia, 1970.
11. Martin Carnoy, *Education and Employment Programme. Income Distribution and Employment Programme*, World Employment Programme Research, working paper WEP2-18/WP6/WEP2-23/WP22, Geneva, International Labour Office, 1975.
12. The characteristics of dependent capitalism, or of capitalist accumulation in dependent societies, are extremely complex, and cannot be described here for lack of space. The article by Rui Mauro Marini, 'Dialéctica de la Economía Exportadora', *Sociedad y Desarrollo*, No. 1, January-March 1972, Santiago de Chile, contains a study demonstrating that development of the capitalist type is not viable in Latin America. Alain Touraine, *Les Sociétés Dépendantes*, makes a general study of the situation, reviewing the various factors involved and stressing the role of the State.
13. See: Ernesto Guhl *et al.*, 'La Educación Rural en Caldas', CIDA, and 'Educación y Tenencia de la Tierra', in Gonzalo Gataffo (ed.), *Educación y Sociedad en Colombia*, Bogota, Universidad Pedagógica Nacional, 1973.
14. See the comments on the role of this social group made by Claude Grignon in *L'Ordre des Choses. Les Fonctions Sociales de l'Enseignement Technique*, Paris, Les Éditions de Minuit, 1971.
15. Germán W. Rama, 'Educación Universitaria y Movilidad Social. Reclutamiento de Élités en Colombia', *Revista Latinoamericana de Sociología*, 70/2, Buenos Aires, July 1970.
16. Cardoso, *Autoritarismo e Democratização*, op. cit.
17. A description of this process in a specific country is given by Tomas Amadeo Vasconi and Inés Cristina Reca, 'Universidad y Poder, 1966-1972', *Revista Latinoamericana de Ciencias Sociales*, No. 4, December 1972, Santiago de Chile.

Educational models in the historical development of Latin America

In recent years, new dimensions in educational studies have notably enriched the concept of education. Leaving aside the strictly quantitative aspects, the major area of interest would appear to be the prominent role of the concepts of development, planning and, more recently, development models or styles. These concepts give a framework for rethinking the significance and the scope of the educational process, and also provide a basis for the establishment of new relations, the determination of projections and the analysis of all its consequences. This broader approach to education affords new conceptual tools with which to conduct a more refined study of all the implications of the educational process. It also offers an incentive to educational reform.

The concepts of the development model and of style will be employed interchangeably as a framework for our study of some of the more significant moments in Latin American history. These concepts are already the subject of numerous writings.¹ The scope of this study led

us simply to assume the background of each historical moment considered, and to concentrate on certain interrelations or a certain interdependence of factors. Our study will underline specific similarities or differences in the various processes examined, the lines of ideological influence, the peculiar characteristics which they acquire upon incorporation within a specific reality and the limitations imposed by such a reality.

Although the concept of a development model or style aids our understanding of the processes and the contradictions inherent in these processes, we cannot justifiably disregard specific features. With a theme as broad as education, we also have to attach due weight to the asynchrony or phase shift between the different planes of educational ideas, educational legislation and educational reality, which creates a distortion that is commonly neglected.

Without claiming in each case a correspondence between the adopted style or model and the prevalent educational system, a brief historical survey of the Latin American process brings out a number of useful approaches to the study of many of its dimensions and conditioning factors.

Accordingly, we have a broad basis for the re-examination of recent experiments and historical processes, the successes or failures of which acquire greater significance in the context of the concept of a model or style. In other

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words, they are of considerable interest from the systematic and instrumental points of view. The reason is that, while providing the most accurate characterization of the ideas of each period on education, the values attributed to education and the results expected from the theoretical assumptions and the investment of human and economic resources, they also lend authority to descriptions and analyses of new aspects of the educational phenomenon or, at least, of factors which had not previously been considered.

The enlightenment

We generally wish to confine our study to a number of more recent moments in the historical development of Latin America, particularly those whose effects are still felt, and to certain antecedents of this process. Hence, we shall consider the significance of the Enlightenment as a historical moment prior to independence.

The model of the Enlightenment was characterized by its modernizing spirit: secularization of life in general, with its social and administrative implications; diversification of production; and cultural and educational modernization, although the main concern was the instruction of a ruling class. Spanish, French and Italian influences took root in the New World belatedly—a feature which seems to have persisted in practically all the processes of ideological influence to this day.

Throughout the colonial period, Spain imposed an educational policy, which was functional from the point of view of metropolitan Spain and in relation to the model of an imperial power. On the other hand, it was unfortunate in terms of the future needs of America.

The dominant authoritarian traditionalism explains various maxims of the day, such as 'spare the rod and spoil the child' and 'the child is tainted with original sin', which modern thought and, later, the Enlightenment were to

have difficulty in eradicating. Broadly speaking, the general lines of education and culture were charted on the Peninsula. It is to be noted that the Laws of the Indies simply disregarded elementary education and concentrated on other levels. Little significance should be attributed to the variations resulting from the methods of implementing these laws.

In Spain, reformers always resorted to education as a suitable instrument for effectively remedying economic and social inadequacies. The Enlightenment, which saw education as a key factor, was instrumental in undermining the rigid traditionalism and the discomposed principle of authority and eventually incorporating new patterns, values and activities in place of those which had until then been prevalent. It should be noted that in Spain and its colonies the law considered manual work to be degrading and servile until as late as 1783. In short, the followers of the Enlightenment were convinced of the necessity and feasibility of progress. 'Progress' for them was an impulse bringing about the dissemination and secularization of ideas such as happiness and freedom without neglecting, to be sure, ideas of a utilitarian character. It was in this connection that education played a prominent role.

A feature of the spread of modern thought was the dysfunctional character of the ideas which metropolitan Spain tried to impose. This fact is borne out by the backwardness of the educational system and its unsuitability to meet the needs and demands of a new era. The critical spirit acted as a solvent and the new generations of Creoles progressively acquired this spirit. In addition to these factors, we must also consider the serious consequences of the expulsion of the Jesuits. This event was the outcome of the dynamics of State secularization and the natural tendency towards homogenization of the political, administrative and judicial structures of the State, in regard to which the Jesuits wielded considerable power. The expulsion of the Society of Jesus also meant the

disappearance of a bulwark of the established order, which exercised a strong, if not decisive, influence over wide and extremely distinguished sectors of the ruling class. The Jesuits had dominated the educational system and, when they were banished, their replacements represented a considerable deterioration in the quality of the academic achievements and the methods applied; furthermore, educational aims were gradually obscured. However, this banishment of hundreds of priests—many of whom were Creoles with deep roots in their land—multiplied the critics of the colonial regime, if not its enemies. From another point of view, it could be maintained that the expulsion of the Jesuits is an early example of the brain drain for political reasons. Furthermore, the Crown was not in a position and did not have the necessary professionals to take over the activities of a religious society with secular experience, whose primary aims explicitly included the education of a ruling class.

A wealth of information could be furnished to show the inadequate conditions in which primary education developed. In this connection, we have the testimonies of the Archbishop of Guatemala, Pedro Cortés y Larraz, or the views of Simón Rodríguez, reiterated by him in a series of writings published over several decades.

In the eighteenth century the patent predominance of traditional ideas led to stagnation in the universities. The outcome was that education gradually became drained of any significant content and alienated the conceptual instruments which would enable it to grasp reality. Thus, the new needs arising from the model which was being adopted were satisfied to some degree by the development of other ideas and techniques. However, this process was to occur outside the conventional academic context, anticipating by many decades the radical changes in the universities. The advocates of the new scientific, economic and cultural ideas sought a more sympathetic cli-

mate in less rigid institutions, which were open to innovation and challenge, and where routine and apathy were less in evidence.

In America, the *Sociedades Económicas de Amigos del País* (Economic Societies of the Friends of the Country) and the Consulates were the centres from which these ideas were diffused, or perhaps it would be better to say from which the models, which were somewhat theoretical at the outset, were gradually translated into reality. Thus, the models were frequently transformed from more or less rational constructs, marked by good intentions and tainted with humanitarianism, into medium-term and long-term proposals. These initiatives and achievements occurred between 1790 and 1810.

Thus Idelfonso Leal, the historian of Venezuelan education, writes: 'The Royal Consulate provided the means for the building of roads, ports and canals, and also gave awards for the best reports on the cultivation of tobacco, cotton, indigo, sugar-cane and cacao, which clearly and authentically give a full and detailed description of the practices and procedures concerning the cultivation, processing, consumption of and trade in this precious produce and any other particulars concerning the organization of an estate.'² Thousands of leagues away, in Buenos Aires, Manuel Belgrano, secretary of the Consulate, proposes, at about the same time, a series of initiatives aimed at the 'improvement of the situation of the country, and the increase of the wealth and prosperity of its inhabitants'. Accordingly, he is concerned with roads, ports, lighthouses, agronomic studies, commercial schools, agricultural schools and naval colleges, the distribution of pamphlets in Spanish giving information on new and better methods of tilling, fertilizers, fences, forestation, crop rotation. Furthermore, he calls for 'free schools, where the luckless ones (the farm-labourers) can send their children without having to pay anything for their education . . .'

The few changes introduced into the institutions of higher education—the inclusion of new courses, particularly in law and medicine, which envolved to the detriment of the theological orientation; or the introduction of new subjects into outdated curricula such as experimental physics instead of *natural philosophy*, etc.—as well as the demands for new educational institutions are such as to suggest that the major innovations occurred elsewhere.

Various events appear to confirm the changes of attitude and conduct arising from the new style adopted, which shaped and influenced numerous activities and initiatives, such as the establishment of practical educational institutions enriched by the influx of persons from a variety of social backgrounds. We are speaking in terms of a new ideology, which had its own nascent tools, one of which—the diffusion of books—was extremely important. The succeeding historical moment is, therefore, characterized by the predominance of this ideology in search of persons whose strength and ability are equal to the task of dominating the advancing process of change. These new protagonists were to become the inspirers and leaders of independence.

Liberation

During the liberation process and the succeeding years, far-reaching population displacement was a feature of the majority of countries. It was brought about by large-scale migrations which were the result of war, by considerable impoverishment due to a lack of productive activities and the dissipation of resources in the conflict, and by instability and uncertainty born of the vicissitudes of this period of strife. While the Bourbon tradition entrusting to the State a greater role in education did endure, the precarious situation of the treasury and the lack of administrative organization were certainly aggravated. We should note the continued

prevalence among the emergent ruling class of the ideas of the Enlightenment. Its model was enriched by a number of highly significant innovations, particularly by the appearance of a new political pulsation which found its supreme expression when the ideal of the active citizen ousted that of the loyal subject. Although such an attitude may be considered naïve, it was in tune with the new principles which had been embraced. Thus, the aim was to promote the participation of all the people in the educational process. The presses produced advanced political works (which were, however, pedagogically questionable), such as Mariano Moreno's translation of Jean-Jacques Rousseau's *Social Contract, or the Principles of Political Law*, or pamphlets on civic rights and duties, all of which were certainly aimed at the education of the new generations. There were attempts to banish corporal punishment in schools. Schemes aimed at the education of women and Indians were promoted, etc. These trends represent a refurbished style which was now underpinned by ideas of equality, freedom and justice, as understood by the wide spectrum of groups ranging from the so-called Jacobins to the moderates. Education and culture were burning issues of the day.

The incorporation of political dimensions, with their mobilizing effects, qualitatively altered the new model in terms of the breadth of its postulates and the far-reaching implications of its goals.

The banning of corporal punishment, which had been widely used and accepted as a means of discipline in schools, occurred in the context of a series of similarly inspired measures, and corresponded to the style which was being adopted at the time, seen in phenomena such as the abolition of the Inquisition, and of personal service by Indians. In short, these were all analogous measures.

The scarcity of human and financial resources was one of the major obstacles with which the new ruling groups had to contend in the

advancement of their schemes. The surviving records concerning teachers' qualifications and school budgets make depressing reading. This explains, to a certain extent, the excellent reception given by the authorities or influential sectors of society throughout Latin America to the 'monitorial system' (or mutual teaching system or, as it is more commonly known, the Lancastrian school), the rapid and intensive spread of which, both in the Old World and in the New World, confirmed the fact that it met a definite need. We should also not underrate the clearly favourable attitudes of Artigas, Rivadavia, O'Higgins, San Martín and Bolívar, who were all concerned to remedy these inadequacies.

Thus the initial democratic model was confronted with an intractable reality—the anarchy which would call forth an authoritarian reaction. The latter would take the form of the construction and consolidation of the State with a monopoly of power.

Liberals and conservatives

Throughout the Latin American continent, the decades following the emergence of the independence movements were marked by the ups and downs of the armed struggles aimed at the consolidation of independence and, in other cases, by the ravage wrought by civil war.

In the years between the independence cycle and the association of the Latin American economy with the international markets, priority was accorded to the formation of the State, and the prerequisites included the monopoly of power and an elementary administrative structure. This process was to exclude the popular masses from political decisions. It is in this context that the low priority given to education is to be viewed.

However, certain symptoms were soon to appear which were indicative of a vigorous redefinition of forces. Thus, the traditionally

conservative groups (formerly linked to the State, its administration and bureaucracy, but above all anchored to an economy and society based on the estate and the plantation) endeavoured to regain ground. They were opposed by the liberals, who were bent on their own programmes of change. It would be rash to generalize as to the outright predominance of certain of these groups over others, who at times were almost as powerful. Besides, for various reasons the content and look of the European liberal and conservative movements changed in the New World.

Both liberals and conservatives claimed that they could restore the constituted order. It should be pointed out that, on certain matters, these movements appeared to be more antagonistic towards each other than was actually the case. They were definitely poles apart on questions concerning the Church or secularization, but their opposition was less extreme in regard to other problems. Besides, it is their different attitudes towards the State that are significant. The liberals were the negative moment in the process of State consolidation, as they practically always objected to the conventional role of the State, while in other cases certain radical groups rejected outright the idea of a State.

This attitude is not easy to explain in view of the absence of anyone else capable of performing the activities which, in the opinion of the liberals, were no business of the State, such as participation in economic development. These theoretical limits placed on the function of the State had serious consequences in various spheres. Thus, in the field of education, there were grave implications in the acceptance of compulsory school attendance, which at times seemed to them to run counter to the proclaimed principle of freedom of schooling. Furthermore, the liberals criticized the State from a European point of view inappropriate to the political and institutional reality of Latin America at a very different stage of development. Also, they regarded the State as a 'hangover'

from colonial times, yet the middle class of the advanced capitalist society of Europe simply did not exist in Latin America. For their part, the conservatives advocated the restoration and defence of the traditional order. To a certain extent this explains why, in a number of cases, they became protectionist or considered it essential to maintain regular armies. However, they refused or reduced to a minimum State interference in the educational activities of the Church.

It should also be mentioned that, even when the Latin American population was predominantly rural, none of these groups did much for rural education. This seems quite logical in view of the mainly urban character of the liberals and the manifest lack of interest on the part of the conservatives in raising the cultural level of the rural population, which consisted largely of peasants and vast masses of the indigenous population not always integrated in the money economy. This gap in the educational policy of both political currents delayed the incorporation of these rural sectors into a more modern economy and society and, of course, their participation in political life.

Without attempting to characterize them by resorting to an oversimplified formula, it could be stated that, in regard to this historical moment, the liberals, in view of the interests which they represented and their ideological affiliations, endeavoured to be both reformers and secularizers. In other words, they adopted a position which brought them into confrontation with the political and economic power that upheld the Church, and they strove to diminish the influence of the clergy in educational matters. The conservatives, on the other hand, held that the Church was an important factor in the maintenance and restoration of order. However, rather than consider generalizations, it would appear more relevant to ascertain how these currents fitted into the reality, and how they endeavoured to come to grips with that reality and modify it in the light of their project or

model. The complexity of the process, and the diversity of the characteristics which it assumed in each country, make it difficult to describe globally, since there was a wide variety of responses aimed at the formation of the ruling élite of the new society. Thus in Mexico the liberals ruled out university education, judging the university to be a relic of colonial times. In Buenos Aires, on the other hand, they succeeded in evolving a proposal which was not less significant for being short-lived.

Towards popular education

Throughout Latin America, and particularly in the years following the Mexican Reform and the 'Organización' in Argentina, efforts were stepped up to incorporate a growing number of people into the sphere which has generously been referred to as 'civilization'. All previous attempts to do so had failed, partly on account of the precarious nature of the economies and their limited integration with the central economies, together with the civil wars, the lack of administrative organization, and treasury shortages, but also because of difficulties arising from a frequently obdurate geography and a scattered and predominantly rural population (with areas inhabited by an overwhelming indigenous majority). The conquest of isolation, poverty and linguistic fragmentation, and the establishment of modern, stable institutions and legislation seemed to be prerequisites to the integration of these countries. In the opinion of some of the more distinguished members of that generation, all this called for long-term educational policies, with substantial investment in teacher training, buildings, etc. The consolidation of the national State seemed unattainable unless some progress was made towards the achievement of these objectives.

Besides the experience accumulated by the previous generation, which was characterized by successive failures to give effect to such an

educational policy, the increasing needs were the subject of highly perceptive analyses by the new leading elements in society. A number of these analyses are still surprisingly relevant. One of the outstanding figures of the day was a Mexican—Benito Juárez who, in 1848, painted a discerning picture of the educational situation in Mexico (which was to go from strength to strength over the years, despite political ups and downs).

Domingo Faustino Sarmiento, the champion of popular education, was active at the opposite end of the continent. Certain aspects of his work merit consideration, if only in a summary fashion.

Sarmiento's ideas on education, in the form in which he tried to introduce them in his country, were inseparably linked with an immigration and settlement policy. He furthered the transition of Argentina from cattle-breeding to agriculture; this involved a change in the pattern of ownership and not merely in the productive structure, which implied the formation of an agricultural middle class.

Education was one of the essentials for the accomplishment of this task. At the primary level, it would involve the education of manpower capable of producing and of participating in the process of change. Hence, education had a political as well as a socio-economic function. In any case, such a scheme anticipated reality and pointed to the need for the creation of a radically new society comprising a plurality of participant social groups. Such a concern for primary education was well founded, since elementary education and popular education could at that time be considered practically the same thing. In practice, however, literacy training did not advance at the rate which had been expected: since rural workers did not acquire ownership of the land, enjoy political rights or exercise effective suffrage, the educational factor did not perform in this context the function of a transforming variable, as inferred from the original Sarmiento model, but became a mod-

ernizing variable. At any rate, these educational ideas played a fundamental role and were the inspiration behind Act. No. 1420, which was to have a nationalizing effect in relation to immigration and promote the integration of the country.

This policy provided a fairly early coverage of a very significant sector of the school-age population; in other words, it managed to a large extent to achieve universal primary education. Thus the focal point of the system continued to be primary education, while secondary education was regarded merely as a stepping-stone to university, the purpose of the latter being to train the ruling class and the professionals required by the development process.

The Uruguayan José Pedro Varela probably represents the culmination of the current of thought and action concerned principally with popular education, which was seen as a tool for the transformation of Latin American society. Varela was in many ways a disciple of Sarmiento and, like the latter, a great admirer of the so-called North American model of development. His ideology was imbued with a form of spiritualistic rationalism and gradually transmuted into open positivism, which was to have a decisive influence on the entire cultural and educational life of the country.

We shall refrain from dwelling too long on the work of Varela but confine ourselves to a number of quotations illustrating his educational ideas in relation to other aspects of national life. 'Education', he writes, 'is then the only service entrusted to the public administration which does not consume the capital invested in it, but incorporates in a new form the capital represented by the persons who are taught.' He cogently argues that a 'twofold effort is needed to remove the basic causes of our political crisis; we have to eradicate ignorance among the rural population and the lower strata of society; we also have to eradicate the error which was born in the university and which drags in tow the enlightened classes, which are

directly involved in public affairs'. We should also bear in mind, he says, that 'the error is not peculiar to the University of the Republic, but is common to all the privileged universities'.³

The date of the death of José Pedro Varela seems to be symbolic, since it coincides with the end of one era and the beginning of another. The new moment was to be marked by the fever of progress and its implicit contradictions, and would be ideologically coloured by positivism, which would soon decry the liberal principles to which it was affiliated. The slogan 'education is the driving force of progress' was reiterated, in slightly different versions, up and down the continent. It links three concepts which were very dear to the men of the last two decades of the nineteenth century: education, driving force, progress.

In brief, Domingo Faustino Sarmiento and, José Pedro Varela postulated a social order which would successfully deal with economic and cultural backwardness (particularly of the rural population, which continued to form the overwhelming and much neglected majority) and political instability. They accordingly advocated an order founded on education and participation, which for them was something quite different from the order which positivism would soon seek to impose, particularly when it broke its original ties with liberalism. Furthermore, as they lacked the essential social forces to back up their programme of change, these visionaries remained to a certain degree in a vacuum. However, their schemes would in any case become meaningful and begin to materialize when they were embraced by the new urban groups, and in particular with the emergence of the middle classes.

The liberals rejected the colonial university, considering that it was identified with traditional values and was thus concerned with the perpetuation of its own prestigious position. In the period in question, any projected large-scale educational reforms were not élitist but rather were directed against university edu-

cation as such. This is not so strange, seeing that the university (in terms of the social backgrounds of the students, the career prospects offered by its courses, and the professional and cultural role of its graduates), which continued to be a minority if not a patently oligarchic institution, could scarcely understand and much less give expression to the interests and aspirations of the new groups, whose 'model' of development had preciously little to do with higher education and called for an extensive mass culture of a twofold political and utilitarian character.

The positivists

The Industrial Revolution, which produced growing quantities of manufactured goods, gave rise to a demand for raw materials and food; in the Old World, life-styles and patterns of consumption changed. This process was to be reflected in unsuspected ways in the countries of Latin America, which would associate with the international market as producers and consumers proportionately to their export capacity. However, they were not necessarily to industrialize as swiftly as was imagined, since the direction taken by international relations would result in the appearance of inequalities and less developed countries.

There occurred in the early stages an accumulation of surpluses which were not always invested with economic or productive objectives in mind. Furthermore, the social classes and the incentives needed for such an approach simply did not exist, with the result that resources were frequently squandered in consumption. In a certain sense, at least, and for particular sectors, progress seems to have been synonymous with greater comfort and the increased consumption of ever more sophisticated goods. From another angle, progress would also require radical changes in the spatial distribution of production and employment. New activities would

be centred in areas made accessible by the new means of transport, or ongoing activities would be extended. Hence, it would be necessary to alter the laboriously established equilibrium, with a resulting modification in the relative weight of the different branches of production. Furthermore, the organized State would favour association with foreign capital and would facilitate its access to the market. This situation would lead to new patterns of relationship between developed and underdeveloped countries. The view was that Latin America would not meet the needs which would arise in the course of the years without political order and economic freedom. It was believed that, once these objectives were attained, progress would come about, as if by magic. Positivism offered the key. Peace was a genuine and heartfelt need. The solution was patent: it was essential to put a stop once and for all to the by now chronic confrontations of liberals and conservatives, and to have no more revolutions, which in truth were nothing other than moderate coups d'état. All these factors militated in favour of the acceptance of a philosophy of order, capable of putting Latin American countries on the road to progress, 'travelling along the path of peace'. In a certain sense, positivism was the answer to such aspirations and disquiet. Wherever positivist ideas spread, their influence was decisive. In few places, however, was positivism as influential as in Mexico, where positivist adepts would succeed in occupying important government posts.

Positivist ideas on education could be summarized by reference to the attempts of the positivists to rationalize society through the introduction of scientific method, and their endeavour to create a consensus of support for the postulated model; that is to say, collective prosperity would be achieved through economic growth. Liberalism had become conservative, and order had taken precedence over freedom, all in the name of progress.

