DOCUMENT RESUME

ED 068 415 SO 004 808

TITLE	International Education Year 1970. Reflections on Democratization of Secondary and Higher Education.
INSTITUTION	United Nations Educational, Scientific, and Cultural Organization, Paris (France).
PUB DATE	70
NOTE	24p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Comparative Education; Developed Nations; *Developing Nations; Economic Factors; Educational Accountability; Educational Change; *Educational Development; *Educational Objectives; Educational Opportunities; Educational Responsibility; Enrollment Trends; *Equal Education; Higher Education; School Community Relationship; Secondary Grades; Student Centered Curriculum
IDENTIFIERS	*Educational Systems

ABSTRACT

The International Education Year objective to promote a period of reflection, experimentation and reform in the thought and practice of education is met in this commentary on democratization of secondary and higher education. An analysis of the myths and realities of equal educational opportunity precedes discussion of the kinds of redirection necessary for educational systems today. (Author/SHM)

international education year 1970

Reflections on Democratization of Secondary and Higher Education

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This document forms part of a series of twelve devoted to the priority themes of International Education Year.

It provides basic information and suggests directions for study, discussion and action; no attempt is made to analyse the subject exhaustively or to express the official views of Unesco.

In the course of IEY, the Secretariat would welcome reports and comments on the use of the document.

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"A youngster of 17 has as much right to work as to study; oldsters have as much right to study as to work"

Margaret Mead

REFLECTIONS ON DEMOCRATIZATION OF SECONDARY AND HIGHER EDUCATION

by

Michael Huberman(1)

1. As the objective of the International Education Year is to promote and further a long overdue period of reflection, experimentation and reform in the thought and practice of education, the theme of democratization is well chosen. Education is a topic in which ministry officials and specialists have at best only a marginal claim to "expertise". After all, as parents, students, teachers and workers we have all had it done to us, and some of us have gone on to do it to others as well. In fact, professional educators or layman, a good deal of man's educational philosophy is autobiographical.

2. The objective of this paper is twofold, corresponding to its two parts: (1) to rotate the "crystal" education to various contemporary lights in the hope that reflections from the several facets will increase our understanding of the potential for democratization, and (2) to make such suggestions for the restructuring of education as would seem to derive from these reflections. This restructuring, it turns out, may be as simple in concept as a modern equivalent of an educational reform that took place from the later sixteenth to the eighteenth century. At that time new academies outside the mediaeval universities came into being to respond to the interests of individuals and of societies in extending and applying the discoveries in the natural sciences. So too today, new educational alternatives outside traditional scholasticism are evolving, but this time the

(1) Mr. Huberman, a graduate of Harvard University (Ph.D), has served in the Unesco Secretariat since 1967, in the Department of School and Higher Education.

new institutions are being fashioned from lessons learned in providing education for the "disadvantaged" and the handicapped, for the newcomers to higher education, and for adults. Democratization seems to be associated with ending the divorce of the school from its environment and with fostering in every student an ability for continuing self-instruction.

PART I - THE MYTHS AND REALITIES OF EQUAL OPPORTUNITY

The universal declaration of human rights and democratization in education

3. When we talk of democratization in secondary and higher education, we are caught between a political slogan, an educational policy and, according to the Universal Charter, a human right. In all these cases, however, a common aim is set forward. Two examples are (a) the changing of education from an élite privilege to a popular expectation and right and (b) a policy of equal opportunity for a diversity of talents. In educational terms, this has come to mean the provision of universal primary education, equal educational opportunities regardless of race, social and economic origin and sex, increased participation in secondary and higher education, broader facilities for adult education, and the like. Put simply, it involves providing a higher proportion of each age group with schooling for more years.

4. There are few key problems here, which we will take up later in more detail. First, should democratization in education mean that everyone should have the right to attend all levels of education: primary, secondary and higher education? Are we ready to claim that a university should offer a public service accessible to all who wish to be admitted? When the Universal Declaration of Human Rights distinguishes between secondary education ("available to all") and higher education ("accessible to all on the basis of merit"), is the notion of "merit" simply a device to prolong the traditional practices of access and elimination? If so, must not the Declaration be rewritten in light of contemporary demands of social equality? If not, how do we come to terms with such a traditionally élite and detached institution as the university in an active, democratic society?

5. Or, to look at another meaning of the term, is it "democratic" to apply the principle, as is also done in the Universal Declaration, that primary schooling must be compulsory? In practical if not pedagogical terms, how well do pupils learn when they are compelled to pass through a programme - when education is not only available but required of everyone? More seriously, in order to enforce a compulsory system, each country has had to resort to massive standardization. Equally important - and we shall return to this point - is compulsory or universal primary and secondary schooling the most effective way of educating children in all countries, particularly developing countries? Finally, how can the social goal of mass educatior be conciliated with a "participatory democracy", that is, a system of decentralization that increases the number who are responsible, who initiate and decide?

The proportions of the enrolment explosion

6. The rising demand for more educational privileges as living standards and the national level of general schooling improve, the belief that more formal education ensures occupational and financial success, the increasing democratization of all human institutions - all these factors have encouraged the educational aspirations of each succeeding generation. Enrolments have risen dramatically.

7. The demand for open access to education is politically strong, although it can often be educationally unsound. The majority of educational ministries in the European continent are anticipating and deliberately preparing for an increase in the percentage of 19 to 24 year olds in the population enrolled in a university on the order of 10 to 20 per cent during the coming five-year period. Given the present conditions of overcrowding, understaffing, heavy drop-out rates, lack of specialized administration, discontent with teaching methods and curriculum, and the limited resources in many of these countries, the move to greater democratization is likely to substitute new and more complicated problems for older and simpler ones. The same situation is likely to occur in countries where democratization in education has pushed up enrolments enormously, while the actual percentage of government expenditures remains practically the same. On the other hand, to limit enrolments on economic grounds, when this is educationally practicable, usually amounts to political suicide.

8. These questions or priorities in educational policy come out into public view during meetings between Ministers of Education, as in the Conference of Ministers of Education of European Member States on "Access to Higher Education", held by Unesco in 1967. More recently, the Sixth Conference of European Ministers of Education of OECD Member States, held in May 1969, and devoted to the theme of "Educational Opportunity for All", reported that Ministers, while they agree that it is easy to advocate expansion of numbers and qualitative improvement in all types and levels of education, cannot find common agreement on which reforms should come first. Given a scarcity of resources and demands from other sectors of the public economy, should reform of secondary education take precedence over higher education? Can a higher rate of return be gained by improving primary rather than pre-school programmes? Is the disadvantaged child's claim on scarce educational resources more pressing than that of the privileged?

9. To some degree, the massive influx of pupils was anticipated by most educational ministries for the primary and secondary levels. In European and North American countries, for example, the rising birth rate was met by expanded teaching and material facilities and by wider access of the entire age cohort, although the bulge of pupils in the years 1950-1960 was 60 per cent to 80 per cent over the previous fifteen years.

10. The bottleneck came with the heavy concentration of these pupils at the threshold of higher education. Particularly in Western Europe, the expansion of higher education has been far slower and built on a narrower base than was the case for secondary education. As a result, the number of vacancies at the higher education level has actually diminished, in proportion

to the number of qualified secondary school candidates. European universities, conservative by nature in the structure of their administration and the invested powers of their senior teaching staff, seem to have stood solemnly and defensively within their traditional sizes and functions. They have expected, as was the case in the past, that a spontaneous interaction of economic, social and cultural forces (dominated for the most part by privileges of birth, social status and urban residence) would bring in a sufficient number of qualified students. In fact, as late as 1955, most university systems were able to adapt to the continuing but stable growth in enrolments, while meeting adequately the demands for highly trained manpower in an increasing variety of specialized fields.