Gabino Barreda, one of the architects of education during the first stages of positivism, was

concerned at the way freedom was turning into anarchy. He wrote: 'Freedom is commonly represented as an ability to do or will something without the constraint of the law or any other force; if such a freedom could exist, it would be both immoral and absurd, since any form of discipline and consequently order would be impossible. Far from being incompatible with order, freedom consists, for all phenomena, whether organic or inorganic, in full compliance with the relevant laws.'⁴

The 'modern' concept of ownership which the regime of Porfirio Díaz aspired to impose naturally led to a policy which contributed to the accelerated dissolution of the indigenous communities, which under the pretext of being given the opportunity to become owners were dispossessed of their lands. On a different plane, but in a directly related development, the spread of Spanish and the encouragement to learn foreign languages, particularly English, represented a savage attack on the indigenous languages. This question of language teaching as a political factor becomes particularly relevant if we consider it in the context of the 'model' advanced by Porfirio Díaz, where it is seen to be quite consistent with the other aspects of the process.

Elementary education continued to be overwhelmingly urban, to the detriment of the rural sector when the latter was not simply ignored in practice. At the turn of the twentieth century the illiteracy rate was 54 per cent, declining to 50 per cent over the following decade.

The Mexican Revolution in 1910 would raise other problems concerning the land question, rural education and language teaching. These and many other political, social, economic and cultural questions would be interpreted differently in the light of a new 'model'. However, such a topic is outside the scope of this article.

The ascent of the middle classes

It is generally accepted among modern historians that Argentina evolved in a series of stages, which must be distinguished if the country's historical process is to be satisfactorily understood. For example, Gino Germani defines, within the State described by him as a 'representative democracy with limited participation', two phases: one is the phase of 'national organization (1853-1880)', and the other is the phase of 'liberal conservative governments (the oligarchy: 1880-1916)'.⁵ This division helps to explain the attitude of two generations which differ in many distinct respects. The so-called 'eighties generation' carried to the extreme many of the inconsistencies and limitations of the previous generation. These differences are amply illustrated if we consider the role in national development attributed to the State in the first phase, and the emphasis on private enterprise in the second phase. The resolute consolidation of the outward-looking growth model was a feature of the last two decades of the nineteenth century.

The central idea of the book by Juan Carlos Tedesco⁶ 'is that the ruling classes assigned a political and not an economic function to education. The economic changes which occurred in this period were not such as to require manpower to be trained locally. The structure of the educational system changed only in such aspects as could have political implications and produce political advantage. What is singular in the case of Argentina is that the forces which were poles apart in the political arena concurred, when each was at the height of its power, in keeping education alienated from the production sector'. Thus, Tedesco continues, the educational process involved at that time an endeavour to bring the situation more into line with the model, the main lines of which could be characterized as an attempt, on the one hand, to achieve dissemination and establish guidelines for the attainment of a consensus and, on

the other hand, to educate a ruling and administrative class.

In brief, the ruling classes evolved a development model served by the educational system: hence the congruity of this system once it became consolidated and results were obtained. Over the years, the system tended to favour the middle classes, which were not associated with the primary or secondary sectors but which benefited from the expansion of the tertiary sector (bureaucracy, services, professions, etc.). The middle classes were not in any better position to propose an alternative model and, implicitly, shared in the model of outward-looking growth which gave them a feeling of security and, perhaps even more important, a feeling of progress (a word which, as we have already seen, enjoyed enormous prestige). All these factors explain, in some way, an optimism which we now tend to regard as naïve. However, to the extent that the traditional ruling sectors had to face crises, they became more resistant and considered the middle class as a potential rival. For their part, the middle class grew increasingly aware of its own identity, and showed itself at the same time to be more consistently democratic. But, since education was considered as a road to ascent and prestige, the middle class also endeavoured to take advantage of and increase all the possibilities provided by the system to reach the university, which was the bulwark of the traditional sectors. This process was reflected in the plan for tertiary education included in the Córdoba University Reform (1918). This course of events was repeated practically all over Latin America with varying intensity and speed. Its main postulates called for university autonomy, the participation of academic staff and students in the running of the universities, academic freedom, periodic competitions for academic appointments, and the so-called associate-professorship system, which made it possible to have parallel chairs in a university; it also called for a wider intake, modernization of curricula, university extension, etc.

Such a programme called for a radical redefinition of the role of the university, which was required not merely to train professionals and promote scientific research but to contribute to the effective democratization of society.⁷ This stage marks the incursion of the new sectors which demanded the democratization of political life through suffrage. They also wanted greater participation in educational and cultural life. However, it is to be stressed that they always respected the outward-looking growth model.

From the ideological point of view, positivism had an extensive and profound influence in Argentina. This aspect is covered by an abundant literature⁸ which does justice, in most cases, to the heterogeneity and the interlocking of the various schools and tendencies. The forerunners of positivism, Domingo Faustino Sarmiento, Juan Bautista Alberdi and various of their contemporaries, were succeeded by a current which is described by Francisco Romero:⁹ 'There ensued a period of stagnation in a comfortable and opportunistic pragmatism; in this atmosphere some of the worst tendencies in our collective life emerged.' This current led to conformism in the face of the successes of the modernization programme being implemented under the banner of peace and administration, without any regard for the serious contradictions to which it would give rise. However, another current, which would establish the so-called Paraná School, exerted a considerable and beneficial influence, especially on the development of teacher-training colleges. These were soon to become centres of change which would produce outstanding figures such as Pedro Scalabrini, the first exponent of Comte in Argentina; J. Alfredo Ferreira, who was perhaps the best known and most illustrious representative of Comtism; and other persons who were more concerned with education as such than with its relation to the model at large. A third line was Spencerism, which made a lasting impression in the universities.

In fact the most interesting way to study Argentine positivism would be to give a lengthy and variegated description of its different lines of influence and their meeting-point with new currents which, if they at times enriched it, also led it down blind alleys. Other avenues of study would be its impact on other disciplines (history, psychology, philosophy, pedagogy, etc.) or on the spirit of key institutions such as La Plata University.

Some concluding thoughts

Throughout the nineteenth century, the concrete situation and ideas about education in Latin America differed widely according to the country and circumstances in question. Many of the features of these countries endure to this day in the form of traditional or institutional or legal apathy, hence their significance as a subject of study.

These processes can be properly understood only if they are considered in terms of implicitly admitted development models or styles of development, and of the ideologies underlying them. From their analysis, certain significant, and some lasting, characteristics may be inferred. Many ideas could not be put into effect at the time because of an absence of committed agents—in other words, a lack of social forces that would support them and ensure their concretization. Transplanted prestige models—of proven effectiveness in other regions—failed because they had not been properly rethought or confronted with the new reality, or because the existing inconsistencies had not been taken into consideration. Such factors as these frequently hindered or delayed the envisaged processes of change.

Very often, with a predominantly rural population, the most liberal ideas invalidated themselves because they were put into effect for the benefit of the urban sectors, so that education served only to deepen the contradictions

instead of diminishing or overcoming them. In this way, the homogenization of the social structure was deferred.

The rigidities of the various systems were such that, at different times, innovations had to be introduced or disseminated outside them. In the face of limitations and theoretical difficulties, it was not admissible that the systems should be rethought in terms of a different model.

Thus, everything would tend to suggest that many of the present disorders, contradictions and inadequacies of the educational system or the relationship between it and society should be studied, which would permit the development of models that are theoretically satisfactory and practically viable. Such a challenge was vehemently issued well over a century ago by Simón Rodríguez, who wrote: 'Either we invent or we err. . . .'

Notes

1. Aníbal Pinto, 'Notas sobre los Estilos de Desarrollo en América Latina'; Marshall Wolfe, 'Enfoques del Desarrollo: ¿De quién y hacia qué?'; Jorge Graciarena,

'Poder y Estilos de Desarrollo. Una Perspectiva Heterodoxa'; all in *CEPAL Review*, first half of 1976, Santiago de Chile, p. 97-193.

2. *Documentos para la Historia de la Educación en Venezuela*, edited and with introduction by Ildelfonso Leal, Caracas, Biblioteca de la Academia Nacional de la Historia, 1968, p. xxxii.
3. José Pedro Varela, *La Educación del Pueblo*, Montevideo, 1874, written as a report to the governing board of the Society of Friends of Popular Education, and *La Legislación Escolar*, Montevideo, 1876, written with a view to providing the basis for a public education bill. Both works were reprinted under the title *Obras Pedagógicas*, Montevideo, Biblioteca Artigas, Colección Clásicos Uruguayos, 1964. The quotations are from *La Legislación Escolar*, p. 90, 111 and 114.
4. Cited in Abelardo Villegas, *La Filosofía en la Historia Política de México*, p. 127 et seq., Mexico City, Ed. Por-maca, 1966.
5. Gino Germani, *Política y Sociedad en una Época de Transición*, Buenos Aires, Paidós, 1962.
6. Juan Carlos Tedesco, *Educación y Sociedad en la Argentina (1880-1900)*, Buenos Aires, Ed. Panedille, 1970.
7. The basic work in the abundant literature on the subject is *La Reforma Universitaria (1918-1940)*, edited and annotated by Gabriel del Mazo, La Plata (Argentina), Edición del Centro de Estudiantes de Ingeniería, 1941, 3 vols.
8. See: Ricaurte Soler, *El Positivismo Argentino*, Panama City, Imprenta Nacional, 1959, among other works.
9. Francisco Romero, 'Indicaciones sobre la Marcha del Pensamiento Filosófico en la Argentina', *Sobre la Filosofía en América*, p. 24, Buenos Aires, Ed. Raigal, 1952.

Educational development and social stratification in Latin America (1960-70)

Education has developed remarkably in Latin America as compared with other regions of the world, to an extent unprecedented in history. Within a few decades Latin America has completed a process which in many developed countries lasted more than a century.¹

The two purposes of the present study are to describe the extent of this development and its specific features both in the different national situations and in the various social strata within each nation, and to put forward suggestions as to the theoretical explanation for the empirical evidence submitted.

Two aspects enter into the construction of this theory: first, a critical attitude towards the suggestion that educational development has been due solely or chiefly to the technical requirements of production, combined with improvements in income distribution; second, a structural explanation in which the facts are analysed in relation to certain variables—the social structure, the structure of government and the State.

The data used in this study have been taken from census samples for 1960 and 1970, sys-

tematized in the OMUECE (Census Sampling Operation Programme) of the Latin American Demographic Centre (CELADE). Three key aspects were selected and the information available was organized around them: the present situation and trends in regard to the extension of education at the various levels, the problem of inequality in the distribution of schooling, and the relation between occupational structure and educational level.

Trends in educational levels

In the decade under consideration (1960-70), the average increase in education in the region as a whole was 11 per cent. This figure is obtained from an evaluation of only five education brackets or categories: no education, lower primary, upper primary, secondary and higher.

The increase is remarkable in view of the inertia effect of the older population, whose educational levels do not vary. The 11-per-cent increase is in fact due to changes in the educational levels of the younger members of the community. This overall percentage does not, however, give any idea of the changes within each age bracket.

It is more interesting to consider the growth rate for each educational level. The percentage increase or decrease between 1960 and 1970 for

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each of the educational levels was as follows: no education, -15 per cent; lower primary, -10.5; upper primary, +27.8; secondary, +56; higher, +73.2 per cent.

These figures indicate that the average increase for the Latin American countries varies widely from one educational level to another. The higher the level, the greater the relative increase. At the top of the scale, the average figures for the region show that higher education increased by more than 70 per cent between 1960 and 1970. At the bottom of the scale, the relative decrease of illiteracy—or rather of persons without education—was only 15 per cent.

The figures reflect two features of the process clearly enough: on the one hand, the rapid development of secondary and higher education; on the other hand, the profound change in the educational composition of the region. The averages for Latin America do not of course reveal the great diversity of situations. (See Table 1.)

Countries can be divided into four main groups:

In the first group are countries in which a situation that came into being several decades ago is being consolidated, the process of educational development having started early (such was the case in Argentina and probably Uruguay). In these countries there is a moderate increase at the levels of secondary and higher education. This increase means that large numbers of people have the aspirations and attitudes peculiar to the well educated: pressure to obtain employment of an administrative character, demand for consumer goods, for a share of income, etc.

These pressures are felt mainly in urban areas, where they give rise to tension and conflict and attempts to reduce the latter. They also create employment problems: a demand for scarce jobs in non-manual occupations at intermediate and higher levels, underemployment, disparity between employment and education,

brain-drain, loss of prestige of education. On the political side, groups strongly influenced by ideologies tend to launch or intensify protest movements with a high potential for mobilizing opinion and exerting pressure on the State.

The extent to which the system has lost or exhausted the resources used at earlier stages to meet these demands is a decisive factor in the appearance of these great structural tensions. Processes involving the depletion of material and political resources over long periods, while the educational system was still gradually expanding, seem to be a feature of these countries.

Indeed, this shows indirectly that the early extension of education played a very important part in determining the new demands and aspirations. In societies which had already reached a high educational level in the first decades of this century, the effects of the extension of primary education and the spread of literacy were felt before the region became widely open to the international system and the stimulus of exchanges of a modernizing character.

In the second group are countries in the process of advanced transition. This group comprises Chile, Costa Rica and Panama. Within this group, the educational situation is by no means the same, the levels of the first two countries being higher than that of Panama. Nevertheless, certain features of growth are common to all three: a very marked expansion of secondary and higher education, much greater than in the first group of countries; a considerable reduction of the number of persons without any education, with the largest rates of decrease for the decade (Chile, 37 per cent; Costa Rica, 28 per cent; Panama, 26 per cent); and a moderate growth rate for complete primary education.

The three countries in this group have much larger rural populations than do those in the first group, and two of them also have a considerable urban-rural imbalance. While these countries are rapidly approaching the level of Argentina

TABLE I. Educational levels in 15 Latin American countries, in percentages of population older than 15 (1960-70)

Country	Year	Without any education and pre-school	Lower primary ¹	Upper primary	Secondary	Higher
Argentina ²	1960	8.9	25.7	47.1	15.0	3.3
	1970	1.1	18.2	55.6	20.7	4.4
Brazil ³	1960	42.8	28.9	19.8	7.5	0.9
	1970	43.5	27.9	18.8	8.5	1.3
Chile ²	1960	16.1	20.7	36.3	25.0	1.7
	1970	10.1	18.7	44.7	23.6	2.9
Colombia	1960	27.1	36.0	22.8	13.2	1.1
	1970	—	—	—	—	—
Costa Rica	1960	16.9	34.1	34.9	11.0	2.8
	1970	12.0	24.8	40.1	20.3	2.8
Dominican Republic	1960	35.5	38.6	21.9	3.2	0.7
	1970	35.0	23.8	33.0	6.8	1.2
Ecuador	1960	33.0	28.0	28.3	9.3	1.4
	1970	27.0	20.3	34.2	16.5	2.0
El Salvador	1960	56.7	22.5	14.0	5.7	0.4
	1970	45.7	23.3	20.3	8.8	0.9
Guatemala ⁴	1960	(63.3) 2.5	17.8	11.3	4.4	0.7
	1970	55.9	20.3	14.8	6.9	1.1
Honduras	1960	57.0	26.4	12.0	4.2	0.4
	1970	42.4	25.4	23.0	8.4	0.8
Mexico	1960	39.2	30.0	23.1	6.6	1.1
	1970	31.7	27.9	28.0	10.1	2.3
Panama	1960	27.3	18.4	34.4	17.5	2.1
	1970	20.0	16.4	37.7	22.1	3.7
Paraguay	1960	19.1	41.4	28.2	7.8	3.5
	1970	15.4 ⁵	41.8 ⁵	31.0 ⁵	10.5 ⁵	1.3 ⁵
Peru	1960	—	—	—	—	—
	1970	27.1	24.6	22.9	20.5	4.9
Uruguay ⁶	1960	13.0	23.3	43.5	17.7	2.3
	1970	7.7	25.9	34.8	20.7	10.8

1. This comprises the first grades of primary education.

2. Argentina, in the period between the two censuses, changed the numbering of primary-school grades while retaining the same duration for the cycle. Hence the course covered six grades in 1960 and seven in 1970. During the same period Chile increased the primary course from six to seven years.

3. Population census, 1970.

4. The percentage in parentheses corresponds to the subjects who did not state their educational level.

5. National Population and Housing Census, 1972.

6. Fifth Population and Housing Census, 1975. Advance sampling.

Source: OMUECE.

in so far as secondary and higher education are concerned, they are also engaged in reduction of the illiteracy rate in rural areas. Despite the fact that they have much higher birth rates than do the countries in the first group, they managed during the decade to reduce by one quarter the number of persons in rural areas without any education.

Pressure similar to that exerted by the well educated in the more advanced countries has resulted from the extension of education to new groups of people who were previously uneducated. This appears to be one of the features of these countries. However, if the situation is to be diagnosed more accurately, one must bear in mind that other factors besides the rapid rise in educational levels contribute to the rising demands. As has already been observed, there was a certain expansion in the 1930s or the 1940s, but the process was not the same as that of the 1960s. The process varied, for example, according to whether or not it coincided with a process of rapid urbanization or of rapid exposure to outside stimulation or to international frames of reference.

It can be assumed that this group of countries is facing problems arising from the new aspirations of both the rural and urban populations. In the rural population the lower strata of society are involved, whereas in the urban population all the strata contribute. Not only do we note active pressure on secondary and higher educational facilities, which have to meet the new demands for education arising from the educational levels immediately beneath them, but the eradication of illiteracy in rural areas has caused people to drift to the towns, where they swell the numbers of new literates, creating unprecedented pressures and demands.

Even if the system is dynamic enough to cope with its own growth for a relatively long period, it seems likely that these countries will very soon have to resist serious structural tensions as a result of the extraordinary development of education.

While educational status may retain symbolic significance as a form of participation in modern life, and while there is scope for absorbing occupational demands, it can be assumed that education will automatically see that the aspirations generated are commensurate with the means of fulfilling them. Nevertheless, the experience of the more advanced countries shows that beyond a certain threshold the tensions bound up with the educational system cannot be kept from spreading to the other institutional systems.

This threshold is not of course immutable; it depends largely on the resources available to those in power and the ways in which they can be combined. In this connection, it must be admitted that the path followed by the more advanced countries does not necessarily have to be followed by those in an advanced stage of transition. There are combinations and resources which lead to a specific outcome in each case.

The third group comprises countries in which transition is slow. Despite significant differences, this group includes Guatemala and El Salvador and probably Honduras and Nicaragua (on the basis of the data available for the period 1960-70). The educational pyramid is changing at the lower levels and the highest growth rates correspond to the upper primary level: Guatemala, 31; El Salvador, 45. However, the most important point is the coverage of the educational system. As already mentioned, despite the considerable effort made, half the population in these countries is never involved in the educational process and during the decade under consideration the number of persons without any education was reduced only by approximately 10 per cent. When one considers the rapid population increase in these countries, one realizes the additional difficulties which they must overcome each year in order to provide for new batches of pupils at the various levels of education.

Here there is more rapid growth at the

secondary and higher levels than there is in the more advanced countries, although it is not so rapid as in the group comprising Chile, Costa Rica and Panama. Yet the percentage of well-educated people, which was very low at the outset, still remains small. For instance, in El Salvador the 13-per-cent growth rate for higher education represents little more than 0.5 per cent of the population enrolled at that level during the decade. Much the same may be said of the growth rates for secondary education—57 and 54 per cent respectively—which represent increases of 2.5 and 3.1 per cent in the educational pyramid.

This group of countries appears still to have a great growth potential at these levels of education as compared with the others but, unlike the countries in the first two groups, it is not in a position to reach saturation point within the next few decades.

Educational stratification is tending to change not only at the lower levels but throughout society, both in the capitals and smaller towns and in rural areas. In this connection, the widespread character of the process distinguishes these countries from those in the other groups and shows that the process is not peculiar to rural areas.

In societies of this kind the widespread low educational levels may not create disparities such as those found in the other groups, because certain factors may attenuate their effects: the relative slowness of change, which occurs largely in capital cities and smaller towns exposed to modern influences, the nature and content of education (high proportion of drop-outs and repeaters, etc.).

Finally, the growth rates for secondary and higher education give the impression that the new levels will not affect the pattern of demands and aspirations to such an extent that the occupational structure will be unable to cope with them, despite the economic lethargy of these societies.

The fourth group includes countries which

are difficult to classify. Strictly speaking, as this is not a homogeneous group, it seems appropriate to deal with each case separately. On the basis of the information available, an analysis may be made of the situation of Mexico, Peru, Paraguay and Brazil.

In Mexico the rapid changes to be observed in the educational system mainly affect the lowest and the highest levels. It is changes in the educational pyramid which are involved: in rural areas they mainly concern literacy; in the capital, according to the information available, they concern secondary and higher education.

In a country where a high percentage of the population lives in rural areas, rapid change in those areas may create serious conflicts relating to other aspects of social stratification.

Peru seems to have similar characteristics. In that country the decrease in illiteracy—the most considerable during the 1960–70 decade—follows the same pattern as in Mexico. Although comparative figures are not available for the year 1960, literacy figures and information on the coverage of the educational system and the increase in enrolments indicate that Peru is in much the same situation as Mexico in so far as the educational mobility of the lower levels of the system is concerned.

In Brazil, on the other hand, the educational process has been discontinuous and in a sense regressive, despite the progress made in the region as a whole. It might be appropriate to make a thorough analysis of educational levels in this country to supplement the information on illiteracy there. In any case, the exceptional nature of the process and the fact that it is quite different from that of the other countries studied need no further proof.

In short, two conclusions can be drawn from the variety of situations described above, two conclusions which tie up with the initial statement of the problem. The first concerns the relationship between the educational growth described above and the growth of the gross per-capita product. No clear pattern emerges;

nor is it possible to discern any positive trend relating the two variables. Indeed, both seem to behave in a random way, sometimes precluding a 'manpower approach'. Economic lethargy sometimes coincides with a considerable expansion of education. The second conclusion is that educational development and changes in educational levels give rise to aspirations and demands which exert pressure in favour of a more equitable distribution of the national product. In this connection, on the basis of the theory of human capital, a positive relationship might be hoped for, greater expansion of education leading to broader distribution of income. This would mean that machinery exists at State and government level to translate these pressures and demands into redistribution policies. However, recent experience in States with bureaucratic and authoritarian régimes does not bear out any such assumption.

Educational inequality

Because of the pattern of educational development considered earlier and because a feature of this process is the growth of secondary and higher education without complete coverage being provided at primary level, educational inequalities in the region are being reduced only very slightly.

On the basis of the information available, it can be said that the great development of education achieved in the region was accompanied by a sizeable reduction of inequalities only in the few countries where there was rapid educational development. In those in which education is most developed, such as Uruguay and Argentina, inequality was much less marked even at the beginning of the decade.

Except in those cases where inequality has been significantly reduced for various reasons, the relative distances separating individuals in the educational system tend to remain the same. The system as a whole is shifting upwards, but

the internal differences which this implies are not reducing inequalities to the same extent.

Owing to this feature of educational systems, it is advisable to adopt a dynamic approach when analysing educational stratification, for the system is continually evolving as a result of this upward shift and the consolidation or ever more marked decrease of inequalities.

The situation of countries in which education developed rapidly—among these Chile affords the best example of equalization in the decade—rather suggests that this is a twofold process: increase of enrolments and even distribution of institutional expenditure over the various levels.

It seems reasonable to suppose that in those countries the pressure and demand for more schooling coincided with the educational policies and lines of emphasis of the governments. In this way it was possible to take in large numbers at every level of education. The cost of secondary education and, even more so, of higher education dropped significantly, sometimes by half. In other words, two pupils will be educated for the cost of one, which means a drastic change in the resources available per pupil at each level of education. This is a clear example of the permeability and ease of educational development as compared with the rigidity of the economic system.

Education and occupational structure

Here I shall deal with the relationship between the educational system and the occupational system and the way in which the former is reflected in the structure of production. The rate of educational growth for the most significant levels may be summed up as follows.

LOW-LEVEL OCCUPATIONS
IN THE SECONDARY SECTOR

These constitute one of the levels with the lowest growth rates. The causes follow a definite pattern. One group of countries, in which Chile affords the best example, are experiencing educational growth as a result of the considerable drop in the number of persons without any education or with lower primary education only, of the moderate decrease in the number of those with upper primary education only and of the increase in the number of those with secondary education. These features are present in Costa Rica, even though decreases are not found in all cases; on the contrary, the number of persons without any education or with upper primary education only remains very stable. The other two countries which follow this pattern, with some variations, are Paraguay and Mexico. In the former there is not only a considerable increase at the secondary level, but also an increase at the upper primary level.