11. The crisis has come in those university systems that did the least forecasting. The United Kingdom built and staffed 23 universities and technical institutes after World War II, and has kept its wastage rate low. Higher education in the United States of America, Sweden and USSR has grown rapidly, but student-to-teacher ratio have been kept as a reasonable 12:1. In France, Italy, Austria and the Federal Republic of Germany, however, a sum total of 8 new universities were built between 1945 and 1965, and it is in these countries that the haphazard expansion of existing universities and the increasing access of secondary-level graduates have brought on a major crisis. The student-to-teacher ratios are between 30:1 and 40:1 (in some French and Italian faculties on the order of 70:1 and 85:1) and the first-year rate of drop-out between 45% and 65%. The output of graduates in France and the United Kingdom is approximately the same, but to produce them the French system enrols twice as many.

12. These problems are compounded by the inertia of universities, their sluggishness in adapting internal affairs to new external necessities. Weighted down by traditional attitudes and rigid structures, the instructional systems seem to lag behind social growth as a whole. Students are usually taught according to a model that is geared to the previous stage of social and technological advance. Or are we asking too much of our universities? Are our aspirations too far ahead of an institution traditionally designed to train an élite for government work and the "liberal" professions? Can the same institution that grew from a devotion to detached or disinterested scholarship now produce large numbers of skilled professionals for managerial and teaching work that calls for more than a secondary-level education?

13. Perhaps we have overloaded the universities because, until recently, there was nowhere else to go. And perhaps we are expecting too much of an institution that has been the historical transmitter of the existing social order, when we demand that it be an innovative agent for radical change. Yet can we continue to accept the university's resistance to vocationalism and its loyalty to élitism? During the past 100 years the traditional separation of the university from engineering, technology, agriculture, commerce and applied research has been overcome, particularly in North America and Eastern Europe. The type of reforms underway in

Western Europe and Latin America are meant to incorporate technical institutes into the university structure (or, at least, to grant them university status) and they are clearly a reflection of the response to demands for a more efficient and centralized "output" of high-level scientific and technical training. Yet we still have the strange state affairs where the degree programmes held most in disrepute are often those at the heart of the national economy.

An inbred fear of democratization

14. The lack of a smooth articulation between the secondary school and the university is bound up with the traditional idea of a university élite, representing 5% to 20% of the yearly age group. We have here a continued European heritage, passed on to developing countries under colonialism, that dates from its patrimonial - if not feudal - past. The American and Eastern European concept of eventually providing higher education for all conjures up in the minds of most university authorities the vision of a mass education and a decline of standards. Education for all, the argument runs, is education for none. Western European universities have tried to find a middle way by accepting special qualifications for access rather broadening the main entrance.

15. This calls to mind the history and evolution of secondary schooling, when it too was in the process of becoming more widely accessible, democratized and universal. Here as well, the notion of "secondary education" was broadened beyond the traditional selective and academic type of schooling to include various "tracks" and less theoretical programmes. The lesson is clear: a small, élitist educational system that must expand and democratize cannot cling to patterns and norms of an earlier age and created for different purposes. Most developed countries will have to be prepared for 40% or more of the age group to enter full-time higher education by the year 2000. Already the difference in enrolment percentages between Europe's Eastern and Western universitities is striking.

16. While the Eastern European countries show broadening of educational opportunity in higher education greater than all regions in the world with the exception of North America, their structures and inequality of the past have not been completely overcome. More than 50 per cent of higher education students come from the white collar strata, which amount to only 20 or 25 per cent of those employed. Children of the white collar strata have a very high rate, as well, in such faculties as art and medicine; students with worker and peasant backgrounds are most numerous in the schools of practical and technical studies: education, agriculture, economics. Thus, the traditional orientations are still to be seen and the unequal extent to which the different social classes participate in higher education persists even though higher studies are free of charge. In the same connexion, the proportion of Eastern European students of working class and peasant origin is much higher in the evening courses and in correspondence courses where degree programmes are longer and drop-out rates much higher than among daytime students. There is also a tendency towards a high concentration of children of senior officials in the most prestigious urban universities, which is disproportionate to the population distribution by occupation in the country as a whole.