In another group of countries, educational growth is brought about by the great increase at the upper primary level and a moderate decrease in the number of persons without any education. The atypical case in this pattern is the Dominican Republic, where the occupational level declines as the numbers of those without any education increase.

Argentina cannot be taken into account owing to the conditions under which the census was taken: even if it is assumed that the distortion produced by the change in the criteria used for the census is evenly distributed, the figures for Argentina would reflect a situation even more extreme than that of Chile. Underlying the educational growth to be observed in the urban industrial category in lower-level occupations changes of minimal importance appear. These are due, in some of the more advanced countries, to the emergence of a small group of educated workers with secondary education—probably technical education—and, in the less advanced

countries, to the consolidation of a growing category with complete primary education.

THE CATEGORY
OF AGRICULTURAL WORKERS

In Chile, Costa Rica and Paraguay the increases are due to higher educational levels (upper primary). In these countries, advanced transition takes the form of a steep drop in the numbers of those without any education and a moderate decrease in the numbers of those with lower primary education only. There is every indication that the situation in regard to agricultural workers is rapidly approaching that obtaining in Argentina and Uruguay. On the other hand, in the more backward countries, Guatemala and El Salvador, there is at best a moderate decrease in the number of those without any education (0.86 and 0.88 per cent respectively). In any case, this marked increase concerns only small sectors of the agricultural category. Mexico, for its part, is a special case: there is no decrease in the numbers of those without any education; there is an increase at the lower primary level—2.42 per cent, which is the most considerable increase in any of the countries—and a decrease at upper primary level. Apparently the great educational effort made in this country during the decade succeeded only in raising the lowest levels of elementary education.

Summing up, one may say that in the countries under consideration the educational situation of low-level agricultural workers is in general undergoing a rapid transformation. This is happening both in the more developed countries, where the increase at the level of complete primary education reaches 50 per cent (Costa Rica 1.51, and Paraguay 1.54 per cent), and in the more backward countries, where, although this increase affects a smaller number of these low-level agricultural workers, wide sectors of the population have been involved in the educational system.

LOW-LEVEL OCCUPATIONS
IN THE TERTIARY OR SERVICES SECTOR

In regard to these occupations Chile and Panama are the countries in which educational growth is most marked. There the numbers of persons with no education, with only lower primary or upper primary education steadily decrease, while the numbers with secondary education increase considerably in Chile (almost 50 per cent) and moderately in Panama.

Costa Rica, Paraguay, the Dominican Republic and Mexico also follow a similar pattern, except that there is moderate growth at the level of upper primary education in all four countries (1.3, 1.21, 1.16 and 1.19 per cent respectively).

However, there is much greater growth at the level of secondary education in Costa Rica, the Dominican Republic and Mexico (2.28, 1.85 and 1.97 per cent respectively) than in Chile and Panama.

Finally, in the most retarded countries—El Salvador and Guatemala—educational growth is confined to the category of persons without any education. The figures for those with only lower primary education are fairly stable (1.04 and 1.07 per cent). Growth at the level of upper primary education is significant (1.4 per cent in both cases). At the level of secondary education, growth rates are very high (2.53 and 1.88 per cent). As in other sectors, growth at the latter level affects a very small percentage in the sector.

In most of the countries, the fact that educational growth in this sector occurs chiefly at the level of secondary education is the most noteworthy feature. Although the most advanced countries undergo the greatest internal changes in their educational composition, the considerable growth at secondary level seems to constitute a rapid and generalized process affecting the whole region.

In all the countries, with the exception of Paraguay, educational growth is most marked in the manual occupations in the tertiary or

services sector, or at least in that category among others.

This being the case, it may be said on the basis of the great development of education among these categories that the majority of the educated persons who do not gain access to occupational levels corresponding to their educational levels are drawn into this group of occupations. This phenomenon seems to be fraught with more consequences in those countries which have embarked the furthest on the process of expanding secondary education. Chile and Panama are precisely the countries in which it appears to be becoming most difficult for persons with a secondary education to enter occupations at higher levels. However, in Costa Rica—the only country in which educational growth is considerable at all seven occupational levels—the growth rate for secondary education is much higher than the average for Latin America. Although the proportion of persons in this situation is smaller in the most backward countries, Costa Rica's small group of highly educated persons at this occupational level is rapidly growing.

EMPLOYEES, SHOP ASSISTANTS
AND SUBORDINATE PERSONNEL

Persons working in commerce on their own account and employees, shop assistants and subordinate personnel in industry, commerce and services certainly constitute one of the most heterogeneous occupational groups. The study of this group poses additional problems which are difficult to solve unless it is broken down into its component parts. It should be borne in mind that it is precisely in this group of occupations, regarded as the lowest of the non-manual occupations, that the educational level is rising most.

In three countries—again Chile, Costa Rica and Panama—changes have occurred in the internal educational composition of this occupational group: a marked decrease in the

number of persons with upper primary education only and increases in the number of those with higher education. The figures for secondary education remain relatively stable in Chile and Panama, whereas in Costa Rica they tend to increase. Nevertheless, the growth rates for these three countries are close enough to justify grouping them together. The countries in question are at a stage of advanced educational transition, higher education being a decisive factor in educational growth at this occupational level. In this connection, Chile and Costa Rica have greater growth rates at the level of higher education. No other occupational group is growing in the same way as this one. In Panama, on the other hand, persons with high educational levels seem to be distributed throughout the occupational levels in a more balanced way. A large and growing number of persons with higher education are not managing to enter higher-level occupations and this situation is becoming more pronounced in the most advanced countries.

In addition, the most backward countries constitute a group in which the process is affected by the stability of the upper primary and secondary levels of education, growth occurring only at the level of higher education. Guatemala is in this situation, and El Salvador to some extent, though growth is nil at all three levels. The Dominican Republic, for its part, seems to stand midway between this group and the previous one.

Finally, Paraguay is a special case, with growth occurring only at the secondary level. In Mexico, on the other hand, this level is the only one at which a decrease occurs.²

As can be seen, this occupational level displays a pattern similar to that of the levels discussed earlier in so far as educational growth rates are concerned, although, as mentioned in the case of occupational levels 3 and 6, the differences occur at a higher educational level (secondary or higher education).

THE PROFESSIONAL AND TECHNICAL LEVEL

This does not display any clear growth patterns. In some countries there is a marked increase in secondary education, which may correspond to occupations performed by specialists or technicians with training below university level. This process is very understandable and has already been mentioned in connection with Costa Rica, where the educational average was reduced by 0.8 per cent owing to a considerable internal change in the relative strength of secondary and higher education (secondary education increased by 2.6 per cent whereas higher education declined by 0.35 per cent). The same pattern is apparent in Paraguay, and to a lesser extent in the Dominican Republic. Guatemala, Mexico and Panama stand apart in that they display marked growth at the level of higher education without any decrease at the secondary level.

Chile, with moderate growth of secondary and higher education, has features common to both groups.

It is probable that in many countries the decrease of higher education is the result of changes in the internal structure of occupations and the appearance of new intermediate-level occupations (included under the head of technicians). In the second group of countries, on the contrary, growth seems to follow the usual pattern: proliferation of education of university level corresponding to liberal professions.

EMPLOYERS AND MANAGERS

Lastly, no particular pattern can be distinguished in the occupations corresponding to employers and managers in the secondary and tertiary sectors and agriculture and extraction (occupational levels 1 and 7). Examination of the information available does not yield any reliable data owing to the great diversity of the situations at these levels.

TABLE 2. Intermediate and higher occupational levels, secondary and higher education, secondary and higher education at intermediate and high occupational levels (in percentages, 1960-70)¹

Country	1960			1970		
	Intermediate and higher occupational levels	Secondary and higher education	Intermediate and higher occupational levels with secondary and higher education	Intermediate and higher occupational levels	Secondary and higher education	Intermediate and higher occupational levels with secondary and higher education
Argentina	31.4	18.7	13.5	32.2	26.5	20.0
Brazil	14.5	8.1	6.0	—	—	—
Costa Rica	19.6	24.6	13.6	25.2	30.3	19.0
Chile	21.5	13.0	10.3	22.9	20.9	14.3
Dominican Republic	11.0	9.3	5.6	11.9	13.8	6.9
Ecuador	12.2	9.3	5.4	—	—	—
El Salvador	10.9	6.0	4.4	11.7	8.0	5.2
Guatemala	9.0	5.0	4.3	10.9	7.4	5.4
Honduras	9.6	4.7	3.7	—	—	—
Mexico	19.9	8.3	6.1	22.4	13.0	8.5
Nicaragua	—	—	—	15.7	10.1	6.8
Panama	16.4	22.1	11.5	21.8	27.3	15.8
Paraguay	11.8	10.7	6.5	13.8	15.8	8.8
Uruguay	30.7	21.7	14.3	—	—	—

1. Raw data, not adjusted for missing data.

Source: OMUECE.

In this connection it would be essential to establish a hierarchy of occupations within each level in order to make a proper analysis, but that is beyond the scope of this article.

Finally, it might be added that the high proportion of relative over-qualification to be found at certain occupational levels is particularly evident higher up in the social stratification—in the intermediate and high-level occupations.

The table taken from the study on social stratification is highly revealing in this respect: it shows that the remarkable expansion of secondary and higher education cannot be absorbed by the occupations to which these educational levels are supposed to correspond.

As may be seen from Table 2, the percentage

of persons with secondary or higher education remaining outside intermediate and high-level occupations tends to increase in almost all the countries, most markedly in Chile and Panama, where 50 per cent of the persons with secondary or higher education do not have intermediate or high-level occupations. The percentage is even higher in the younger age groups.

The trends exemplified by educational development during the period under consideration are of such magnitude that it is no exaggeration to say that education has become the most important factor promoting social mobility in the region.

The structure of production did not allow a

corresponding increase in the number of recruits. Nor did the occupational structure, despite the profound changes which had taken place in its sectoral composition, develop at the same pace as education.

In addition, development was not continuous at all educational levels. As observed when the changing trends were analysed, although the increase in the primary enrolment was relatively small and in some cases insignificant, at the secondary and higher levels the increase was very marked.

This rather special type of development differs considerably from that noted previously in the development countries, where the expansion of secondary and higher education was preceded by the provision of primary education for almost everyone.³

In the first place, the educational stratification shows an imbalance, concentration rates not having been significantly reduced. With some exceptions, the Gini rates for the 1960-70 period were not appreciably reduced, chiefly owing to the smallness of the increase in primary education and the persistence of illiteracy.

In the second place, educational expansion tends to produce more persons with secondary and higher education, who are over-qualified for the openings available.

Thus some of the high-level occupations—for instance, those involving personal services—are beginning to show signs of a rapid increase in their averages, which are already reaching secondary level. The same applies to auxiliary activities and subordinate occupations in industry, commerce and services, as also to the activities of persons working on their own account in the commercial sector, where the number of persons with secondary and higher education is also increasing considerably.

If it could be assumed that there was a direct relationship between the requirements of production and educational growth at the various occupational levels, these increases could be

regarded as a response to the needs of the production structure. However, it can hardly be claimed that technological or economic development presupposes secondary education on the part of persons in domestic service, cleaners, janitors, porters, and the like, or university education on the part of clerks, typists, postmen, bus conductors, messengers, etc.

Secondary and higher education is developing rapidly in the first group of occupations (lower tertiary sector) and there are indications that the percentages will soon approach those currently found in Chile and Panama (21 and 17 per cent).

Figures for secondary education are also high among persons engaged in non-manual activities at a low level (persons engaged in commerce on their own account, auxiliaries, assistants and subordinate personnel) in the countries which constitute extreme cases: 72 per cent in Argentina, 54 per cent in Chile. Even the figures for higher education at this level exceed 13 per cent in Panama and 8 per cent in Chile and Argentina.

If some data on school enrolments were added to these considerations for the purpose of a complementary study, it would be possible to demonstrate without any further evidence that school attendance by the younger age groups will in the following decade have exponential effects on educational levels in these occupations. Thomas Frejka pointed out that over a period of only five years (1960-65) secondary-school enrolments in Latin America increased four times as much as did the potential secondary school population. As for enrolments for higher education, the ratio was almost 3:1.⁴

In the light of the foregoing, too much importance should not be attached to the requirements of the production structure as a factor promoting the raising of educational levels. Educational development has been due chiefly to factors inherent in the social structure, some of which were connected with production, but it is not a simple direct response to the

supply and demand situation on the skilled manpower market.

Education seems to resemble what F. Hirsch calls 'positional goods': goods which the individual can enjoy only in so far as they are generally available—in other words, insofar as they are accessible to society as a whole.⁵

Comparison with other material goods is quite illuminating. The pleasure or benefits to be derived from the use of a car, for instance, depend on the extent to which it is used and the availability of the necessary services.

A point is reached where the advantages attached to certain goods cease to be such and oblige one to seek other resources to maintain the privileges which those goods no longer confer. This gives rise to a constant upward course in which the moment $t+1$ demands ever greater input (expenditure, time, etc.) in order to maintain the privileges of moment t .

Raymond Boudon's 'interesting aggregation paradox' is not very different. According to him, the aggregation of individual rationales—for instance, following certain paths in order to attain particular goals—culminates in a process totally at variance with the objectives sought.⁶ When an individual aspires to a higher educational level, he hopes to gain additional opportunities for rising in society (occupation, income, etc.). However, when higher educational levels are attained by the generality of the population, or large sectors of it, the effects cancel each other out and greater efforts are required to reach still higher educational levels.

This is the cause of the spiralling of the educational system, which has little to do with direct educational requirements or the demands of technological development or economic growth.

Education and the occupational structure are in unstable equilibrium and educational levels are constantly rising within the production structure. The availability of increasingly skilled manpower results in an employment policy (State or private) demanding higher qualifications for occupations where they were not

usually required. This leads to a wide range of educational levels within the same activity or occupation. So, as the new contingents enter the labour market, the work force is selected from a more and more highly educated population.

In a recent study on the process of industrialization and education in Argentina, Juan Carlos Tedesco draws attention to the remarkably wide range of educational levels to be found in a single occupation and, conversely, the wide range of occupations pursued by persons of the same educational level.⁷

In this process, education is losing its importance as a means of acquiring social status. In other words, more investments in education are required in order to fill a job than was previously the case.

Another consequence is to be observed in the social and political sphere, where there is evidence of blighted hopes giving rise to various reactions. Noticeable among these are radical attitudes and behaviour channelled into social and political movements opposed to the established order. Then there are individualistic reactions—personal confusion, anomy, insulation, brain drain.

At all events, supposing that these are the factors underlying educational development, it is impossible to see how education can go on expanding indefinitely, at least in the explosive way which has characterized its development in Latin America.

In my view, if the problem is not placed in the perspective of social stratification it will be difficult to obtain satisfactory answers. Education appears to be a commodity, whether instrumental or not, which is socially desirable and belongs to a set of commodities or values—income, occupation, etc.—on the basis of which social stratification is established. Once access to social values, and also possession and control thereof, are determined, the power structure of society can expand and distribute those commodities in varying degrees. However, this expansion has not so far had an egalitarian

effect on the various institutional systems. Hence the educational system, owing to its low cost/benefit ratio, appears to be one of the stratified subsystems which can expand most easily. The production structure, on the other hand, owing to its greater rigidity, renders promotion more difficult.

In addition, there is doubtless more rigidity in occupational structure than in the educational sphere and only very minor deviations from the level of economic development of the society are tolerated. Finally, it might be said that the income sector is the most difficult to expand, for this would imply changing the structure of production.

From the foregoing it may be inferred that a society with these features tends to emphasize the most accessible means of achieving social mobility.

What is even more important, however, is that these different degrees of expansion of the institutional orders lead to another apparent paradox: the growth of education—especially of the different levels of which it is composed—comes to be determined by the production structure, not because there is a

growing demand for increasingly skilled manpower, as might be imagined under the 'manpower approach', but precisely because of the rigidity of the economic structure, which has resulted in the educational system becoming the only means—or at least the most accessible means—of fulfilling hopes of social mobility.

Notes

1. Thomas Frejka, *Análisis de la Situación Educativa en América Latina*, Series A, No. 122, Santiago de Chile, CELADE, 1974.
2. It is difficult to use Paraguay in comparisons of the levels of higher education, owing to over-representation of the level in the OMUECE samples (1960). Mexico, for its part, follows patterns already observed. Apparently its peculiar urbanization process and the drift to the towns have led to the persistence of low levels, with some remissions.
3. Germán W. Rama, 'Educación Media y Estructura Social en América Latina', *Revista Latinoamericana de Ciencias Sociales*, No. 3, Santiago de Chile, 1972.
4. Frejka, op. cit.
5. F. Hirsch, *Social Limits to Growth*, Cambridge, Mass., Harvard University Press, 1976.
6. Raymond Boudon, *Education, Opportunity and Social Inequality*, New York, John Wiley & Sons, 1973.
7. Juan Carlos Tedesco, *Industrialización y Educación en la Argentina*, DEALC/1, Buenos Aires, Unesco, ECLA, UNDP, 1977.

Towards a realistic approach to rural education

Socio-economic disparities in Latin America present a challenge to any educational plan designed for the rural environment.

Until now a general rural education strategy has been applied, to the detriment of depressed areas. In those areas, the benefit derived from educational facilities tends to be proportional to spending power. Accordingly, instead of being conducive to equal opportunity, the educational system serves only to widen the gap between the privileged few and the under-privileged majority.

The population of these depressed areas totals approximately 65 millions. If we show the geographical areas with an acceptable living standard on a map of Latin America, they form small islands in a sea of extreme poverty. Despite this situation, there is an educational system which is totally unrelated to the realities of life.

The main aim of this article is to examine the problems encountered in subsistence-farming areas. The most urgent task in these areas is to provide for the basic necessities of life: food and a minimum of protection against the rigours of the environment. The educational system has to

respond to the situation in these areas; it has to define the knowledge and skills which will enable the population to overcome their harsh living conditions.

Subsistence economies are characterized by close links between work and family life (everybody sows, everybody harvests, everybody tends the animals); by a lack of capital for investment in modern technology; by a huge labour surplus which results in young persons and adults temporarily leaving home to seek work elsewhere (harvesting or casual work); and by considerable emigration to urban areas, particularly among young people. Those who stay in the rural areas have either to live with their parents, generally in an underemployment situation, or to work as wage-labourers for the agricultural enterprises, with little prospect of permanent employment or promotion.

Importance of a general basic education

If we accept the social character of education, we must also accept the need to gear educational planning for the rural environment to the needs of all age groups and their various problems. Thus, any determination of basic educational requirements has to go beyond the framework of the school institution and concentrate on structure and means.

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In other words, the concept of basic education should encompass the education of children and adults, and schooling has to be closely related to out-of-school life and the world of work.

In fact, it does not seem possible to achieve any significant improvements in the so-called school-age sector without adopting a strategy conducive to a general advance in the field of education. In this context, the Unesco Standing Group for Experimental Literacy Projects has stated that the term 'functional literacy' refers to the mechanisms of reading, writing and counting and other basic knowledge which will enable people to run their lives more efficiently and improve productive capacity and occupational skills. This approach involves a continuous, integrated, permanent process which should not be identified with any specific period of a person's life, even though it may assume a more intense form during the so-called school age.

Basic education as a function and responsibility of the community

A strategy designed to make the rural community assume responsibility for basic education should include promotional efforts with the following basic tasks: to help people to see education as a social act; to determine the various types of educator and the various forms of educational action; to establish training requirements in different subjects, for different individuals and groups; to achieve a situation in which each individual feels himself to be, and actually is, an educator and a student; to help to remove the paternalistic element from education and services; and to recognize local resources, the cultural strength of the community.

The school would then be seen as a supportive institution within the educational process and the teacher as a community worker involved in certain aspects of this process. The education of

children would not be confined to the school. The school is the community, the home, the family plot, the place of recreation.

The plan to entrust responsibility for basic education to the community is the most important innovation in rural development. When the adult population understands its implications, they will realize that they are included in a process of permanent education. The educational process will emerge, functionally, from the people's discovery of their own educational needs and their attempts to provide for those needs.

For years there has been disagreement in Latin America about rural education policy. Some maintain that there is a single form of education with a single set of general objectives. Others stress the need for structures, curricula and methodologies specially designed for the rural environment.

The enormous importance of the rural sector and agricultural production in developing countries would tend to substantiate the views of those who advocate a form of education geared to the needs of the rural community, since the solution of the serious problems of the agricultural sector in the immediate future will require the ruralization of the overall educational system.

In regard to rural education in particular, the problem has to be seen in terms of the need to localize education by closely relating it to the environment in question (in a form of environmentalization); here the term 'environment' refers to the interactional complex comprising ecological and biological factors. In view of the universality of its conception, this approach, which certain documents have termed 'ecological methodology', should be accepted as suitable for application to the overall educational system.

In a context where the division of labour is negligible, the danger of technical and agricultural education becoming an end in itself is far greater than in occupational situations where

the activities of each worker are clearly defined. The rural family ploughs, sows, tills the soil, and harvests, transports and sells its produce. Any of its members may be involved in the complete process of animal rearing.

One of the features of urban life is a more or less pronounced separation of work and the other aspects of daily life. Such a separation is extremely rare in the rural environment. At a certain time, the urban worker can hang up his working clothes and do something different. The members of an urban family are able to enjoy social, cultural or recreational pursuits which are quite unrelated to their work situation.

In a rural environment, on the other hand, the entire family continually has to concern itself with the crops and the animals. Whether the farm be small, medium-sized or large, it cannot close on certain days like a workshop or an office.

It is essential that a form of continuous education (basic, elementary and general) should be integrated into this work-oriented reality.

However, a concept of this magnitude calls for unequivocal political decisions. Many rural education projects, experiments and programmes have lost momentum and have had to be abandoned as a result of a loss of enthusiasm on the part of the political bodies responsible for them. A large-scale movement for rural education is a movement for improved living standards and equal opportunity. Thus, a man who becomes aware of the importance of good health will demand hospital facilities.

A different educational structure

It would be useful to consider in this context a number of changes in the local structure and operational mechanisms, with a view to determining regional support requirements. The question is whether the small, ill-equipped school which until now has been the principal, and sometimes the only, State facility

in small villages can be converted into a rural community-education centre. In broad outline, such a centre should:

Centralize community services.

Meet the needs of the school-age members of the community, using schools with one teacher for several grades.

Supply the necessary adult-education resources and organize basic education throughout the community.

Serve as a base for grass-roots organizations.

Organize and maintain technical and agricultural assistance.

Help mothers to educate their children and give them instruction in domestic economy.

Help young people to organize their own activities.

Set up a community larder in the area for children's meals.

Organize a small rural workshop to meet the needs of the community.

Provide central facilities for the reception of radio programmes and cultural TV programmes (where possible).

Promote purchasing and marketing co-operatives.

In short, an effort will be made to combine all the available resources and create an open supply of educational opportunities.

Priority for young people and women

In the rural environment, children go straight into adulthood, passing from the world of play to a life of duty and responsibility. For the young person living in a rural community who is called to premature adulthood, adolescence is a difficult and confusing period of life, fraught with frustrations and demands. A very low percentage of students leaving the rural school go on to secondary school or take up some form of apprenticeship on the family smallholding. In general, these youths find temporary jobs

with agricultural enterprises in the area or emigrate to the towns and cities, where they will have to face a hard life. However, emigration would generally seem to offer a better life than remaining in the rural environment.

The large-scale dissipation of energy and will which occurs in these countries through a lack of opportunity for young people may be compared only to the wastage of uncultivated land. Realistic schemes have to be devised to meet the needs of young people. These schemes should aim at encouraging economic, social and political involvement through the establishment of independent organizations which are completely under the control of the young people who belong to them.

Women play a particularly important role in the subsistence-farming areas of Latin America. Since the men are away in other regions for a good part of the year, working to earn sums which generally constitute the principal income of the group, women have to solve day-to-day problems and assume the role of head of the household. In the absence of the men, women have to tend the crops and the animals, feed and bring up their children and, in many cases, defend their meagre possessions.

Women are generally involved in all the production processes on the family plot and, sometimes, also on their neighbours' plots. However, certain jobs such as vegetable growing, looking after the smaller animals, and handicrafts are done almost exclusively by women. Thus, the women's involvement in pre-school education is crucial. Pre-school education in rural areas cannot be planned without taking into account the educative role of the mother. The idea of setting up pre-school institutions in areas with an isolated and scattered population is absolutely impracticable. Instead, the mothers themselves should be regarded as educators, and crèches and kindergartens should be organized in rural homes.

In this sense, women are students and edu-

cators, and the rural home is the natural learning environment in the areas with small farmsteads.

Effective participation of rural communities

It is sometimes difficult to obtain effective community participation in the organization of rural community-education centres.

Participation implies power-sharing within the social system and, obviously, effective involvement in the decision-making process. Initially, this will take the form simply of a basic effort towards joint action, in accordance with common objectives and solutions adopted by the group involved. In this way, the participatory process should evolve a form of group leadership, breaking away from the traditional pattern of leadership and the accompanying risks.

It frequently happens that the rural community is confronted with persons who have completed a process which puts them in a position to enforce their own options. We are proposing that the group itself should complete this process so that it can enforce the options which emerge from its own needs.

This endeavour has to be based on a form of inter-education which involves collective action. Accordingly, the traditional idea of the educator has to give way to a broader concept related to community needs.

In the first place, the teacher should master simple techniques enabling him to teach all the primary levels, so that a complete primary education can be obtained at any rural school.

Another sphere of activity is community guidance, which may be provided by the teacher, although it would be preferable for this work to be shared by the teacher and a rural community-education specialist. This specialist could be responsible for a number of communities, but it would seem preferable for him to be based in one community where he and the teacher would form a small team.

The rural community-education specialist would devote special attention to educational extension and the area of activity generally known as out-of-school activity. He will make progress in this regard only if he establishes a direct and permanent relationship with the families in the community.

Field work in rural communities should be supported and developed through a regional structure.

This regional structure should perform the functions of: co-ordination of all supporting resources; training and further-training programmes for personnel; guidance and technical assistance in the field and by correspondence; and production of educational materials for the entire area.

All these tasks require the co-operation of various bodies and services, including: the regional authorities of the ministry of education, the ministry of agriculture and the ministry of health, and the national planning agency, with a view to the co-ordination of resources and the advancement of the various institutions; universities, technological institutes, teacher-training colleges and agricultural colleges, agricultural experiment stations and agronomic research centres for personnel training and further training, guidance and technical assistance by correspondence, and production of educational materials.

Training the rural educator

Primary education in the rural community has traditionally been provided by graduates of teacher-training colleges. The training of these educators presents various problems which are far from being solved. It is not merely a question of designing a training course and arranging in-service training sessions at various intervals. There are difficulties associated with life and work in the rural community, salaries and other forms of remuneration, career-advancement

prospects and, lastly, the pressures from trade unions whose labour-promotion activities sometimes go against the interests of the rural community. In addition, rapid career advancement can be achieved only by attending courses in the cities.

All these factors are responsible for the considerable instability among graduates of teacher-training colleges and their steady exodus from rural areas.

A number of difficult questions also have to be answered. Is the graduate of a teacher-training college capable of working as a rural teacher? Has he been prepared for multi-level teaching? Does he have any idea of the economic and social realities of a rural community?

The training colleges should supply the rural sector with educators who are capable of considering teaching as an activity linked to life. For this purpose, they will have to rethink their courses in terms of life in the rural community.

In the light of these questions and needs, it may be advisable for the more direct elementary field work to be carried out, particularly in small villages, by personnel with a basic training (perhaps from the village itself) supported by technical assistance and continually supervised. In this context, we have to think in terms of an all-round educational worker who has a general knowledge of the special aspects of rural life. If such a person has the minimum amount of knowledge needed to raise him above the general level of the community, his activity can have extraordinary results.

At present, rural teachers are trained mainly at teacher-training institutes and agricultural colleges. These institutions should be incorporated into a rural education movement and should evolve methodological innovations which will be conducive to large-scale public participation in the inter-education process.

The effective integration of these innovations into the educational process will not be

accomplished merely through presentation, explanation and schematization in the lecture room. Future educators should be trained according to the methodology which they will later have to apply in the rural community.

In broad outline, this training should include the following techniques and procedures:

Training courses for teachers, extension workers and other rural educators should be oriented towards self-education and incorporate a wide range of self-instruction techniques. The emphasis should be on learning how to learn in order to teach others how to learn.

Future educators should acquire a first-hand knowledge of the rural environment: man in relation to surrounding nature. This involves learning to observe and understand nature and society, and discovering the problems which rural communities have to face in the use, conservation and renewal of their resources.

The operational seminar is a training method favouring contact with rural communities, co-ordination of all the participants in the educational process and in-service personnel training. It is derived from the World Literacy Programme promoted by Unesco.

Participants in the operational seminar engage in specific activities on the basis of a study of real situations and according to a programme which is constantly analysed and adjusted. Students undergo brief, intensive training (for one week, for example) in which action is closely linked to theoretical study. The aim of these seminars is to change the conception of the roles of educators, officials and members of the community, and the traditional methods applied in planning and carrying out educational work.

One of the features of this method is that the participants go out in small groups to discover the realities of the rural community. They try to observe and understand, and to gather information about the physical environment, natural resources, productive activities, living

conditions, community organization, available services and educational levels.

The students are not required to conduct a research project or a complete, detailed survey; their task is merely to establish contact with rural families in the home and work environment.

The various items of information gathered are organized, compared and discussed at general meetings open to all the members of the community.

In broad outline, the various stages of an operational seminar are a broadly-based study of the rural community and its educational situation; an evaluation of the process; integrated planning for the immediate future; and lastly, evaluation, formulation of conclusions and recommendations.

In all these cases, the methodology of these seminars should be adapted to the regional situation.

Participation of the educator in the daily life of the community

The teacher, his advisers and the curriculum specialists have to accept the objectives established by the community itself. The idea that a unified curriculum can be formulated in the classroom context and provide a basis for the discovery of relations in the surrounding world implies a divorce between the school and the community, since such curricula are designed outside the community or, at best, in the teacher's study. The process should be changed in such a way that the teacher becomes directly and permanently involved in the activities directed at the attainment of a community objective.

Participation of the educator in the various events of daily life should help the students to obtain a better understanding of the activities that are going on around them in the community.

Why does the bag of fertilizer have N20, P10, or K10 marked on it? What does 'Net weight 250 g' mean? What does 'Contents 75 cl' on that bottle mean? What is the meaning of the instructions on a packet of seeds, a can of fungicide, or a bottle of insecticide where the word 'antidote' is written?

This approach involves an educational process focusing on real problems, rather than an arbitrary and artificial presentation of subject-matter which is generally quite unrelated to the interests and needs of the community.

The teacher and the school should seek to involve all the families in the community in the task of creating a unified educational process, with formal and informal aspects, based on a combination of school and out-of-school activities. Accordingly, they should consult farmers, housewives, the authorities and officials, and arrange for groups from all levels to inspect local activities and visit homes, with specific exchange objectives. This new approach should stimulate a form of educational action that is integrated in the life of the community.

At times when the community is engaged in sowing, harvesting or tilling the land, the pupils could be encouraged to ask the adults about costs, loans, yield, the market, and the tech-

niques and materials used. Another possibility would be for the conventional homework exercises to be replaced by reports on which parents and children would work together.

The life going on around the school offers an abundant supply of teaching materials. Teachers and pupils have to go out into the community with a curious mind and an attitude of humility. A visit to a small village smithy can prove highly instructive. For example, a most important lesson is learnt while observing the technique used to fit an iron rim onto a wooden cart-wheel. The blacksmith explains: 'I cut a piece of iron three times longer than the width (diameter) of the wheel. I form it into a ring. It won't go on cold, so I heat it, it stretches, goes on and fits tightly once it gets cold.' The pupils have met the pi ratio for the first time and in an everyday context.

Is the news bulletin on the radio station which everyone listens to fully understood? Do the members of the community have any idea about the events, people or places which are mentioned? If the members of the community are to observe, investigate and analyse facts, they must approach life with a spirit of curiosity. The first person to adopt such a spirit should be the teacher.

Some thoughts on educational planning in Latin America

Planning models

It is usual for literature on planning in the educational sector in Latin America, when surveying the work to be done, to observe that planning has not produced the hoped-for results.¹ As a rule, such conclusions refer to specific aspects of educational development, which are not enough to provide a clear picture of the whole process. This article sets out to determine some of the theoretical components of educational planning viewed comprehensively. It seeks to find a pattern in the facts which will make it possible to understand what has been happening in Latin America in the past few decades as regards planning, and to have a grasp of current problems.

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PLANNING IN GOVERNMENT

First of all, we should bear in mind the interrelations of the three components of government: policy-making, administration and planning. Thus, any attempt to channel and/or change reality—including educational reality—has policy-making, administrative and planning aspects which are inextricably bound together, not as three different and parallel types of development, but as dimensions of one and the same process which vary with the advance of the overall process of channelling and/or changing reality or government, as it will be called in this article.

In fact, until a few decades ago, only the policy-making and administrative components of government were acknowledged; but the introduction of a new type of rational planning has brought with it new requirements: first, the gathering of large quantities of data—statistical, sociological, economic, pedagogical, etc.—and second, the ability to analyse such data, to devise coherently structured solutions and to forecast the consequences of every decision. The new rationality in planning should thus enable a nation to achieve optimal use of its human, material and financial resources in order to further the various objectives of the government, including the educational objective, which will be co-ordinated, through this new approach, with other areas of development.²

According to this analysis, the policy-making dimension seems to be fundamentally ideological, the planning dimension rational and the administrative dimension operational. Although it is generally recognized that there is a connection between policy-making and planning, they are usually considered to be separate processes that are occasionally linked in certain areas. Nevertheless, that planning is an aspect of government and one that is closely intertwined with the policy-making dimension is obvious from the constant demands that policy-makers put on planners even in purely technical matters.³ The establishment of a plan's objectives, the priorities of its goals and the formulation of strategies are all clearly policy-making functions, but they are absolutely essential to planning and unquestionably involved in it.

Finally, if planning is to bridge the gap between policy-making and administration, the administrative structure for which the plan is designed must be taken into account. In other words, programming and operational plans must be geared to the type of administration prevalent in the country. Similarly, the administrative structure must accept the planning function and act in harmony with it. As is apparent, any reform must take place in both dimensions of the process.

PHASES OF THE PLANNING PROCESS

Educational planning activities in Latin American countries display various phases, reflecting those to be found in the more developed countries. The first corresponds to what we shall call reactive planning,⁴ since it came into being as a reaction to the pressing problems of the sector. Consequently, reactive approaches were unilateral: in every case, a particular problematic situation was taken as a focal point, with the result that there was a fragmented range of priorities in educational planning. All the approaches usually found to be typical of planning in Latin America—human re-

sources, curricula, administration, social demands, etc.—correspond to the reactive phase of educational planning.

Nevertheless, other Latin American countries abandoned the reactive approach for a new phase, which may be called programme planning. This takes a wider view of the educational problem, and does not opt either for the quantitative aspects, as certain reactive approaches often do, or for the qualitative aspects, as others do, but aims at encompassing all these dimensions in an attempt at integral educational planning. It is programmatic in that its content does not refer to specific aspects; instead, it proposes a series of alternatives that may cover anything from a single sector or level of the educational system to the entire system itself.

A third phase, which might be called rolling planning, has emerged, but to date it has been developed only in countries outside the region. While programme planning represented a marked step forward as compared with reactive planning, its limitation lies in the fact that, even though it discards a rigid educational system in order to build another more suitable form geared to the development of society and to educational demands, it fails to realize that incessant changes and the acceleration of modern social and economic processes will render the new form obsolete within a few years. Thus the Scandinavian countries have entered a phase of educational planning in which the changes in structure, content and methods, and access to education, which have been the outstanding features of the reforms of the past decade, will be replaced by rolling planning, which will be self-regulating in response to the forces of internal change in the educational system, i.e. to the interaction between educational research and planning.⁵

There is therefore a need to rethink the concept of planning, which we define as a mechanism contributing to the built-in regeneration of the educational process. This implies changes in the behaviour of individuals and in

approaches to the tasks to be accomplished, and fundamental changes in the overall conception of education and its role in society. This is the final phase in the process that passes through the reactive and programmatic phases, where components such as participation and research are gradually incorporated, these being the determining factors in the rolling phase which must be attained.

SPECIFIC FUNCTIONS OF PLANNING

The most general function is that of preparing plans, an activity traditionally regarded as a purely technical exercise that had nothing to do with ideology or political involvement. In other words, planning was something distinct from the process of government. It was not considered to be one dimension of that process, but was looked upon as a set of practical tasks stemming from it. And although the gap between policy and administration includes all the tasks which have always been considered technical—the designing and formulation of plans, the carrying out of studies and research, the development of analyses and programmes, etc.—planning also calls for the incorporation of other activities which are regarded as essential to complete the spectrum.

Sensitization of the public to educational problems is another function of planning. The aim is to create a social demand for change by publicizing certain problems which must be tackled. Planning, for example, has been partly responsible for making Latin America more generally aware of the defects of the educational system. Thanks to the work of planners, many issues and problems, such as school wastage, repeating, absenteeism, regional disparities, etc., became the subject of political speeches and hence the focus of public opinion, thereby promoting broad awareness of the educational system's shortcomings and requirements.

The third function of planning is to serve as a laboratory of ideas. Although planning par-

ticipates in the process of government by determining the activities that are to implement a given policy, it also has its own field of action in which it compensates for deficiencies and provides feedback for the other dimensions. Thus, the quantitative and qualitative increase in education makes it necessary to propose foundations for alternative educational systems, and to reflect on the true utility of the educational services provided to each of the sectors of society, and finally to make long-term forecasts in the light of observed trends and their social consequences.

Lastly, it should be pointed out that, in order to attain these objectives, the institutional structure that has hitherto done the planning should be supplemented by others that are capable of carrying out the work planned. From this point of view, planning is a function of society, and its effective implementation depends on the organization of machinery based on the two distinguishing characteristics of this new approach, namely, participation and research.

PLANNING AND PARTICIPATION

Participation and research produce and maintain the internal drive of the planning function. A real process of government should try to get every national community to play a leading role in analysing and directing its own development. Only a process of this nature—developing authentically from the roots and not imposed from above—will bring about a change in public attitudes. It is also important to remember that changes of attitudes and participation are interdependent: as attitudes change, greater participation becomes possible, which in turn modifies people's expectation. So it is legitimate to claim that participation can become one of the most effective means of pursuing lifelong education.⁶

Marshall Wolfe, describing the main varieties of participation, its limitations and its

requirements, says 'the fact that so many institutional forms of participation have been under discussion for some time, spreading disillusionment, fear and suppressed resentment, is an obstacle to fresh creative efforts. Both the planners concerned with participation and the public at large have a right to be distrustful. The introduction of radically new standards does not look promising. National societies will continually have to return to a range of familiar institutions and techniques, in the hope that they will work better than they have done in the past'.⁷

It is useful to distinguish between the various roles that participation can play, depending on the context involved. In societies whose planning objectives do not challenge the values of the dominant system, i.e. in those where the objective contemplated is no alternative to what already exists, participation is bureaucratic and tends to break down resistance to the programmes proposed. Experience of this kind emphasizes the role of participation in the instrumental aspects of the planning process, i.e. those which are closer to the administrative dimension and farthest from the goals and objectives proposed by the policy-makers. But when an objective contemplated in the plan presupposes a change in existing social relations, implying that participation is desirable as a social principle, it ceases to be a purely administrative mechanism and becomes an instrument of policy. Its influence then helps to determine ways of dealing with the specific needs of the community and the type of education required.

Similarly, in societies with a broad political and social consensus and democratic objectives, participation can be used to bring about a gradual adjustment of conflicting interests. Thus 'the Swedish experience shows reform planning to be one aspect of democratization', since individuals from widely differing social groups (politicians, members of the professions, students, scientists, etc.) took part in the preparatory work involved.⁸

In sum, the planning process requires the participation of both the educational authorities and the general public. Administrative staff at all levels should join forces with the public in order to attain levels of micro-planning conducive to the formulation of specific projects. To reach this goal, there will be a need not for the usual sophisticated methods but for simpler, more concrete and more specific methods of planning, social surveying and information processing.

PLANNING AND RESEARCH

Planning calls for various types of research appropriate to each function involved and a steady input from research.⁹ Both in the prior assessment and in the formulation of alternative objectives, in programming and in evaluation, strictly scientific criteria should be used, supplemented by the lessons of practical experience in the social and educational sphere. Since the purpose of the assessment is to understand the problems and the situation to be covered by planning, not only the logic but also the methodology of research must be given priority at this stage. Nevertheless, if the planning process is to be effective, we must adopt not only a quantitative approach but also approaches which seek to grasp the problems and their principal causes.

The findings of research are likewise essential to policy-making and goal-setting, both in order to devise the various alternatives and the infrastructure on which to establish them and in order to evaluate their possible effects and the reliability of the conclusions to be drawn therefrom. Targets have generally been established on the basis of very scanty empirical data or the results of broad indicators, without sufficient knowledge of their determining factors.

Once a plan has been implemented, the planning process must embark on a final phase, namely, evaluation. This is a phase which, like the prior assessment, is characterized more by

the need for knowledge than by the need for action; it is in such cases that research is most closely involved with planning. Evaluation should comprise an assessment of what has happened in the course of implementation and a subsequent comparison with the planned objectives, thereby revealing any deviations and their causes.

In the field which we have called laboratory of ideas, Latin American planning is obviously deficient. Apart from the early stages and certain periods, usually brief, in a few countries, planning has not played a dynamic part in the formulation of new ideas and concepts regarding education and its role in society, or in the updating of educational policies and strategies, or in the initiating of new forms of organization and content in the formal and non-formal system, etc. But research too could provide the planning process with inputs concerning the alternative solutions which are being attempted. The lack of definite action—a constant factor in the great majority of plans devised in the region—may be due in large measure to the fact that both research and experiment have had little effect on the overall structure of the educational system. A series of pilot experiments with specific controls would reveal the erroneousness of certain proposals on the basis of their routine activity or their incomplete experience, put forward by individual educators, proposals which as a rule turn out to be impracticable. The new forms of operation already being practised in education should become more widespread, and arrangements should be made to discuss them and to disseminate them throughout the system.

If it is to be effective, educational planning must incorporate dynamic components, capable of producing alternatives which will increase society's degree of creativity. To be sure, the attempt to innovate implies the search for alternatives. Their evaluation is extremely important, since those which prove valid can be incorporated at the programming stage, provid-

ing practical ideas for possible projects and clearly determining the difficulties involved in their implementation and generalization.

The planning process

This brief assessment, which takes account of the new concepts postulated, is only an approximation, owing both to the summary form in which it is presented and to the complexity and variety of the regional situations and the development of planning in each of the countries. Nevertheless, such an approximation is necessary if we are to evaluate, even in broad outline, what has so far been achieved in the area, the main problems to be tackled and the prospects of making rolling planning in education a reality.

STAGES OF THE PROCESS

Bearing in mind the importance and the range of the planning process in Latin America, it is possible to distinguish various stages in its development. The first extends from the time planning began until the early 1960s, the second occupies the second half of that decade, and the third, depending on the country concerned, stretches from the late 1960s or early 1970s to the present.

During the first stage, in various countries of the region, small educational planning offices were set up, usually at a lower institutional level, within the structures of the ministries of education. Their staff had received basic teacher training, and in a very few cases they also had planning qualifications. These early groups were firmly wedded to the idea that planning was the ideal means of bringing about social change, and hence they were able to cope with the strong resistance and objections put up by administrators and teachers in the educational system. On the whole, the excessive rigidity and many ongoing errors of both were obvious.

Despite the concern to stress the word 'integral' in connection with planning, it was impossible to define it from a conceptual and methodological point of view. Emphasis on the concept of integrality arose as a form of opposition to the piecemeal reform of the educational system much in fashion in previous decades. During this stage, in which very few plans were produced, analyses of educational systems were indeed carried out, but they, too, failed to be true *diagnósticos*. They were, at all events, the first exercises in quantitative description of the state of education in each country, and their preparation necessitated a completely different use of the relevant statistics.

Besides these early efforts, parallel activities emerged in national planning bodies in the first half of the 1960s, though they were limited to a few pages on education tacked on to the initial development plans. Those who took these measures saw education as a peripheral area of planning, since the plans were concerned fundamentally with economic problems. This way of thinking prompted studies which established educational goals in terms of human requirements, reflecting the conception of education as a dependent variable that the prevailing pro-development ideology of the time associated with the technical and instrumental function assigned to education.

During the second stage, the educational planning devised in the ministries of education and that carried on by national planning bodies continued to move in the same direction. Emphasis was placed on methodologies derived from economics—human resources, econometric models, rate-of-return, etc.—and more specifically pedagogical methodologies were disregarded. Generally speaking, the integration of educational planning with overall planning made progress.

During this period, major large-scale appraisals were carried out, and the first educational plans were developed, sometimes as part of development plans and sometimes inde-

pendently. Training for planners, mostly provided by international bodies, began to be more widely available, and every country had a significant number of specially trained technicians. Professionals in other disciplines, especially economists, sociologists and statisticians, joined the educational planning teams.

The third stage, stretching from the late 1960s or early 1970s to the present day, presents a much less uniform picture than the two previous stages. There are countries where planning is becoming really important, usually when it seems linked to innovative projects in a relatively well-defined political and ideological context and when the emphasis placed on overall educational reforms is combined with efforts to structure the programming. Somewhat later, decentralization projects appeared, together with the rise and adoption of school-location planning, which were all attempts at regionalization partly successful only in countries where planning, rooted in a political context, guaranteed their feasibility to a certain extent. Many of these projects petered out because they were not sustained by planning machinery capable of overcoming the limitations of that used previously.

In view of the stages in educational planning outlined above, it can confidently be stated that in Latin America only the reactive planning stage has actually been completed, and only in some countries and in specific circumstances have programmed planning activities been successful. There have been no experiments or endeavours in the field of rolling planning. For this reason, both in countries that are still at the reactive stage, which is probably drawing to a close, and in those that are making programmed experiments, it would appear necessary to speed up the gradual introduction of research and participation machinery—if only in part—in order to revitalize their planning processes and encourage their advancement towards the later stages.

THE PRODUCTS
OF EDUCATIONAL PLANNING

The products of educational planning in the region are many and varied. The first efforts were not plans but documents of differing content with one feature in common: they all aimed at more objective and precise descriptions of the problems of education than those which had been customary hitherto.

Among those early planning documents, there were two fundamental types: the studies and assessments (*diagnósticos*) and the chapters on education in the overall development plans; later, sectoral educational plans were to emerge. The studies and *diagnósticos* gave sharper precision to the analyses proper: similarly, they led to the elimination of spurious problems previously regarded as important, and highlighted those which were, in fact, essential. The first development plans included chapters on education in order to cover all areas of government, but those chapters were by no means part of the overall plans. Social aspects (health, housing and education) not only were not integral elements on a par with economic aspects, but were not even co-ordinated with one another. Towards the end of the 1960s, documents appeared which could with some justification be called plans, because they displayed the specific characteristics of a plan: assessments, objectives, policies and goals, programmes, subprogrammes and projects.

The plans produced in the region have some of the characteristics peculiar to reactive planning: comprehensiveness and generality of the analyses, heterogeneity of content, diversity and lack of integration of the aspects considered, and a marked differentiation between quantitative and qualitative factors; and lastly, a lack of coherent proposals for educational changes along clearly defined policy lines.

A typical plan consists first of an assessment, followed by a statement of objectives and policies, and concluding with a description of the

curricula. More detailed texts are infrequent, and, although it is common to come across a chapter on financing, it is usually not clear how the costs set out were arrived at. As a result, the expenditure forecasts usually exceed the real investment possibilities.