17. One by one, the arguments for keeping highly selective the access to higher education have been disproved. Recent research, particularly in the United Kingdom and Sweden, has put an end to the doctrine that only a small percentage of the national population is sufficiently gifted to benefit from higher studies. In fact, the growing numbers of successful candidates from those social or cultural groups which had long been arbitrarily eliminated from higher education have proved that there is no limitation on intellectual resources in any society. Rather, it would seem to be the combination of social inequalities and inadequacies within the educational system itself which has kept important "reserves of ability" from the university. At a time when the new wave of educational psychologists, inspired by Bruner and Inhelder, can show that any concept can be taught at any age, and when primary and secondary school children are working in areas which only a few years ago were confined to higher education, the argument cannot long persist - to quote Charity James - that knowledge will turn to mud if too broadly spread.

18. But dramatic increases in enrolment rates can be misleading. At the close of a detailed ten-year study of the social and economic framework of secondary education in its Member States, the OECD has found that despite high increases in enrolments the proportion of lower-class children has remained practically the same. Often, in fact, as in the Netherlands, the enrolment increase can reflect the fact that it is the middle class in particular which is increasing its participation faster than either the upper or lower classes. There is a tendency for limited participation among lower class families to continue until the upper and middle social classes have reached "saturation", that is, something approaching 100 per cent in their participation.

19. Naturally, the loss of secondary-level and university potential is highest among low-income groups and the lowest social strata, and particularly among the children of agricultural workers, shopkeepers and artisans, who tend to take up jobs immediately after primary or early secondary school. In The Inheritors, Bourdieu and Passeron, study the social and economic origins of students finishing secondary schools, estimate that the chance of access to the university are 58.5 per cent for children of professionals, as against less than 2 per cent for children of agricultural and other workers. Wastage is also heavy among women, particularly in the more traditionally bound areas of the third world. Finally, the average proportion throughout the world of urban students in higher education is between 10 to 20 times higher than rural students.

The "hidden curriculum" and the myth of equal opportunity

20. Another massive amount of research has been put into the search for the factor which plays the greatest rôle in aiding or hindering access to secondary and higher education. The Robbins Report in the United Kingdom, the 26 year-long study of Husen, Talent, Opportunity and Career, and the writings of Halsey and Janne under OECD and Unesco auspices all concluded that the father's occupation together with the level of his education is the key to access. The Swedish data are convincing:

Sweden: Parental background of newly registered university students:

Father's occupation or education	1947	1953	1960
	per cent	per cent	per cent
Teachers, university graduates, military officers, managers(1)	38	35	35
Workers(2)	8	11	14
Others	54	54	51

Source: OECD, Educational Policy and Planning, Sweden, op. 1967, p.213

21. When the Belgian educator, Henri Janne, reports that students from working-class families average 10 per cent of the university enrolment while their parents make up 40 per cent of the active population, we can only conclude that the educational curriculum - the cherished process of intellectual development and acquired knowledge - is to a great degree the reflection of class prejudice. The social and cultural environment of the middle class has imposed its orientation and heritage on national systems of education, to the exclusion of other criteria. Children of these backgrounds will consistently out perform working-class pupils on most types of selective intelligence tests; for their schooling is an extension of their family and social environments. In fact, if examinations were changed to test manual abilities, middle-class parents would very likely hire tutors to drill their children in these skills. Also, more for financial than social reasons, students of working-class origins are often forced to abandon the longer studies required for degrees in the prestigious professional fields: law, medicine and university teaching.

Does educational democratization lead to mass uniformity?