An unduly general approach is often adopted in assessments, policies and goals, as well as in the programmes of such plans, so that it becomes impossible to implement specific projects and actions in practice, since the plans portray only an average situation and are not adaptable to any particular state of affairs.

Many plans are lacking in internal coherence: either the problems pointed out in the assessment are not taken into consideration in establishing the objectives and policies, or they are not dealt with at the programme level. On the other hand, it often happens that the objectives and targets of the plan bear no relation to problems described in the *diagnóstico*. Another striking inconsistency is the presentation of standard-setting and operational aspects in a disorderly, fragmented fashion, so that they do not provide guidance, nor is it feasible to implement them.

Almost all the plans encompass a great many aspects and problems and a wide variety of measures intended to cope with them. Such a multiplicity of fragmented proposals does not constitute an adequate basis for a plan: no priorities are indicated, nor are problems and lines of action clearly brought out.

In some countries we find efforts being made to consider aspects which are not strictly educational; but instead of being combined with the educational aspects they are usually dealt with separately. This is apparent, for example, when information on manpower, population, economic growth, etc., is included piecemeal in separate chapters, without being related to the specific content of the education plan. In many cases, qualitative approaches are made to aspects which call rather for treatment based on quantitative, adequately processed information (social exclusion, human resources of the system, social

and regional differences, etc.); conversely, fundamentally quantitative measurements are made of aspects which also require a qualitative type of analysis (school outputs, productivity of the system, etc.).

Analysis of the plans on which this study is based—including a sizeable portion of those produced in the region in the past two decades—justifies the assertion that there has been a gradual technical improvement in their formulation. For example, long-term plans have been drawn up which give an objective picture of the sector, strategic plans have been formulated which are increasingly broken down into programmes and projects, and operational plans have been produced which fill certain gaps in the planning system. Nevertheless, this technical improvement has in most cases failed to go beyond the characteristics peculiar to the reactive phase of planning or to solve the problems connected with the implementation of the plans, already mentioned in this analysis.

RELATIONSHIP WITH EDUCATIONAL ADMINISTRATION AND RESEARCH

Specialists in the area take the view that the main feature of the relationship between planning and administration has been indifference, when it has not been conflict, and that this has been caused by mutual distrust and jealousy. The planners often set out with an erroneous conception of their task, seeking to perform functions that were beyond them because they were specifically administrative. Similarly, they usually disregarded the political and administrative structure of the planning process, and failed to take advantage of the know-how of the administrators, which might have helped them to make up for the impractical and vague nature of many plans.

The administrators, in turn, helped to aggravate this situation by confining themselves to reproducing their traditional administrative patterns, which had no place for planning. Plan-

ning specialists occupying posts that were relatively high in the bureaucratic structure met strong resistance from administrators. The objections put forward were, *inter alia*, lack of administrative experience, youth, unfamiliar criteria and a different conception of what ought to be done in the sector.

When new standards of rational organizations were introduced, different from those taught by experience, both planners and administrators failed to understand the need to combine the new professional attitudes of the former—which might make it possible to rejuvenate education and gear it to the present-day needs of Latin American society—with the experience of the latter, which would probably have furnished real and viable machinery for the implementation of the changes proposed.

However, in some countries, and as a result of certain specific experiments, this situation has gradually changed over the past few years. Thus, there are various examples of the old bureaucratic administrative systems being enriched by the incorporation of more rational standards of programming; and while some of these innovations have not advanced beyond the experimental stage, others have already begun to take concrete shape. It is also important to mention changes in the way budgeting is being handled as a result of the adoption of programme budgeting, which makes it possible to organize expenditure and to systematize the use of resources in accordance with the priorities established in the objectives. However, when the planning system is not very effective, this change in budgeting becomes a mere formality and does not result in better organization of the administration and budgeting of education: in order to bring this about, programme budgeting should be made a part of educational planning as a whole, and the latter should present its plans broken down into specific programmes and projects.

The introduction of educational planning brought a more rational approach to analysis

of the fundamental problems in the sector, thanks to the influx of more precise information set in an interdisciplinary framework. At all events, the real influence of planning in improving the level of education has differed from country to country, depending upon historical circumstances, and its action seems to be favourably affected by the political significance which governments attach to planning.

Planning has also made it possible to involve specialists from other disciplines in educational administration. To date, these new contributions have been turned to relatively little advantage, since disciplines which are important to education—such as the political sciences, social psychology and anthropology—have not yet participated in it. Economics has made certain limited contributions, but not in terms of a general theory of development. Other disciplines, such as sociology, have disregarded major problems, as, for example, the study of the teaching profession. We may therefore say that these contributions, instead of fusing into an interdisciplinary approach and outlook, expressed the isolated points of view of each separate discipline. Nevertheless, a critical mass of professionals did come into existence and would be available when the time was ripe; accordingly, when an opportunity arose to use them, meaningful projects took place.

In Latin America, educational research bears very little relation to planning, since research activities are few, and planners seldom avail themselves of their results. Even when it is obvious that there has been a relative development—e.g. when the number of State-run and private centres has increased, or there are more trained personnel, etc.—the methodological approaches and the themes dealt with reveal obvious limitations. Approaches and research strategies must therefore be devised which are capable of lending support to the fuller use of the planning process as proposed.¹⁰

Another dichotomy between research and planning in the region results from the fact

that no research is being done on the priority requirements of the planning process; instead, study is devoted to themes selected on the basis of other criteria. Nor is educational innovation receiving any stimulus or guidance, with the result that it is the exception rather than a systematic policy. Very often, innovations of various kinds (in curricula, methods, educational organization, staff, etc.) stemming from initiatives by individuals or groups within the community, teachers or technicians with a dynamic outlook, fail to make any headway owing to the limitations and restrictions imposed on them by the habitually rigid structure of the educational system or because, as they expand, they are deflected from their original purpose, through having failed to foresee the conditions needed for their adequate functioning.

The two driving forces of the planning process—research and participation—are still in their infancy in Latin America. Rolling planning requires both in order to put a systematic policy of innovation into practice, but it is equally necessary to encourage innovation at the grass-roots level of educational systems and to follow them through and evaluate them, in order to capitalize on them as agents of change.

Notes

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2. G. C. Ruscoe, *The Conditions for Success in Educational Planning*, p. 19, Paris, IIEP/Unesco, 1969.
3. Edgardo Boeninger K., *Procesos Sociales, Planificación y Políticas Públicas*, ILPES, Seminar on Planning and the State, Bogotá, 10 to 12 June 1976, mimeo.
4. OECD, *Educational Policies for the 1970s, General Report*, Paris, 1971.

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5. See: OECD, Conference on Policies for Education (1969), Paris; OECD, *Reviews of National Policies for Education: Sweden*, Paris, 1969; and OECD, *Reviews of National Policies for Education: Norway*, Paris, 1976.
6. Norberto Fernández Lamarra, *Estrategias y Perspectivas de una Metodología de Planificación de la Educación en Relación con la Dinámica de Población*, Santiago de Chile, Unesco Regional Office for Education in Latin America and the Caribbean, October, 1975.
7. Marshall Wolfe, 'Para Otro Desarrollo: Requisitos y Proposiciones', *CEPAL Review*, No. 4, second semester 1977, Santiago de Chile.
8. Sven Moberg, *The Problematics of Democratization in Formulating Educational Reform: The Experience of Sweden*, Paris, Unesco, ED.77/Conf. 628 Ref. 2, September 1977, mimeo.
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Universal primary education in developing countries: a statistical review

Birger Fredriksen

The provision of universal primary education has had a prominent place among the many priorities for development in the field of education during the last two decades. The purpose of this article is, first, to shed some light on the progress made towards this target during the period 1960-75 and, second, to highlight some consequences, should these trends continue to 1985. The article's concentration on the quantitative aspects of education development does not, of course, imply that this is the only interesting side. The increase in student numbers during the period 1960-75 was in practically all countries accompanied by comprehensive or partial changes in the structure of educational systems as well as in the content of the education provided. The need for reforms was felt at all levels of education and in all countries regardless of their level of economic development.¹ Nevertheless, quantitative trends and projections represent an indispensable part of the total information required for clarifying the choice between alternative patterns of development and for monitoring progress towards stated objectives.

Development of primary school enrolment, 1960-75

Table 1 shows the development of primary-school enrolment between 1960 and 1975 in the More Developed Regions (MDR), Less Developed Regions (LDR), Africa, Latin

America and South Asia. The composition of the region is explained at the bottom of the table. All figures exclude the People's Republic of China, the Socialist Republic of Viet Nam and the Democratic People's Republic of Korea.

The table illustrates the enrolment expansion which took place during this fifteen-year period in developing countries. Column 8 shows that the number of primary-school pupils increased by 128 per cent in Africa, 107 in Latin America and 98 in South Asia as compared to 6 per cent in the MDR. Studying the enrolment growth during each of the five-year periods covered by this table, we note that the enrolment in the LDR increased by some 44 millions during the period 1960-65 as compared with 38 millions between 1965 and 1970 and 40 millions between 1970 and 1975. We note further that the slowdown in enrolment growth between 1965 and 1970 was mainly taking place in South Asia while the increase between 1970 and 1975 was to a large extent caused by strong enrolment growth in Africa.

Turning now to columns 5-7 of Table 1, we see that the average annual rates of growth declined for all regions during these three five-year periods, with the exception of Africa for the period 1970-75. The lower growth rates for Latin America after 1970 are to a large extent due to the fact that several countries in this region reached, or were approaching, universal primary education by 1970. Naturally, when all children of primary school age are enrolled, the growth of enrolment will be very similar to that of the corresponding population age-group. Further, the relatively high rates for Africa are partly explained by the fact that many countries in this region started at very low levels

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TABLE 1. Growth of primary-school enrolment 1960-75, both sexes

Region	Number of pupils enrolled (millions)				Average annual rates of growth			Percentage increase 1960-75
	1960	1965	1970	1975	1960-65	1965-70	1970-75	
	1	2	3	4	5	6	7	
MDR ¹	127	137	142	134	1.6	0.6	-1.1	6
LDR ¹	116	160	198	238	6.6	4.4	3.8	106
Africa	19	27	34	44	6.5	4.9	5.5	128
Latin America	28	36	47	57	5.6	5.4	3.9	107
South Asia ²	69	96	116	136	6.9	3.9	3.3	98

1. The grouping of countries into MDR and LDR follows that of the United Nations Population Division and is built on fertility levels. According to this criterion, nine regions, Japan, the four European regions, U.S.S.R., Northern America, temperate South America (Argentina, Chile and Uruguay) as well as Australia and New Zealand, belong to the MDR. All other countries are included in the LDR.
2. South Asia includes all Asian countries except the People's Republic of China, the Socialist Republic of Viet Nam, the Democratic People's Republic of Korea, Japan, the Republic of Korea, Mongolia and Hong Kong. The former three countries had to be excluded due to lack of data on enrolment. Data for the latter four countries are included in the totals for LDR and MDR.

of enrolment in 1960. It is nevertheless worth noting that while both Africa and South Asia experienced a marked shift towards lower growth between 1965 and 1970 as compared with the previous five-year period, the growth in Africa picked up again between 1970 and 1975 while that of South Asia continued to decline. As 60 per cent of all the primary school pupils in the LDR in 1965 were in South Asia, this slowdown had serious effects on the progress made towards universal primary education in the LDR between 1965 and 1975. We shall address this issue in further detail in the next section.

Progress towards universal primary education during the period 1960-75

During the period 1960-75 most developing countries established achievement of universal primary education as one of their priority targets for national development. Unesco encouraged this process by convening a number of

regional conferences on education which recommended quantitative targets for the expansion of primary education. Thus 1980 was agreed upon as the target year for enrolling all children of primary-school age in Asia (Karachi in 1960). The same target year was agreed upon by African States (Addis Ababa in 1961) and Arab States (Tripoli in 1966), while the Santiago Conference in 1962 called upon Latin American countries to achieve this objective by 1970. We shall in this section present enrolment ratios permitting us to shed some light on the extent to which the enrolment growth shown in Table 1 led to progress towards these targets. As such ratios must be interpreted with caution, it is necessary to start by a brief discussion of their limitations.

Assessments of the above type are generally based on the gross enrolment ratio for primary education. This ratio is obtained by dividing the total number of pupils enrolled at this level by the number of children of primary school age. It gives a rough indication of the extent to which a country's primary schools have sufficient capacity to enrol their client population.

Since the ratio is inflated by the inclusion of repeaters and late entrants and since it conceals the high drop-out rates common to most developing countries, the indication is approximate.

When ratios of the above type are calculated for regions, i.e. groups of countries, two approaches are available. The first consists of calculating unadjusted enrolment ratios, i.e. ratios which disregard the fact that entry age to, and duration of, primary education varies between countries, selecting for the group the structure most frequent among the countries included. This is the most common procedure for calculating enrolment ratios for regions and continents. Ratios of this type are shown in Table 2 where the age-group 6-11 years has been used for the population of primary-school age, since most developing countries have six grades at this level and the most common starting age is 6 years. We may interpret these ratios as indicators of the capacity of the region's primary schools as compared to a system with six grades of primary education.

The advantage of unadjusted enrolment ratios is that they give an indication of capacity which is comparable between regions. Their weakness is that they neglect the fact that some regions need lower capacity to attain universal enrolment than other regions because their duration of primary education is shorter. Thus, although six grades is the most common duration in developing countries, the 'average' duration is shorter in South Asia than in Africa, where it in turn is shorter than in Latin America. The reason is that some of the most populous countries in South Asia have five grades (e.g. India, Bangladesh, Pakistan), while some of the most populous countries in Latin America have eight grades (e.g. Brazil, Bolivia, Chile). This aspect is taken into account by calculating adjusted enrolment ratios for regions, i.e. ratios adjusted to the duration of, and entry age to, primary education in each of the countries in the region. Figure 1 below presents such ratios. Thus, in the following discussion we shall em-

ploy both unadjusted (Table 2) and adjusted ratios (Figure 1), since they illustrate different aspects of the development of primary education during the period 1960-75.

With the above discussion in mind we now turn to Table 2, which gives unadjusted enrolment ratios for the regions shown in Table 1 as well as for the twenty-nine countries classified by the United Nations as the Least Developed Countries (LDC), and for the seven Sahel countries.

Table 2 shows that, although the increases in enrolment ratios were substantial during the period 1960-75 for all developing regions, they were far more modest than the corresponding increases in primary-school enrolment shown in Table 1. The reason is that the LDR's population of primary-school age increased by some 55 per cent during this fifteen-year period. This compares to 1 per cent for the MDR. The importance of the population factor may be illustrated by the following example. Assume that the LDR's school-age population in 1975 had remained at its 1960 level, which was roughly what happened in the MDR. In this case, the enrolment actually reached in the LDR in 1975 would have given an enrolment ratio of 117 per cent, i.e. a primary-school capacity exceeding considerably that required to enrol all their children aged 6-11 years. However, due to rapid population growth, the capacity actually reached in 1975 corresponded only to about three-quarters of the size of this age-group.

Table 2 further shows large variations in enrolment ratios between developing regions both with respect to magnitude and changes over time. Africa, which during the 1960s had a considerably lower ratio than South Asia and Latin America, had by 1975 reached South Asia. Latin America continued to have a ratio considerably higher than the two other regions and had in 1975 a primary-school capacity exceeding that required for enrolling all the region's children aged 6-11 years. As regards the

TABLE 2. Enrolment ratios for primary education, both sexes (percentages)¹

Region	1960	1965	1970	1975
MDR ²	114	118	120	120
LDR ²	57	66	71	76
Africa	45	54	59	69
Latin America	81	90	102	111
South Asia	55	64	66	69
29 LDC ³	26	32	39	46
Sahel countries ⁴	12	22	24	27

1. These ratios are unadjusted enrolment ratios obtained by dividing the total enrolment in primary education by the population aged 6-11 years.
2. See definition in note to Table 1.
3. These 29 countries are: Afghanistan, Bangladesh, Benin, Bhutan, Botswana, Burundi, Central African Empire, Chad, Ethiopia, Gambia, Guinea, Haiti, Laos, Lesotho, Malawi, Maldives, Mali, Nepal, Niger, Rwanda, Sikkim, Somalia, Sudan, Tanzania, Uganda, Upper Volta, Western Samoa, Yemen Arab Republic and Yemen Democratic Republic.
4. These countries are: Chad, Gambia, Mali, Mauritania, Niger, Senegal and Upper Volta.

twenty-nine LDC, we note that, in spite of a rapid enrolment increase during this period, by 1975 their primary-school enrolment corresponded to less than half of their children aged 6-11 years. For the seven Sahel countries the ratio was only 27 per cent.

A disturbing aspect of the development of primary education during this period is the increasing disparities between some of the developing regions. Thus, in 1960 the enrolment ratio for Latin America exceeded that of South Asia by 26 percentage points and that of Africa by 36 points. In 1975 these differences had increased to 42 points for both continents. In 1960, the average ratio for Africa was 19 points higher than that of the twenty-nine LDC. In 1975 this difference had increased to 23 points. Similarly, the difference between the average enrolment ratio for the LDC and the seven Sahel countries increased from 14 points in 1960 to 19 in 1975.

The enrolment ratios shown in Table 2 mask

large differences between individual developing countries in respect to level of enrolment as well as regards duration of primary education. As the place available does not allow us to analyse in detail the country-by-country development, Figure 1 provides a summary classification of 104 developing countries according to the level of enrolment ratio attained in 1975. It is important to note that, in order to take into account differences in educational structure between countries, Figure 1 is built on adjusted enrolment ratios. Thus, for example, in calculating this ratio for a country having five grades of primary education with a starting age of 5, the age-group 5-9 years was used, while different groups were used for countries with different structures. The horizontal axis shows the enrolment ratio attained, the vertical axis shows the percentage of the LDR's population of primary-school age living in countries having attained a given ratio, while the figure inside each bar shows the number of countries having attained this ratio. The whole should be read as follows: in 1975, 16 per cent of the LDR's population of primary-school age lived in 35 countries in which primary-school capacity exceeded that required to enrol all children of primary-school age; 14 per cent of the primary-school population lived in 15 countries in which capacity corresponded to 90-99 per cent of their primary-school age population, etc. We note that 14 countries, representing 6 per cent of the LDR's school-age population, had enrolment ratios below 40 per cent while 70 countries, representing 80 per cent of the school-age population, had ratios exceeding 70 per cent. To summarize, we may say that in 1975, 48 developing countries, representing 30 per cent of the LDR's population of primary-school age, had reached, or were approaching, universal primary education (i.e. had enrolment ratios exceeding 90 per cent).

We may now calculate adjusted ratios of the type shown in Figure 1 for the major developing regions. For 1975 this gives 79 per cent for the

Trends and cases

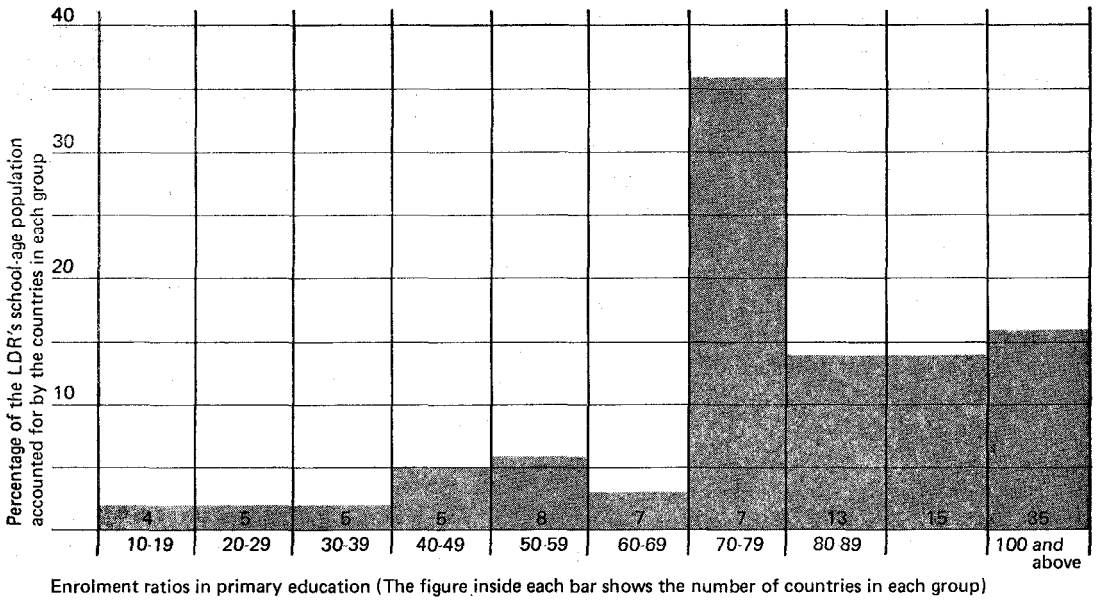


FIG. 1. Classification of countries according to current enrolment ratio and percentage of LDR's population of school age (1975).

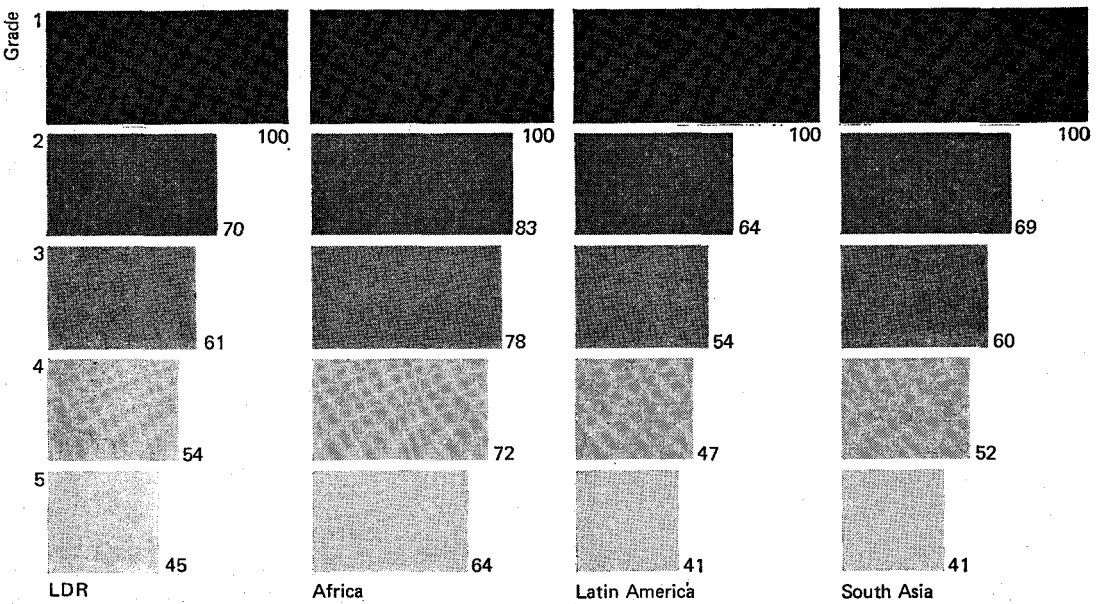


FIG. 2. Percentage of the pupils enrolled in grade 1 in 1970 which reached grades 2, 3, 4 and 5, respectively. Both sexes.

LDR, 66 per cent for Africa, 78 per cent for South Asia and 97 per cent for Latin America. Comparing these figures with the unadjusted ratios shown in Table 2, we note some interesting differences. Thus, the adjusted ratio for South Asia is considerably higher than the unadjusted one, since 68 per cent of the school-age population in this region lived in countries having only five grades of primary education. In contrast, for Latin America the adjusted ratio is considerably lower than the unadjusted one (97 per cent as compared to 111 per cent) since 40 per cent of this region's population of primary-school age belongs to countries having eight grades of primary education. For Africa, the adjusted ratio is slightly lower than the unadjusted, as 20 per cent of the African population of primary-school age lived in countries having seven grades of primary education. We note that while Africa and South Asia had the same unadjusted ratio in 1975 (i.e. 69 per cent), when the differences in average duration of the two regions' primary education are taken into account the ratios are quite different (i.e. 66 per cent for Africa and 78 per cent for South Asia). To summarize, when differences in duration are accounted for, Latin America had in 1975 sufficient capacity to enrol about all children of primary-school age. The capacity in South Asia was about 78 per cent, while that of Africa was only 66 per cent of this continent's population of primary-school age.

In ending this section we shall return to the regional enrolment targets discussed in the beginning. Unfortunately, the enrolment ratios used when establishing these targets differ between regions and are not always comparable to those used in this article. We shall therefore limit our assessment to the regional objectives expressed in the Karachi Plan for the development of primary education in Asia.² The targets were expressed in terms of a primary-school cycle of seven grades and the age-group 6-12 years was taken as the primary-school age-group. Reclassifying the data presented

here into this structure gives, for the Asian region as defined in the Karachi Plan, the actual, target and projected enrolment ratios for primary education shown in Table 3.

TABLE 3. Primary-education enrolment ratios for the Asian region

	1970	1975	1980
Actual	66.3	68.6	71.8 ¹
Target	72.0	81.0	90.0
1. Projected.			

We note that the target for 1970 was far from being reached in 1975 and will barely be reached by 1980 if past enrolment trends continue.

Internal efficiency of primary education in the LDR

Table 2 showed that in 1975 a number corresponding to 76 per cent of the children aged 6-11 years was enrolled in primary education in the LDR. However, enrolment ratios do not tell much about actual educational attainment. The performance of an educational system should be measured in terms of the quantity as well as the quality of output and not in terms of the quantity of input only, e.g. by counting the number of pupils enrolled.

Although the many objectives of school systems are difficult to define in meaningful, measurable terms, for primary education one might argue that one of the main objectives, possibly the main one for the first few grades, is to make the pupils literate. This requires not only that children enter the first grade but also that they remain enrolled for a sufficient number of years.

As regards the first factor, statistics on the

number of children entering grade 1 are not available for all developing nations, since many countries do not yet collect data allowing us to distribute the total enrolment in this grade between new entrants and repeaters. An indication of the intake capacity of primary education may nevertheless be obtained by calculating the ratio between the total enrolment in grade 1 and the population aged 6 years, the latter age-group being taken to represent the population of admission age. Ratios of this type are given in Table 4.

TABLE 4. Ratio between grade-1 enrolment and population aged 6 years

	1965	1970	1974
LDR	1.14	1.13	1.15
Africa	0.71	0.77	0.85
Latin America	1.76	1.77	1.74
South Asia	1.12	1.09	1.09

The table shows that for the total LDR the number of pupils in grade 1 was larger than the population 6 years old for all three years included. We may hence say that the intake capacity of the first grade of primary education in the LDR would have been high enough to enrol all children of admission age had there been no repeaters or late entrants. The table shows again very large differences between the three developing regions. The intake capacity of Africa increased considerably between 1965 and 1974, when it represented 85 per cent of the continent's population aged 6 years. For Latin America and South Asia the ratio appeared to be levelling off during this period. It remained, however, above unity for both regions, the reason being enrolment in grade 1 of repeaters and entrants outside the official admission age-group. We note the very large ratio for Latin America. Official data indicate that about 20 to 25 per cent of the enrolment in grade 1 in this region are repeaters. This would imply

that this large ratio is caused mainly by late entrants.³

In view of the high level of new admissions suggested by Table 4, we may now ask why the enrolment ratios shown in Table 2 are not higher than what they actually are. The answer is the high drop-out rates common to developing countries. To illustrate the seriousness of this problem, the progression through the first five grades of primary education of the pupils enrolled in grade 1 in 1970 is illustrated by Figure 2. We see that only about 70 per cent of these pupils reached grade 2, 61 per cent reached grade 3, 54 per cent reached grade 4 and about 45 per cent reached grade 5. In other words, 30 per cent of the pupils enrolled in grade 1 in the LDR in 1970 dropped out before reaching grade 2, and 55 per cent dropped out before reaching grade 5. Thus, if completion of grade 4 is used as an indication of the level of education required to become and remain literate, only about half of the children entering primary education in 1970 attained this level. The level of drop-out was highest in Latin America and lowest in Africa.

The low retention shown above casts serious doubt on the extent to which the educational systems in some LDR, despite their rapid growth of enrolment during the last fifteen years, were able to tackle successfully the problem of reducing illiteracy. It also leads one to question the significance of high enrolment ratios if a large proportion of the children drop out before even becoming literate.

Another aspect of education wastage is repetition. Although to repeat a grade may be valuable to a pupil whose performance is judged to be below minimum requirements, repeaters use resources which could have been made available to children who are not yet enrolled at school. In addition, repetition increases the costs per pupil. To illustrate the magnitude of this phenomenon in the LDR, it has been estimated that, in 1970, repeaters constituted about 15 per cent of total enrolment in primary

education in Latin America, 16 per cent in Africa and 18 per cent in South Asia. In other words, the number of children of primary-school age admitted to school could have been increased by some 15–20 per cent that year in the LDR, without increasing the costs, had there been no repetition.

Projections to 1985

So far this article has examined education trends during the period 1960–75. The purpose of this section is to shed light on some consequences of continuing these trends until 1985. The projections presented below were prepared within the framework of the Unesco Office of Statistics Programme on Education Projections. Their purpose is not to show how enrolment will or should develop in the future, but to suggest what might happen if the trends observed from 1960 onwards were to continue along their main lines until 1985.⁴ Although conditional, these projections have the merit of providing for the first time a systematic study of the implications of continuing past trends for practically all countries in the world.

Figure 3 shows that continuation of trends would imply a primary-school enrolment capacity for the LDR corresponding to about 84 per cent of their population aged 6–11 years in 1985. There would continue to be large and often increasing disparities in enrolment ratios between different developing regions. Thus, the gap between the enrolment ratios for Latin America and South Asia, which in 1975 was 42 percentage points (see Table 2), would increase to 46 points in 1985. The ratio for Africa, which in 1975 was equal to that of South Asia, would in 1985 exceed that of the latter region by 7 percentage points. The 29 LDC would in 1985 have a primary-school capacity corresponding to 52 per cent of their population aged 6–11 years, while that of the Sahel countries would be only 36 per cent.

If we now, instead of the unadjusted ratios shown in Figure 3, calculate enrolment ratios adjusted to the duration of primary education in each region, we obtain 86 per cent for the LDR, 79 for Africa, 107 for Latin America and 83 per cent for South Asia. As was the case for 1975, when the regional differences in duration of primary education are accounted for, South Asia would have a higher primary-school capacity than what is suggested by the unadjusted ratio (83 per cent compared with 75 per cent) while the capacity for Latin America would be considerably lower (107 per cent compared with 121). The reasons are the same as explained in the second section of this article.

Turning now to the development of individual countries, Figure 4 gives information for 1985 similar to that given in Figure 1 for 1975.⁵ The figure shows that if past enrolment trends were to continue, 55 developing countries (i.e. about half of the countries covered here), accounting for some 29 per cent of the LDR's population of primary-school age, would in 1985 have sufficient capacity to enrol all children in this age-group. Seven more countries, accounting for some 9 per cent of the population, would have enrolment ratios between 90 per cent and 100 per cent. Thus, we may say that 62 developing countries, accounting for some 38 per cent of the LDR's primary-school-age population, would by 1985 have reached, or be approaching, universal primary education. Further, as many as 72 countries, accounting for some 74 per cent of the LDR's school-age population, would in 1985 have enrolment ratios exceeding 80 per cent. On the other hand, there would still be 12 countries (5 per cent of the population) where the capacity of primary schools would not be sufficient to enrol half of the population of primary-school age. Four countries, accounting for 2 per cent of the LDR's school-age population, would even have enrolment ratios below 30 per cent. Finally, it is interesting to note that the 19 countries which would have

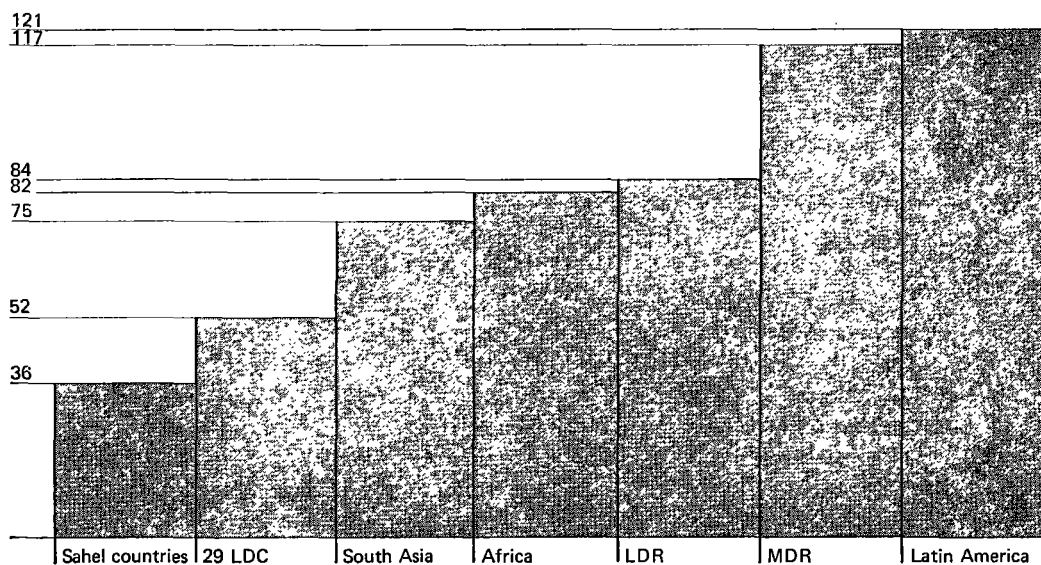


FIG. 3. Projected unadjusted enrolment ratios for primary education by region (1985).

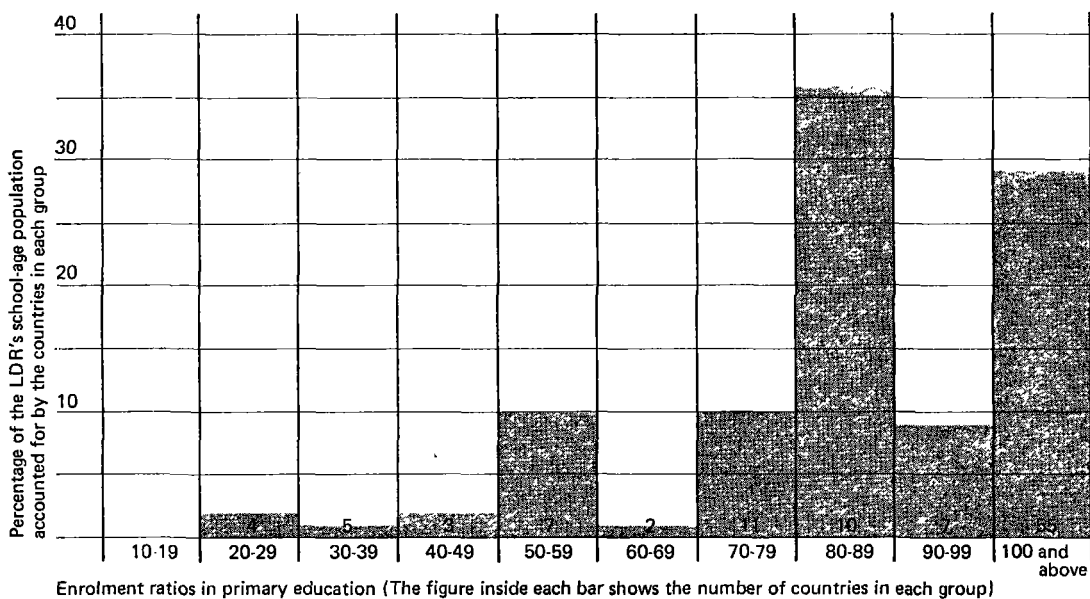


FIG. 4. Classification of countries according to projected enrolment ratio and percentage of LDR's population of school age (1985).

enrolment ratios below 60 per cent in 1985 include 14 of the 29 LDC and all the 7 Sahel countries. This may give an indication as regards priority countries for international assistance in the field of education during the 1980s.

Population pressure on education

The relatively modest increase in enrolment ratios projected for 1985 does not imply a corresponding modest increase in enrolment. For example, to attain the enrolment ratio projected for the LDR would mean an increase in the number of primary school pupils of some 104 million or 43 per cent between 1975 and 1985 as compared to an increase of some 79 million or 49 per cent between 1965 and 1975. The corresponding increase for the MDR would be 0.5 million or 0.4 per cent during the period 1975–85. The reason for this difference is, once more, the high rate of population growth in the LDR. About three-quarters of the enrolment increase projected for these regions between 1975 and 1985 would be needed just to keep pace with the growth projected in their population of primary-school age.

To illustrate further the importance of the population factor in the LDR, we shall examine the effect of different rates of population growth on the demand for education. For this we shall use the 'Low', 'Medium' and 'High' variants of the United Nations Population Projections. To give sufficient perspective, our analysis will this time cover the period 1975–2000. Columns 1–3 of Table 5 show the percentage increase in the population aged 6–11 years projected between 1975 and year 2000 for each of these three variants. According to the 'Medium' variant, the LDR would have to increase their enrolment in primary education by some 73 per cent just to keep pace with population growth. This compares with about 9 per cent for the MDR. We note that the required increase

for the 'High' variant is about the double of that of the 'Low' variant. We note further the large difference between developing regions and particularly the relatively high increase required for Africa which, according to the 'Medium' variant, would have to more than double its primary-school enrolment during this 25-year period to keep pace with the growth of the continent's population of primary-school age.

The next aspect illustrated by Table 5 is the required increase in the number of primary-school pupils between 1975 and 2000 to achieve universal enrolment at this level by the end of the period. For the purpose of this example, 'universal primary education' is defined as the enrolment of all children aged 6–11 years plus 10 per cent to allow for repetition. Our calculations show that the LDR according to the 'Medium' variant would have to increase their enrolment by some 152 per cent to attain this target, while the MDR could reach it just by maintaining their 1975 enrolment capacity. We note again large differences between the three variants as well as between the different regions. The increase required to attain this goal in Africa is particularly striking. Finally, we note that the figures given for Latin America in columns 1–3 are equal to those given in columns 4–6. The reason is that this region in 1975 already had an enrolment ratio of 111 per cent and thus had sufficient capacity to reach the target specified here. The required increase in capacity for Latin America between 1975 and 2000 would therefore be a pure function of population growth.

Another consequence of the rapid population growth in the LDR is the 'young' age-structure of their populations. This implies that to enrol all children of primary-school age implies a considerably higher 'burden' on the labour force in the LDR than in the MDR (expressed as the number of pupils per 1,000 persons of the labour force). Already in 1975 the LDR had 338 primary-school pupils per 1,000 persons in the labour force as

TABLE 5. Population pressure on education 1975-2000 according to 'Low', 'Medium' and 'High' variants of the United Nations population projections

Region	% increase in the population aged 6-11 years between 1975 and 2000			% increase in enrolment required between 1975 and 2000 to attain universal primary education by 2000		
	Low variant	Medium variant	High variant	Low variant	Medium variant	High variant
MDR	-3	9	26	-11	0	16
LDR	50	73	95	118	152	183
Africa	80	107	123	190	232	259
Latin America	47	75	103	47	75	103
South Asia	42	63	85	124	158	193

compared to 258 in the MDR. The enrolment projections presented in Figure 3 would imply that the primary school 'burden' of the LDR would increase to 382 pupils per 1,000 persons in the labour force in 1985 while the 'burden' of the MDR would decrease to 234 pupils.

In conclusion, demographic factors will to a large extent continue to condition the ability of developing countries to provide universal primary education. However urgent are the solutions to the world's problems of future population growth, world education will force the consequences of that growth even sooner, since most of the future enrolments projected for 1985 are already born. A combination of even greater efforts and more imaginative interventions in the conservative practices of educational systems would appear to be required.

Concluding remarks

As a consequence of a vigorous policy in favour of education, most developing countries could by 1975 look back on a fifteen-year period characterized by a growth in student numbers never paralleled in human history. Although the rather ambitious regional enrolment targets established in the early 1960s were not attained, the progress towards them was considerable,

and developing countries could rightly take pride in the results attained.

There were, however, at least two flies in the ointment. First, in spite of rising enrolment ratios, the number of children not enrolled at school increased. Among the reasons for this were that the population of primary-school age also grew at a rate never equalled earlier and that the problem of high drop-out rates persisted. Second, an increasing number of developing countries were facing rising unemployment among their school-leavers and graduates. Although this latter aspect has not been dealt with in this article, there can be little doubt about the need for increased attention as regards the imbalance experienced in many countries between the skills required and the education provided, and as regards the gap between the job expectations of school-leavers and graduates and the employment opportunities the economy can provide. We may hence with some justification say that in less than two decades the central problem of manpower planning has in many developing countries changed from one mainly characterized by shortages to one mainly characterized by surpluses. It is important that this change in the conditions on the labour market not discourage developing countries in their struggle to provide primary education for all.

To continue the enrolment trends observed between 1960 and 1975 would imply that the LDR in 1985 would have sufficient school capacity to enrol some 86 per cent of their population of primary-school age. However, even the large efforts required to attain this result may not give sufficient headway against population growth to reduce the number of illiterates in the Third World. To mention but one possible implication: if the present trends in new intake and internal efficiency were to continue, it is doubtful that as many as half of the LDR's women of childbearing age would be literate at the beginning of the twenty-first century.

It goes without saying that national and international policies towards education will, together with the amount of international aid available in this field, heavily condition the way in which the challenge represented by the issues raised in this article will be met in the future. Increasingly, the formulation of educational policy will have to be seen as an integrated part of a nation's total development effort.

Notes

1. For discussion of this aspect of recent educational development, see: J. Thomas, *World Problems in Education: A Brief Analytical Survey*, IBE, Studies and Surveys in Comparative Education, Paris, Unesco, 1975.
2. See: 'The Needs of Asia in Primary Education: A Plan for the Provision of Compulsory Education in the Region', Educational Studies and Documents No. 4, Paris, Unesco, 1961.
3. Some studies suggest that repetition is considerably under-reported in many Latin American countries and consequently that the proportion of first-grade enrolment, that is new entrants, is smaller than generally reported. See, for example: E. Schiefelbein, 'Repeating: An Overlooked Problem of Latin American Education', *Comparative Education Review*, Vol. 19, No. 3, October 1975; and 'Conclusion about Repetition, Drop-out and National Achievement Examination Results in Basic Education', Analytical Working Document No. 2, AID, March 1977.
4. The model used as well as the complete set of projections are published in *Trends and Projections of Enrolment by Level of Education and by Age*, CSR-E-21, Paris, Unesco Office of Statistics, 1977. This document includes country-by-country trends and projections for developing countries as well as a detailed analysis of the regional trends and projections.
5. We remind the readers that the chart covers the 104 developing countries which in 1975 had more than 250,000 inhabitants, excluding the People's Republic of China, the Democratic People's Republic of Korea and the Socialist Republic of Viet Nam.

Development of the theory and practice of aesthetic education in the schools of the U.S.S.R.

B. T. Likhatchev

Article 27 of the new Constitution of the U.S.S.R. speaks of protecting and augmenting society's cultural wealth and using it for raising the cultural level of the Soviet people. An important means of raising the people's cultural standard is to give children a broad general education and teach them to live a deep spiritual life enriched by human spiritual contact. Protecting and augmenting cultural wealth means loving literature and art, gaining an understanding of works of art, deriving enjoyment from artistic creation and being able to discern what is false in art and alien to Soviet ideology and morality. For this, it is important to form in children that artistic taste which is peculiar to man in a socialist society and is based on the aesthetics of socialist realism.

In the same Article 27, it is stated that development of professional, amateur and folk arts is encouraged in the U.S.S.R. in every way. This touches on the organization of leisure time. Professional art acquaints people with the vitally problems of social and private life. Amateur and folk arts, on the other hand, apart from the fact that they make leisure time pleasant, bring out the artist and the creator in a person. Hence at the present stage of socialism, aesthetic education as an important means of acquainting children and adults with cultural wealth is becoming a fully-fledged part of State policy.

Soviet schools are making every possible contribution to the achievement of the balanced

development of the human personality. For the first time in the history of national education, schools have the capacity to achieve the full intellectual and physical development of young people while training them for participation in social life and production.

From the very start of the Soviet education system, aesthetic education was proclaimed to be one of the fundamental means of awakening a creative attitude to life. In 'Basic Principles of a Unified Labour Education System', prepared in 1918 by the State Commission for Education and signed by A. V. Lunacharsky, it was emphasized that 'aesthetic education must be taken to cover systematic development of the organs of sense and of creative abilities, which enables people more readily to enjoy beauty and create it. Labour and scientific education devoid of this element would be lacking in soul . . .'¹

The outstanding Soviet public figures and educationalists N. K. Krupskaya, A. V. Lunacharsky, A. S. Makarenko and S. T. Shatsky regarded aesthetic education not as an isolated aspect of work among children but as a process inseparably linked to the ideological, political, labour, moral and physical education of the young.

In the Soviet education system, aesthetic education is nowadays understood as a many-faceted process. It includes not only the influences exercised by art but also education by means of the ambient reality—the beauty of labour, nature, intra-group relationships, and the beauty of occupational and artistic creation. It is also part of its job to develop in each child intellectual demands, a creative foundation and the ambition to be active in establishing a life based on fine

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communist ideals. In this connection, at least three basic features of aesthetic education should be noted.

The first is that in the Soviet education system aesthetic education is playing an increasing role in shaping the general outlook of children and young people and fostering their ideological stability. This role is primarily connected with the educational influence of art. Socialist realist art is directed towards forming communist ideals in young people and mobilizes all workers in the struggle to promote the interests of the working class against bourgeois ideology and morality. When it is reflected in art, a reality that is artistically interpreted and evaluated in accordance with the general outlook of an artist, forms in a person—be he reader, spectator or listener—an ideological, moral and aesthetic attitude to life consistent with that general outlook. When it comes to the aims and assignments of artistic and aesthetic education, it is not enough to define them merely in terms of developing in children the ability to feel, understand and create beauty. The very concept of beauty must always be brought out, since beauty, being bound up with people's social and class positions and carrying within it elements of non-transient aesthetic values, is a phenomenon that is by no means the same for everyone in a society. According to the aesthetics of socialist realism, the prerequisite for the emergence of genuine beauty lies in an indissoluble link between the artist and the life of the people, in a true communist approach to evaluating reality, and in a highly artistic depiction of life and its revolutionary development. 'The chief criterion of the significance of any work', said L. I. Brezhnev at the twenty-fifth congress of the Communist Party of the Soviet Union, 'was, of course, and remains its ideological direction'.³

Soviet writers and artists maintain a demanding attitude towards their work for children and

young people. Shortly after the twenty-fifth CPSU Congress, the unions of creative artists held a number of congresses and gatherings attended by those active in Soviet art. At these crucial gatherings, writers and artists, composers and musicians, film producers and performers carefully analysed their achievements and, in the light of the targets set by the Party, charted the course for the future development of Soviet art. One of the main topics of discussion was works of art for the young.

Soviet artists and teachers are united in their educational efforts. 'Literature and teaching', said M. I. Kondakov, the vice-president of the Academy of Pedagogical Science, at the Sixth Congress of Writers, 'are at present bound by one challenging and very important task—an in-depth exploration of the education of our contemporaries. The effectiveness of our efforts thus depends to a considerable extent on how the educational system echoes the processes being followed by literature and how literature echoes the processes of personality formation in education'.³

A scientific approach to the moulding of a view of the world in children through aesthetic education consists in selecting high-principled artistic works for activities among children, making them a central concern of the child, and doing the utmost to ensure that they are perceived and their ideological and artistic essence grasped. It is important that each child should learn to enter the world of the images produced by art, that he should inwardly see what the artist was seeking to convey, and that he should feel he is participating in the events depicted. The primary perception of a work of art is only the first step towards contact with its images, its heroes and its ideas. Contact with art is an ever-developing process. And the better, more profoundly and more artistically reality is depicted in art and the more resolutely support is given to what is new and forward-looking in life, the stronger the hold the artist has over our thoughts and feelings, the fuller

and longer is contact with a work of art. Finally, the greater the creative activity of the children themselves, the more effective will be the process of forming their view of the world.

The second feature of aesthetic education in the Soviet education system is that socialist society demands greater participation by it in raising the general culture of the people and in achieving the balanced development of every individual. The whole process is interlocking.

The scientific and technical revolution has made it necessary to review education in school. Changes have been made in school structure, in the correlation of individual subjects in the curriculum, and in the content of the subjects themselves. The standard curriculum shows how Soviet educationalists have tried to strike a harmonious balance between arts and science subjects. In the arts group, three subjects can be singled out as being relevant to aesthetic education: literature, visual art and music. These subjects educate, in the words of V. G. Belinsky, 'man in man', the worthy, active member of Soviet society and builder of communism. Systematic familiarization of pupils with art encourages the formation of artistic tastes and aesthetic ideas as well as a system of views on life as a whole.

Arts subjects have the following inherent, basic characteristics. In literature and art lessons, pupils learn about outstanding works which are imbued with the spirit of great progressive ideas and humanism. The selection of works of art for study in school is based on the principle of consistency with communist ideals, high ideological and artistic worth, and relevance to contemporary Soviet culture and to the intellectual education of the pupils. In dealing with the content of such works, the teacher helps the pupils to widen their horizons, gives them the opportunity of coming into contact with the world of elevated feelings, of taking pleasure in

the masterpieces created by mankind and deriving enjoyment from what is beautiful.

In lessons relating to aesthetics, pupils engage in independent creative activity. The teacher helps the children to develop habits and skills by means of which they can express their ideas in pictures. He also teaches pupils how to see life, gives them a wealth of vital impressions and helps them to crystallize observations in picture form, to convey an idea and to state personal attitudes. Such attention from the teacher is needed not only when he is dealing with immediate creative pictorial expression by children, as is the case in visual-art lessons, but also when it comes to performing art, which predominates in music and literature lessons. This, too, requires great efforts from the children's intellect, imagination and feelings.

The principal arts subject is literature, and the literature course in Russian schools naturally covers mainly Russian and Soviet literature. All the same, to promote the pupils' general development and to make education more international, the course also includes the most important works of the peoples of the U.S.S.R. and of world literature. In the Union and Autonomous Republics and the National Regions and Districts, a national literature course is also taught. Independent pupil activity in literature lessons takes the form of poetry and prose declamation, together with oral and written descriptions of the books read and compositions about their authors.

The general purpose of music as an academic subject is to foster the aesthetic and moral sensibility of the pupils and their musical taste, and to encourage a love for music and an active and creative attitude to it. The Soviet education system tries to give children the bases of a general musical education by teaching them to sing in time, with expression, by developing musical abilities, providing elementary musical knowledge and acquainting children as far as possible with the works of major Soviet and foreign composers. The music to which children

are introduced at school is selected for its ideological and artistic value, for its clarity of image and for its emotional appeal to children. It gives an idea of music as a means of getting to know reality and shows how it reflects human life and feelings. The singing and musical appreciation syllabus includes the creative works of Russian pre-revolutionary, Soviet and foreign composers. The children listen to gramophone records and so get to know the principal musicians and performers and learn to appreciate their consummate skill.

Much emphasis in school music lessons is placed on choral singing as the most accessible form of group music activity. Pupils are taught to convey in their singing the feelings and thoughts contained in the composition. This is important both to prompt aesthetic experience in children and to develop the voice since in an emotional rendering, the entire vocal apparatus is brought into play. In singing and musical appreciation, children gradually become musically 'literate', learn about the content and character of compositions, about the means of musical expression, about the genre and structure of a composition and about the different orchestras, instruments, choirs and singing voices. The knowledge and skills acquired exclusively by audition are bound up with the selection of compositions.

The basis of all musical study is a musical ear. In music lessons, the teacher comprehensively develops the musical ear of the pupils with regard to pitch, harmony, rhythm and timbre. Development of the ear and proficiency in reading music are built on the scale principle. Consistency in independent music reading depends on a greater feeling for scale and a surer grasp of the tonal link between sounds.

Visual art as an academic subject is intended to promote the pupils' balanced development. It leads to the development of the pupils' artistic and creative abilities, the fostering of aesthetic feeling and artistic taste, an interest in visual art, and mastery of the fundamentals of

visual art, which enable people to express their aesthetic attitude to reality in images and pictures.

The syllabus provides for four types of visual-art lessons, viz.: drawing from nature, subject drawing, decorative drawing, and discussions of works of visual art.

Drawing from nature is important in developing in pupils the ability and skills needed for realistic representation. The skills acquired in drawing from nature are used by pupils in subject drawing and decorative design, where the object is to draw from memory or the imagination. These kinds of work are important for the creative development of pupils and for teaching them to think visually.

Pupils become acquainted with outstanding works of visual art in two ways. As part of practical lessons, works of this kind are used for explaining to pupils the expressive resources of a drawing, painting or decorative design item. In special discussions on particular subjects or on the work of an outstanding artist, pupils learn about the masterpieces of Russian pre-revolutionary, Soviet and foreign art. Here they learn to make a full interpretation of works of visual art, to compare and draw conclusions from their impressions, and to express opinions on the basis of their preferences.

In addition to the three special subjects referred to, art is studied in the course on general history and the history of the peoples of the U.S.S.R. The place occupied by art in these courses can be judged from the amount of space devoted to art in history textbooks, which is as follows: 5th class, ancient history, 29 per cent; 6th class, history of the Middle Ages, 18.5 per cent; 7th class, history of the peoples of the U.S.S.R., 22 per cent. In the senior classes the proportion is slightly lower.

History is an academic subject concerned with art as a whole and with all its basic aspects. Pupils learn about the basic phenomena of art from its beginnings up to the most striking manifestations of our times. In history lessons,

pupils get to know about the most outstanding creations of each historical period. They become familiar not only with the great works of their native peoples and of the peoples of their country, but also with the great masterpieces of mankind as a whole. Pupils systematically learn about the culture and art of ancient Egypt, Greece and Rome, India and China, the original inhabitants of America and Arabia, and Europe in the Middle Ages, and about the new art of the European, Eastern and American peoples and the developing countries of Africa. The total proportion of textbook material on culture and art in history courses in all classes, starting with the fourth, amounts to 11.4 per cent.

Visual art accounts for a considerable proportion of the material on art in history courses. This is, first, because works of visual art and architecture are the best preserved. In ancient history they are the focus of attention. Secondly, many such works of art serve as the sole source on which to base historical truth, and they are used as historical documents. In terms of visual-art content, history ranks foremost.

Pupils have the opportunity to try their creative skills in each of the basic forms of art. For those with ability or interest in any particular art form, various kinds of education and training are provided. Some of these exist in the school itself and take such forms of out-of-class work as visits to concerts and exhibitions, hobby groups including groups for ballroom dancing, art societies and clubs, international clubs, lectures and so on. They differ in nature according to the age of the pupils but cover all age-groups from the junior to the terminal classes.

Optional studies are an important activity. They are for pupils who show keen interest and are provided for the senior classes, from the seventh class onwards. There are at present two types of optional course, and these have a direct influence on the art education and aesthetic perception of pupils. The first consists of courses amplifying and extending the knowledge and skills of pupils in a given subject.

They are devoted to one form of art, such as literature, visual art or music. They may also include optional courses on film and dramatic art. The second type are comprehensive courses embracing all the main forms of art and providing material for investigation of either the nature or the history of art. An example of a course combining the various aspects of art in order to examine its aesthetic essence is the course on the fundamentals of aesthetics and art study. An instance of the other type is the course on the history of world artistic culture.

The educational influence of art is not confined to arts subjects and to optional art studies. Class and out-of-class forms of aesthetic education are supplemented by out-of-school activities. The harmonious and balanced personal development of every young citizen is ensured by all that the Soviet State does to educate and bring up the young from pre-school age onwards, and this includes a full measure of attention to aesthetic education. Out-of-school aesthetic education activities are part of a complex system that includes children's special art schools, Young Pioneer Palaces and Centres, special radio and television broadcasts for children and young people, newspapers and periodicals for young readers, specialized publishing houses for children, children's theatres and cinemas, and the activities of the unions of creative workers.

Let us take a few examples. A course on music as an art form is taught in general schools and is compulsory for all pupils. Suitably gifted children attending ordinary schools for their general education can also receive a special musical education and learn to play instruments at the country's music schools and training centres. In Moscow, for instance, for 1,200 general schools there are 69 music schools attended by 22,152 pupils. The R.S.F.S.R. has 635 music schools attended by a total of 504,094 pupils. The picture is roughly the same throughout the country. For gifted children, there are ten-year

schools providing special musical or artistic education (visual art, choreography) combined with general education.

As a further example, in each town or district centre there are Young Pioneer Palaces and Centres with music, choreography and theatrical studios and, in most cases, graphic-art and film studios. An idea of the activities of children's independent societies in Young Pioneer Palaces can be provided by the V. S. Loktev Song and Dance Company of the Moscow Municipal Young Pioneer Palace. This comprises a choir, an orchestra and a ballet group. It has a membership of 1,500 children of various ages from all the districts of Moscow. It is one of the largest music societies for children in the Soviet Union.

To take yet another example, all the unions of creative workers—writers, artists, composers and film and theatre workers—have special committees on aesthetic education for children and young people. The Union of Composers organizes concerts for children and young people by the best music societies, leading performers and highly qualified musicians. The Union of Artists organizes mobile exhibitions on particular subjects, including special displays for children such as 'Children's Artists', 'Native Landscapes', 'The Earth and People', 'The Theme of Labour in Visual Art', and so forth.

There are out-of-school events which are organized jointly by national education bodies, the Komsomol and the unions of creative workers. To name just a few, there is the All-Union Children's Book Week; song festivals which originated in the Baltic Republics and have become a nation-wide form of music education; and exhibitions of children's drawing. Material from such exhibitions was used in Armenia to establish the country's first museum of children's drawing. A second museum of this kind was recently opened in Georgia. Then there are children's amateur art displays and festivals covering the entire country. In the Russian Federation, an all-republic literacy fes-

tival was recently instituted. It was first held in 1973 and was devoted to Pushkin's work. The festival has become an annual event, and in 1975 it was devoted to the poet Lermontov. In 1976 the festival was devoted to the theme 'Let Us Follow the Communists' Example'. There is also the entirely new Children's Theatre Week, which has only just come into being as a special form of aesthetic education, but has already gained recognition and popularity.

A third characteristic of aesthetic education in Soviet schools is its increasing role in the creative development of the personality. This has been brought about by the scientific and technical revolution with its greatly increased demands on human creative potential. Modern production and social life require man to be always ready to solve problems creatively and effectively, and steadily to improve labour and technological processes. To meet the requirements of scientific and technical progress, educational science is conducting intensive research into how a person's intellectual attributes can be developed more rapidly in the acquisition of knowledge, know-how and skills. Much attention is being given to practical laboratory work and to the establishment of basic research and problem situations in the teaching process. It should be borne in mind that such mental processes as imagination, attention, memory and thought develop most intensively in the course of creative art activities.

Study of literature as the art of the word and inculcation of the reading habit develops the ability to grasp, emotionally and aesthetically, the ideological and artistic content of works on the basis of a knowledge of the fundamental postulates of literary science. The best Soviet literature teachers awaken the thinker, the poet or the artist in pupils capable of understanding the writer's philosophy and feelings and of seeing colours and hearing sounds inaccessible to the unprepared mind, heart, eye and ear.

At the same time, they learn to see phenomena, facts and life in their right proportions. This is possible in the study of literature, all of whose stages add to knowledge and develop observation, attention to poetical content and to imagination, and thereby arouse feelings of identification and empathy.

The systematic study of music and dancing leads to the intensive development not only of ear and voice and the ability to control one's movements (or carriage) but also to the development of concentration, memory, thought, imagination and intuition. All this is of immense importance for the development of general and particular creative abilities. The volitional qualities of the personality are greatly strengthened, such as discipline and a sense of responsibility, as are universal properties like a sense of rhythm, measure, form, time and harmony.

Visual art is equally conducive to personal development. Its specific characteristic is that it is not only an area for the cognition of reality or a means of reflecting it, but is also a means of becoming aware of it. It plays a very direct part in forming man's actual environment, e.g. the landscape, architecture, the internal arrangement and appearance of buildings, machines, clothing and indeed everything with which man's work and day-to-day life are associated. In the aesthetic education of children by means of visual art, the way the child's environment is fashioned, the exterior and interior decoration of the school, and its rational planning play an important part, as do the colour schemes and the equipment and design of the place where the child studies and spends his leisure time. The qualities developed by visual-art activities include the ability to approach any matter from the angle of creative art and to make a correct assessment of what has been done by oneself and by others from the standpoint of social ideals and the harmonious interrelation of content and form. Visual-art studies develop the ability to see, observe, differentiate, analyse and classify actual phenomena and to establish

order in the flow of visual information. They teach one to express in visually defined forms the conditions of creative work. They develop an aesthetic sense and the ability to perceive beauty in our actual reality and art.

Apart from its importance for general development, art has a specifically developmental function which belongs to it alone. This is its power to develop artistic thinking, or thinking in art images which emerges only through artistic creation and constant association with art. This creation and association produce a talented practitioner of art who can penetrate deep into the artistic peculiarities of each work, and artistic thinking then develops which becomes an important condition of further scientific and technological progress. It is of direct assistance in the design of new machines, aircraft and technical equipment. It becomes an intrinsic part of scientific and technological thinking.

The science of education gives great help with the problems of aesthetic education in Soviet schools.

The development of the science of education as applied to aesthetic education was determined in the U.S.S.R. after the October Revolution by the new, wide-ranging educational tasks which were the basis for the reorganization of the country's entire education system. The speeches made by A. V. Lunacharsky and N. K. Krupskaya emphasized the role of art in forming a complete personality and in organizing school life, and pointed to the link between art and labour processes.

Around Krupskaya and Lunacharsky a group of teaching artists formed, noteworthy among whom was A. V. Bakushinsky. Under his leadership a systematic study was made of children's drawing, and experimental research was also undertaken. While children's painting and drawing had been previously regarded as a special artistic phenomenon and had therefore been

chiefly studied without any reference to educational factors as such, the valuable observations made concerning the artistic development of children led to an important theory, which still holds good, regarding the need to take account of the age-group characteristics of children's visual-art activity. The accumulation of facts also belied the unsound premise of the spontaneous development of creativity in children. Research is centred around a study of the development of children's creativity in a context of purposeful educational guidance.

The notions of complexity and interdisciplinarity in art teaching have been developed and amplified in educational science right from the earliest days of the Soviet educational system. They were originally formulated by Lunacharsky as the harmonious combination, in education, of the fundamentals of science and the fundamentals of art: 'Nobody should be an ignoramus. Everyone should know the fundamentals of all sciences and of all arts.'⁴

In the 1920s and 1930s, practical sociology occupied a considerable place in research plans. The artistic interests of pupils were often looked on as something separate from their other interests and from the general pattern of their personalities. An approach of this kind naturally precluded any understanding of the part played by art in forming the pupil's personality. The basic object of study—the artistic interests of the pupil—was nevertheless defined as a result of research carried out in that very period.

The emergence in the post-war period of a large research centre like the Academy of Pedagogical Science of the R.S.F.S.R. (1946) and, under its authority, an art education research institute, heralded a new stage in the organization of theoretical research vital for the development of the science of the aesthetic education of schoolchildren.

This stage was originally associated with analysis of the experience amassed by Soviet educational science and teaching in the 1920s

and 1930s, something which was reflected in practically every research project. In the 1950s and 1960s, conditions were ripe for the establishment of an independent scientific discipline known as the theory of aesthetic education.

In the 1960s and 1970s, hand in hand with the development and promotion of art, intensive research has been conducted and a number of books have been published on the fundamental aspects of the theory and practice of aesthetic education (A. Burov, V. Vanslov, V. Razumny, V. Skatershchikov, etc.). Theoretical approaches to the problem are similarly being arrived at by analysing our current national system of aesthetic education (N. Kiyashchenko). Much more attention is being devoted to the question of 'man and art' by psychologists and psychophysicists (N. Volkov, V. Zinchenko, E. Nazaikinsky, O. Nikoforov, P. Simonov, P. Yakobson, etc.). Socio-psychological research is also being actively pursued.

Experimental research in school is becoming more extensive and is being put on a sounder scientific basis. It is particularly intensive in the Baltic and Transcaucasian Republics, in the Ukraine, in Byelorussia and, for the R.S.F.S.R., in Moscow, Leningrad, Kazan and Novosibirsk. An experiment involving a new music syllabus is being carried out by the composer D. B. Kabalevsky. A number of other art programmes have been prepared and are being tried out in schools, including a visual-art programme, an optional course programme on 'World Artistic Culture', drawn up by L. Predtecheskaya under the guidance of Kabalevsky, and so forth.

The decision of the College of the U.S.S.R. Ministry of Education of December 1970 regarding the radical improvement of aesthetic education in schools has greatly influenced the elaboration and application of the theory and methods of aesthetic education in the U.S.S.R. It provides for the establishment of a unified system of aesthetic education intimately combining class, out-of-class and out-of-school work, and

for the preparation of new art syllabuses designed to cover the ten-year period of schooling.

The principal centre for research on aesthetic education problems is now the Art Education Research Institute of the Academy of Pedagogical Science, which has concentrated on establishing a system of aesthetic education in schools. On the basis of previous research, developments in the science of aesthetic education, and the practice of the best schools and teachers, a number of fundamental works have been published (*The Aesthetic Education of Pupils, Art and the Military-Patriotic Education of Pupils, Drama and the Adolescent*, etc.).

For the first time in educational science, a system of optional courses and art clubs is being introduced for out-of-school institutions and general schools ('Fundamentals of Theatrical Art' and 'Fundamentals of Cinematographic Art' for pupils in the seventh to tenth classes, art-club programmes covering all branches of art) together with a number of textbooks on methods.

The main research trends at present concern the topical problems of how to decide on the new content of literature, visual art and music teaching. The year 1970 saw the start of a nationwide experiment involving the preparation of visual-art and music syllabuses, with the participation of some fifty schools in seven Union Republics.

On the basis of experimental work and analysis of the experience of progressive educationists in the country, alternative syllabuses were

prepared giving two hours a week for classes one to ten or one hour a week for classes one to six, together with standard syllabuses for schools in the Union Republics.

'Research on the Artistic Interests of Pupils' was the first such large-scale research in the particular sociology of art education. It examined the specific age characteristics of the attitudes of pupils in all ten classes to the most popular forms of art (literature, film, music, drama, visual art), taking account of the influence on a pupil's artistic interests of the basic factors in the social environment (family, school, cultural and educational establishments, mass media) and covering schools in various parts of the country (Moscow, *Pedagogika*, 1974).

Educational science has thus played an enormous part in the development of aesthetic education in Soviet schools. The investigations of educationalists are not only directed towards bringing children to understand genuine art and developing elevated artistic tastes in them; they also aim, by means of realistic, authentically revolutionary art, to foster in pupils a Marxist-Leninist view of the world and a communist attitude to life.

Notes

1. *Revoljucija, Iskusstvo, Deti* [Revolution, Art, Children], p. 102, Moscow, Prosvesoenie, 1966.
2. *Proceedings of the XXVth CPSU Congress*, p. 80, Moscow, Politizdat, 1976.
3. *Ucitel'skaja Gazeta* [The Teacher's Journal], 24 June 1976.
4. *Revoljucija, Iskusstvo, Deti*, op. cit., p. 85.

Notes and reviews

Book reviews

Development of the education system of the German Democratic Republic as illustrated by documentary material

Documents Concerning the History of the Educational System of the German Democratic Republic.

Part I: 1945-1955, documents selected by Gottfried Uhlig, Berlin, Volk und Wissen Volkseigener Verlag, 1970, 557 p. (Corresponds to Vol. VI of the series *Monumenta Paedagogica*.)

Part II: 1956-1967/1968, in two half-volumes, documents selected by Karl-Heinz Guenther in collaboration with Christine Lost, Berlin, Volk und Wissen Volkseigener Verlag, 1969, 857 p. (Corresponds to Vols. VII/1 and VII/2 of *Monumenta Paedagogica*.)

Part III: 1968-1972/1973, in two half-volumes, documents selected by Guenther and Lost, Berlin, Volk und Wissen Volkseigener, 1974, 855 p. (Corresponds to Vols. XVI/1 and XVI/2 of *Monumenta Paedagogica*.)

The five volumes of the series 'Monumenta Paedagogica' on the history of the education system in the German Democratic Republic which have been edited up to the present time are of great value, for they reflect the development of the education system of a socialist country from its origin until the present time. The five volumes bring together all the basic texts adopted in this respect between 1945 and 1973. They take the reader back to the complexity of the situation at the outset of the creation of the education system in the territory of the present German Democratic Republic after the crushing of Nazism in 1945, and describe how the country has succeeded, on the basis of fundamental transformations in power and property relationships, and by systematic elimination of all educational privilege, in progressively ensuring that everyone enjoys continually improved conditions for universal fulfilment of his personality. Study of the documents presented will enable the reader to understand how the education system of the German Democratic Republic has been able to make such amazing strides and, within a short space of years, despite all sorts of difficulties, achieve successes which have won it international esteem. The documents show the close correlation and interaction between education and society: education is not an abstract and timeless phenomenon but is linked, in the most varied forms, with the existing social situation, in particular with property, power

and class relationships in the society in question. They also prove that education is always called upon to fulfil a social function, i.e. to contribute to the protection and consolidation of the existing social order. Its aims, content, methods and forms of organization are determined by social intentions. The emergence of new social problems has always prompted the authorities to reappraise conceptions of education and instruction and to adapt them, when necessary to the evolving demands of social life.

However, social developments do not automatically bring about changes in education and training. Teaching and education are, so to speak, the reflection of these social developments. They always fulfil an active function in the process of social development, play a stimulating role in the training of the individual as a decisive productive force, and prepare the younger generation to face and meet the needs of future society. The 400-odd documents in these five volumes reflect these dialectical interactions between education and society. This is particularly evident in such major texts as the 'Act for the Democratization of German Education' of 1946 (see Part I, pages 207 et seq.), the 'Act for the Socialist Development of the Educational System in the German Democratic Republic' of 1959 (see Part II, pages 315 et seq.) and the 'Act for the Unified System of Socialist Teaching' of 1965 (see Part II, pages 569 et seq.).

The numerous texts concerning the changes in

regard to goals, content, methods and forms of organization in education and teaching show that the preparation, formulation, enactment (in very diverse forms) and implementation of such changes have always been based on new social demands. The continually evolving aims and content of education reflect the multiple interactions between education and society (see for example Part I, pages 216 et seq. and 398 et seq.; Part II, pages 260 et seq.; Part III, pages 53 et seq., 358 et seq., 366 et seq., 518 et seq. and 543). The evolving aims and content are also expressed in the way in which timetables for the different stages of education have been modified, the amount of time devoted to the exact and natural sciences and to the social sciences (native language, history and civic education), aesthetic, cultural and physical education, reflecting current social necessities (see for example Part I, pages 397, 517 and 520; Part II, pages 31, 62, 113 et seq., 240 et seq., 260 et seq. and 781 et seq.; Part III, pages 267 et seq.).

These necessities also appear in documents whose sole purpose is to bring about changes in one single teaching discipline. This is most clearly reflected in disciplines whose objectives, content, methods and forms of organization are determined by new social transformations—that is to say, in the teaching of history and civic education (see for example Part I, pages 398 et seq.; Part III, pages 577 et seq.) or which must keep pace with scientific and technical progress (for example the introduction of polytechnical teaching (in this connection see Part II, pages 32 et seq., 175 et seq., 204 et seq., 240 et seq. and 260 et seq.; Part III, pages 53 et seq.).

The interpenetration of education and society is also reflected in those documents which aim at the encouragement of optional instruction or the satisfaction of particular interests and talents (see for example Part III, pages 124 et seq., 241 et seq., 524 et seq. and 530 et seq.) or which deal with changes in the basic and in-service training of teachers (see for example Part I, pages 214 and 375 et seq.; Part II, pages 334 et seq., 456 et seq., 559 et seq. and 630 et seq.; Part III, pages 117 et seq., 158 et seq., 206 and 618 et seq.).

A large number of educational policy measures and decisions whose purpose is to associate youth and children's organizations more intimately with the educational and training process (see for example Part I, pages 241 et seq.; Part II, pages 277 et seq., 307, 356 et seq., 403 and 414 et seq.; Part III, pages 405 et seq. and 466 et seq.) are evidence of a stronger trend toward making the education and training of the younger generation the concern of all citizens. These documents reveal that an ever-growing number of workers who have been system-

atically mobilized for educational work are today giving teachers and educators active and increasing assistance in their work (see for example Part I, pages 192 et seq., 393 et seq. and 525 et seq.; Part II, pages 323 et seq.; Part III, pages 293 et seq.).

These five volumes of texts on the educational system constitute a clear demonstration of the close correlation between society and education. They prove, on the one hand, that any change in aims, content, methods and forms of organization in education and training is determined by social needs and, on the other hand, that education and training exert an active function in stabilizing the system.

The compilers went to great lengths to obtain above all a relatively complete collection of laws, decisions, orders, regulations, etc., relating to the genesis of the 'ten-year schools for general and polytechnical education'. A great many documents reflect the progressive development of these schools from the former eight-year primary schools—most rural primary schools in fact had only a single class. Since the beginning of the 1970s attendance at a school for general and polytechnical education has been obligatory for all children. However, the documents reflect not only a quantitative extension of obligatory schooling from 8 to 10 years, but also the multiple qualitative changes in subject-matter and in the level of instruction. They show that all the efforts put forth towards the goal of giving children a ten-year general and polytechnical education have aimed, and continue to aim, at providing a very high-level general education to all—a broad basic education to secondary level such as draws on the latest advances in the natural and exact sciences as well as the social sciences and equips the pupils to go on to higher educational establishments. Although the documents comprising this collection deal primarily with the ten-year schools for general and polytechnical education, they also include the basic texts relating to the various other subsystems of the unified system of socialist teaching: pre-school education, vocational training schools, colleges for higher technical training, universities and other higher educational establishments. Although the unified system of socialist teaching was actually planned and perfected only in 1963 and 1964 and given legal status in the beginning of 1965, the documents in this collection clearly show that, even before the introduction of the new system, all the individual components of the educational system had been continually developed in such a way that, once finalized, they could be systematically coordinated and integrated within a unified education system.

Thus the collection includes the most important documents in the area of pre-school education. These

documents (see Part I, pages 220, 271 et seq., 375 et seq., 409 et seq. and 430 et seq.; Part II, pages 576 et seq. and 785 et seq.; Part III, pages 624 et seq.) show that the German Democratic Republic has done the optimum to ensure its youngest citizens a universal education as well as the best medical and general protection. The increase in the number of pre-school establishments and the modernization of already existing establishments contribute very substantially to promoting the emancipation of women, their development and equality of rights. At present, all children between the ages of 3 and 6 can attend a pre-school establishment provided their parents so desire.

In addition, the collection includes a great number of documents on vocational training (see Part I, pages 207 et seq., and 234 et seq.; Part II, pages 42 et seq., 543 et seq., 588 et seq. and 841 et seq.; Part III, pages 40 et seq., 183 et seq. and 597 et seq.). The prime aim of all steps taken in this regard has always been to enable young people—with the exception of those attending establishments giving access to universities or other higher educational establishments—to learn a trade after completing the eight-year primary school or the ten-year school for general and polytechnical education. At the present time, this aim is achieved in 100 per cent of cases.

The collection also includes the most important documents concerning colleges for higher technical training, universities and other establishments for higher education (see Part I, pages 209 and 474 et seq.; Part II, pages 456 et seq., 544 et seq. and 592 et seq.; Part III, pages 117 et seq. and 131 et seq.). These documents show how the authorities have succeeded in effacing all privileges in respect of education and giving each and everyone a legal right to education.

The documents in this collection which deal with the different subsystems of the German Democratic Republic's education system reveal that the pre-school establishments, the ten-year schools for general and polytechnical education, the vocational training schools, the colleges for higher technical training, the universities and other establishments for higher education are all integral parts of a unified teaching system. The main lines of this system were adumbrated in the 'Act for the Democratization of German Education' (1946) (see Part I, pages 207 et seq.), although it only found explicit expression in the 'Act for the Unified System of Socialist Education' of 1965. This text represents the cornerstone of the country's long-term educational strategy.

The structure of the collection is chronological, documents being classified according to their date of publication, approval or promulgation. The respective

indexes refer back to the source from which the document in question has been reproduced in the collection. Part III (the second half-volume) gives a general synopsis of all the documents (see Part III, pages 791 et seq.). In addition, it contains a detailed key to all the documents included in the collection (see Part III, pages 818 et seq.). This key facilitates the consultation of the various volumes and allows one to find rapidly all sources relative to a particular problem (for example, the content of education, teacher training, teaching of foreign languages). The fifth volume of the collection also includes a considerable number of statistics concerning the development of the education system (see Part II, pages 724 et seq.) that Roland Schmidt has prepared on the basis of data that were often not readily accessible.

The first three volumes are introduced by a very detailed presentation of 'The History of Education in the German Democratic Republic between 1945 and 1968' (see Part I, pages 25–152). Its authors are Karl-Heinz Guenther and Gottfried Uhlig.

One disadvantage, however, is that the documents are presented with relatively little reference to the process of social development in which they originated and in which they were to fulfil a definite role. Anyone using these volumes should therefore refer to the fundamental studies now available concerning the history of the national educational system in the German Democratic Republic. These studies will further his insight into the scope, significance and limitations of the various documents.¹

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Note

1. The reader should refer to the following works: G. Uhlig, *Der Beginn der Anti-faschistisch-demokratischen Schulreform 1945–1946* [The Beginning of the Antifascist-democratic Education Reform 1945–1946]. Berlin, Akademie-Verlag, 1965; *Zur Entwicklung des Volksbildungswesens auf dem Gebiet der Deutschen Demokratischen Republik 1946–1949* [The Development of the National Education System on the Territory of the German Democratic Republic 1946–1949], edited by a group of authors under the direction of K. H. Guenther and G. Uhlig, Berlin, Volk und Wissen Volkseigener Verlag, 1968; *Zur Entwicklung des Volksbildungswesens in der Deutschen Demokratischen Republik in den Jahren 1946–1956* [The Development of the National Education System in the German Democratic Republic between 1949 and 1956], edited by a group of authors under the direction of G. Uhlig, Berlin, Volk und Wissen Volkseigener Verlag, 1974.

**Paradoxes in oil and education
as certain Venezuelan educators see them**

- J. F. Reyes Baena, *Dependencia, Desarrollo y Educación*, Caracas, UCV, 1972, 260 p.
- L. A. Bigott, *El Educador Neocolonizado*, Caracas, Editorial La Enseñanza Viva, 1975, 80 p.
- R. G. Castro, *Educación y Recursos Humanos en Venezuela: un Aporte al Estudio de los Recursos Humanos de Nivel Superior*, Caracas, UCV, 1976, 241 p.
- F. Chacon, *Liderazgo Docente en Acción*, Caracas [1977], 211 p.
- Laboratorio Educativo, *Segunda Hipótesis para un Estudio del Sistema Escolar en Venezuela*, Caracas, Cuadernos de Educación, 1977, 177 p.
- Laboratorio Educativo, *Vº. Plan de la Nación: Análisis Crítico del Sector Educativo*, Caracas, Cuadernos de Educación, 1977, 97 p.
- L. B. Prieto Figueroa, *El Estado y la Educación en América Latina*, Caracas, Monte Avila, 1977, 303 p.
- A. Rosenblat, *La Educación: la Grande Urgencia*, Caracas, Monte Avila, 1975, 200 p. (New expanded edition.)
- N. de Velasquez, *et al.*, *Orientaciones Valorativas en el Contenido de los Libros de Texto Escolares* (quantitative results), Caracas, CENDES/UCV, 1975, 295 p. (Working paper No. 20.)

To understand and do justice to the recent efforts by Venezuelan research specialists and other responsible authorities to make a critical assessment of the state of education in their country, we feel that it is essential to take into account the very special development of Venezuela over the past two generations. To begin with, although the country has undoubtedly a number of cultural characteristics in common with its neighbours, it would seem advisable to discard that convenient label 'a Latin American country', which, rather than making for any worthwhile comparisons, is a valid reference for only the most superficial analogies. If we are to compare the present position of Venezuela with that of other countries at the present time, instead of comparing it with some other 'Latin American country', we would do better to take the highly original example of the oil-producing countries, not only because Venezuela is one of the most important oil producers in the world, or, again, because it was Venezuela that took the initiative to set up the Organization of Petroleum Exporting Countries (OPEC), but because the exploiting and exporting of this exceptional product have considerably affected the structures of the entire country and have had a direct influence on the whole question of educational development.

**DEVELOPING AN EDUCATIONAL
SYSTEM—FOR WHAT?**

The basic characteristic of the 'oil model' is to be found in the paradoxical nature of the demand for education and training. Within a single generation, from 1930 to 1960 roughly speaking, quite exceptional financial resources enabled Venezuela to emerge from its traditional position of a marginal country on the fringes of the Third World and achieve integration into world markets, while opening up more and more to international exchange. During the following generation, from 1960 to the present time, it has been able to break away from the somewhat sluggish pace of economic growth and the slow rate of educational expansion by means of a steady increase in State funding and investment. This quite exceptional growth has been reflected in an increase—unique in the world today—in the provision of educational facilities, both in and out of school. But this has led to a somewhat disturbing situation today characterized by general inflation; although oil revenues have furthered the setting up of a vast national infrastructure, their main effect has been to create an unmanageable demand for consumer goods. For example, it is a striking fact that the oil industry, the financial driving-power and technological model of this fabulous growth, is the industry that has contributed least to the expansion of the labour market. And

in spite of the constant desire of successive governments to 'make oil increase and multiply', that is to say, to use the oil industry as a basis for promoting diversified industrial development, the trend in employment openings remains the authorities' main preoccupation as well as continuing to be a day-to-day problem for each new generation when the time comes to go out and look for a job.

It is this initial paradox that R. G. Castro deals with in the study that bears the highly significant title: *Educación y Recursos Humanos*. Castro, a professor at the Central University of Venezuela (UCV) who took an active part in planning this higher-education establishment, seeks to improve the relationship between the initial and further training of higher-echelon staff, mostly graduate in fact, and their subsequent placing in employment. For what is to be done with the thousands of graduates, retrained staff and scholars whose level of aspirations and salary expectations have risen as a result of the expansion of higher education, higher education whose rate of growth is catching up with that of the United States when measured by the number of students per inhabitant? This question is all the more crucial since the labour market in Venezuela has neither the elasticity nor, still more important, the present possibilities of expansion that its northern neighbour enjoys, apart from the fact of unemployment among youth and underemployment that is hidden by a labour policy that uses the growth of services, and the inflationary tendency of a grossly overstuffed Civil Service, to create jobs at the expense of productivity.

Castro shows quite clearly both the desire of researchers to break this deadlock and also a marked trend among young Venezuelan investigators to regard the education system as subsystem. To illustrate this the author first analyses the whole range of available courses and training schemes, particularly at the higher-education level. He notes that whereas the absolute number of university graduates is increasing steadily, their distribution by discipline follows an obsolete model as regards the development of employment openings for higher-echelon staff. Thus, between now and 1980, fewer than 2 per cent will have obtained qualifications in science. To take another striking example, in the engineering branch, mining and petroleum engineers are still few and far between. This is astonishing, to say the least, at a time when the nationalization of the oil industry has become one of the government's top priorities. Another characteristic of present courses that worries the author is the excessive attention devoted to the transmission of knowledge at the expense of initiating students into practical research right from the start

of a course of university studies. This trend gives all the more cause for concern since post-graduate studies, at master's and doctoral degree levels, have not yet been systematically developed. Not only does quality seem to vary from one faculty to the next, but there is concentration of studies in two ways, geographically, first of all, in the capital, and secondly, by discipline, since medicine accounts for almost half the post-graduate and specialist courses. The author, while recognizing the possibilities offered by the new law on higher education as far as the co-ordination and the planning of the whole higher-education system are concerned, expresses his concern about 'the splitting up of the university' into a collection of more than forty institutions scattered between the provinces and the capital, between the public and private sectors and including establishments that vary considerably both in levels and requirements.

His scepticism is increased by the general lack of knowledge concerning the factors governing the constant and steadily accelerating increase in the demand for education. After pointing to the difficulties in applying the Tinbergen-Correa-Bos econometric model, Castro shows that, up to now, surveys on human resources in Venezuela have been far too general in scope for practical use. This is why his conclusion is that there is an urgent need for a human-resources policy which would develop not only the instruments for measuring stocks but would also make it possible to forecast the evolution of supply and demand by bringing influence to bear on income policy. He therefore calls for vigorous State planning action.

THE PARADOXES INHERENT IN DEPENDENT MODERNIZATION

Are Castro's conclusions realistic when, with the team of research specialists working together in the Laboratorio Educativo, we see that 'the methodology used in the Fifth Plan of the Nation (1976-1980) in its education sector is not based on any critical analysis of real conditions today' and that the aims of autonomous and self-sustained development will never be achieved 'as long as there is persistent underestimating of this capacity of Venezuelan research teams, as shown by systematic recourse to the services of foreign groups and universities for study of our basic problems with a view to working out policies and making decisions vital to the country' (*Vº. Plan de la Nación: Análisis Crítico del Sector Educativo*, p. 93 and 91). 'To find a proper solution to this basic problem which that "national enterprise", education, so greatly needs, have we no

national project?' this same group asks in its study of the characteristics and functioning of the educational system in Venezuela (*Segunda Hipótesis para un Estudio del Sistema Escolar en Venezuela*, p. 162 et seq.).

As can be seen from the findings of a survey carried out by L. A. Bigott concerning the image and awareness of national reality among 627 primary-school teachers, this lack of a national project concerns not only the decision-makers but also the teaching body as a whole. The neo-colonized educator is not only poorly informed; his whole training encourages a certain academicism that 'forgets all about the history of his neo-colonized country' and reduces the whole issue of training human resources to questions of a technical, technological and didactic character.

This criticism in fact reveals a second characteristic of the 'oil model', that is, its unhesitating willingness to import the most up-to-date solutions devised abroad. Following the example of the oil industry, whose technology and work organization are kept constantly in the lead, there are no techniques, methods, solutions or experts so costly that they cannot be had. As J. F. Reyes Baena stresses in a series of articles under the title *Dependencia, Desarrollo y Educación*, not only does this invasion give rise to reactions of rejection, but such external assistance benefits only those privileged classes in urban centres which are ready and willing to assimilate it. This modernization creates regional underdevelopment and aggravates social tensions generated by the breakneck pace of urbanization. It concentrates the privileged population in a few large centres to the detriment of the southern part of the country, which has yet to be developed, or of the peripheral regions which are being drained of their human resources.

THE LIMITS OF AN ALL-POWERFUL STATE

A third characteristic of the 'oil model' is the weight and pressure of the State apparatus, which, through its gradual control over the use of oil revenue, has succeeded in becoming the country's main employer and entrepreneur. This is reflected on the one hand in its capacity to carry out such gigantic projects as building the new industrial city of Ciudad Guyana, a veritable laboratory for education, in developing the semi-official INCE (Institute of Educational Cooperation) vocational-training system, the programme of the Gran Mariscal de Ayacucho Plan whereby tens of thousands of grants are awarded for study abroad, and the mushrooming of institutions of higher education. It is also reflected in the inflating of the administrative services of the Ministry of Education and the considerable strengthening of bureaucratic controls. This paradox of the omni-

present State, constantly intervening with the powerful material resources at its disposal but whose innovatory, modernizing action is continually curbed, is clearly reflected at a number of levels.

Thus, in spite of a remarkable development in the coverage of the education services, with establishments set up throughout the whole territory, this deconcentration of facilities has made only a slight contribution to reducing differences between the various regions and has not succeeded in remedying inequalities except in the major urban centres where vertical mobility is still possible. This paradoxical result is probably due to the persistent inflexibility of a centralized administration which applies in identical fashion the same directives, the same norms and the same rules throughout a territory that, because of internal migration, high population density and different rates of economic growth, is becoming more heterogeneous every day.

On this whole question of regionalization it is therefore all the more interesting to have the opinion of a director-general of the ministry, F. Chacon, who, in *Liderazgo Docente en Acción*, does indeed try to draw lessons as regards the development of the regionalization policy advocated between 1971 and 1976 and the highly topical question of education in rural areas.

Chacon shows that the Regional Education Boards (ORE), subsequently becoming Zone Education Boards (OZE), were indeed the most significant innovations introduced by the ministry during this period. But on the basis of his own experience, he rapidly pinpoints problems that have neither been solved nor yet clearly stated. Thus, there is an obvious contradiction between the overall regional scope of these boards and the fact that they have never had any jurisdiction in matters of higher education or that their influence on other semi-official institutions, INCE for example, has been reduced to one of co-ordination, thanks to good public relations. Moreover, these boards were created and partly set up before the staff needed to make them work properly were trained or retained. This so-called regionalization policy seems in fact to have been primarily one of deconcentration which has spread out over the territory an overstuffed administration without really revising the rules of the game. It expresses rather the desire of an administration that is far too highly concentrated in Caracas to exercise direct influence over the most distant and peripheral regions, instead of looking to the possibility of determining the characteristics of the system by discussion and agreement, and considering innovations in the form of another model with the collaboration of the other regions.

If genuine regionalization is not possible it is not only because, thanks to oil, the Venezuelan State has important financial resources at its disposal, but also because the most important political party, the Democratic Action Party, has always held to the principle of the State-Educator ('Estado Docente') as the cornerstone of its education policy. This policy came into force in 1948; it was reaffirmed after the military dictatorship in 1958 and has never been called into question, whatever, in other respects, the political balance of power may have been. This is shown by L. B. Prieto Figueroa in *El Estado y la Educación en América Latina*, a collection of his statements on the subject in his capacity as teacher, minister and politician over a forty-year period of struggle. For Prieto, democratization necessarily implies moving from 'an education for castes to education for the mass of the people', and this is why 'it would be unthinkable for the State to abandon to the whims of privately organized activities the orientation and development of the self-awareness of citizens' (p. 31). This implies, on the one hand, the furthering of non-denominational education instead of private, denominational schools and, on the other, it affirms the primary function of the State in guaranteeing equal access to education and ensuring that the same educational opportunities are available to the whole population. Although this principle has enabled the State to convert non-denominational education into a public education system available to all, there is no certainty that it has succeeded in democratizing possibilities of success nor even in encouraging a type of education which promotes national development. It is therefore disturbing, to say the least, that pending the entry into force of the new Education Law (it has been under discussion for five years), the legal framework that defines the aims of education is still that formulated twenty years ago. In the light of the upheavals within Venezuelan society and the emergence of new values and new behaviour patterns, particularly among the rising generation, the fact that the main response of the education system has been quantitative growth and a marked strengthening of its unwieldy bureaucratic system can only be a cause for concern.

A CREATIVE APPROACH IN EDUCATION AND CRITICAL ANALYSIS

The difficulty the State is experiencing in promoting a new educational order, not to mention a viable national project, has not brought things to a standstill, however; on the contrary, one need only look at the titles of reports made by Ministers of Education to see that since 1971, and this whatever their

political leanings, they have all been aware of the same malaise and have been calling for change.

Whether it is the 'educational development' project advocated by H. H. Carabano in *Nuevos Aportes a la Reforma Educativa* (Caracas, 1971), or the same theme taken up again later by his successor E. Pérez Olivares in *Mas Aportes a la Reforma Educativa* (Caracas, 1971) and by L. M. Penalver in the revolutionary plan put forward in *La Revolución Educativa* (Caracas, 1976), each has tried to go one step further in the introduction of certain innovations, either by bringing textbooks and teaching aids up to date, by establishing regionalization and administrative reforms, diversifying secondary-school education and giving a work-oriented slant to terminal classes, or again, by founding a national open university, in addition to all the measures already referred to here. However, a show of energy in formulating theories, in drawing up a mass of partial schemes and in making more and more teaching 'gadgets' available are not enough to hide the inability, at the policy-making level, to work out a comprehensive, coherent reform project, whence a certain irritation on the part of the public which is reflected in increasingly harsh commentaries in the press and on radio and television and the increasingly radical criticism voiced by intellectuals, as we see in the new edition of *La Educación: la Grande Urgencia*, by A. Rosenblat, an educational expert who up to now has been held to be a moderate.

But these attacks against the State, the different parties and the ministry authorities may also make us overlook the fact that specialists, research workers and educational experts generally have been very passive during this period of development. In a situation as complex and novel as that of Venezuela today, accurate assessments, reliable information and statistical data, and critical, objective appraisal of experiences are *sine qua non* conditions if a full picture of the situation is to be obtained. Surely it is rather disturbing that an institution such as INCE has never attracted the attention of any research scholar and that no Venezuelan has ever written a thesis on it? That the education laboratory of the pilot-region of Guyana has up to now been used only by American research scholars from Harvard? Might one not think that lack of objective knowledge also comes from lack of interest on the part of researchers who have never regarded this field as an 'interesting' one, or else have confined their analysis to certain facets of the system, with insignificant results? This can be demonstrated by the research programme at the institution with the highest reputation in Venezuela, the Centre for Development Studies (CENDES) at the Central University of

Venezuela (UCV). Set up in 1961 by J. Ahumada, reorganized in 1973 and at present headed by Professor Travieso, the Centre has carried out countless studies, either on its own initiative or at the request of the authorities, on various aspects of the national situation. But if we consider the period 1972 to 1976, only seven of the fifty projects in course of implementation were of direct concern to the education system, and of these, four were only begun in 1976.

Among them is a project financed by the National Council for Scientific and Technological Research (CONICIT). Its aim is to compare the objectives of educational development as defined by the authorities, political parties, etc., with the values that govern day-to-day practice and experience at primary-school level. This project is divided into subprojects one of which, under N. de Velazquez, is concerned with the question of *the right values to be stressed in the content of textbooks*. In actual fact, the textbooks dealt with concern only Venezuelan history and geography, ethics and civics. This choice eliminates all textbooks used in teaching the mother tongue, roughly one third. On the basis of publication of the unprocessed results we can only admire the method and care taken by these research workers, the thoroughness and precision of their taxonomic analyses as well as the wealth of results obtained. This confirms our opinion that the preparation and training of research specialists in Venezuela is extremely satisfactory; we cannot but wonder, however, to what use these researchers will subsequently put their results. To begin with they state that they wish to update the content of primary education curricula but give no hint as to how their research projects can be integrated into the practical administrative process of such modernization. How will they influence the authors of such textbooks and convince them of the relevance of their analyses,

initiating them into a jargon that is all the more esoteric since the scientific frame of reference is exclusively North American, as we can see from the bibliography they have used? Surely there is a striking contradiction between the scientific model interiorized by these researchers and the ideological approach of CENDES, which for years has been denouncing scientific dependence and the alienation of research workers?

To obtain a comprehensive, critical appraisal of the present situation and forecast future developments, while taking into account trends deriving from the past, are requirements that the new generation of researchers in Venezuela are trying to fulfil in their contributions to the planned reform of the education 'system'. Nevertheless, we wonder whether this methodological effort to achieve critical lucidity should not be matched by another equally important effort to create the setting for a constructive give-and-take relationship between administrators and the education authorities, as well as teachers and research workers, who all too often remain confined to their university 'ghettos'. Surely the future of an effective contribution by those engaged in research will depend on their capacity to come together and organize teams made up of researchers and users along the lines of the Laboratorio Educativo? This brings us back once again to the need for genuine regionalization, which would include the decentralizing of decision-making and participation by those responsible for projects and by the users and so, in this way, achieve a redistribution of power.

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