22. The celebrated Soviet geneticist, Dobzansky, has argued that equal opportunity in a Socialist system will increase individual variations, since the genetic differences will have a greater scope for asserting themselves. This point is particularly important in education, where the ideal of democratization is that of a greater number of opportunities for a wider variety of individual abilities. Yet, as we have seen, the secondary and higher education systems seem to discourage those who do not conform to the pace and content of the school programme. We also saw that the first victims are likely to be those from other socio-cultural backgrounds: the "deprived","disadvantaged" and "underprivileged", who need "remedial" work and "compensatory" schooling. Aside from the inbuilt prejudices in this mechanism, the young themselves are gradually realizing that they are being made to adapt to the demands and expectations of other people. This, of course, is why the roots of youth dissent are to be found in questions of authority.

(1) According to election statistics, no more than 5 per cent of the entire male population belonged to these categories.

(2) 55 per cent of the male population.

23. In sum, the uniformity of mass compulsory schooling acts both to homogenize individual differences and to segregate talents in a manner that undermines national goals of democratization and, for that matter, sound educational practices. To what extent is this necessary "adjustment" by pupils to the environment of the school simply the continuation of an outworn historical tradition? Or,to put the question more sharply, how much of it is the fabrication of artificial environments by adults for children, with a system of assessment according to how far these children meet adult requirements? Nor is emphasis on adaptation and uniformity an historical accident. If we study the Napoleonic reforms of the university in the early nineteenth century, we find a systematic policy of standardization. A uniform set of texts and authors was drawn up, to be treated at the same moment in each faculty of the country. The diplomas and licences were to be perfectly equivalent in all academies. As Napoleon described his "public instruction" (a revealing term that has remained in many French-speaking ministries throughout the world), the intention was to "throw an entire generation into an identical mould" (qu'une génération tout entière puisse être jetée dans le même moule). The objective was that of "conserving the social order through the diffusion of a common doctrine" (literal translation), in order to "mould for the state citizens who would be faithful to their religion, to their principles, to their country and to their family". (former pour l'état des citoyens attachés à leur religion, à leur principes, à leur patrie et à leur famille)(1)

24. The result has been that schools and universities are more concerned with the period of time during which a person has learned, rather than what or whether he learned and how it can be usefully interpreted. The division of pupils by grades, according to age levels and advancement once per year in all subjects, goes against what has long been common knowledge in developmental psychology(2). We must begin to look at the educational structure not as a chronological sequence, but as a sort of configuration. If we begin with the end point, what we tend to call "the educated person", we must then find out what skills, knowledge, experiences, perspectives the learner must have acquired by the time he is ready to leave formal schooling. We tend to forget that the main purpose of education is not to produce good students, but rather versatile and well-trained participants in society.

Simulating the world in the classroom

25. How much longer can countries, especially developing countries, afford to support school and university systems whose curriculum is abstracted from the activities of life and divided into texts, lessons, scheduled

(1) Quoted from Napoleon's Vues politiques. Later, his disciple Fourcroy, boasted of the reforms having created "a university which was protected by its regulations from the mania of innovations and systems". (préservée par les règlements de la manie des innovations et des systèmes).

(2) Recently, this theory has been revived by the British psychologist, Liam Hudson, in his distinction between "convergent" (or uniform) learning and "divergent" (or individual) learning.

learning periods and graded promotions? As formal schooling has taken over more of the education of the young from 7 to 21, the greater becomes the difference between scholastic life and real life.

26. Instead of generalizing on the Soviet, Cuban, Tanzanian and American practice of putting professionals and graduate schools together with working professionals and industries, we seem to be teaching a curriculum abstracted from work in the field and then giving certificates to the graduates to return to the field and relearn everything in terms of the actual work. The success of field studies, project-oriented research, curricula addressed to community problems and functions comes from the combination of and alternation between conceptual thinking and first-hand experience.

27. If we take this argument one step further, we can conclude that learning really takes place when the student is caught up in the context in which intellectual activity is going on - that the concepts in university programmes must be taught in relation to experiences that correspond to them. This means that universities must teach not only what is practical and functional (without becoming mere training academies) but must also maintain intellectual virtues as active virtues. Too often, our schools hold to a double standard: an academic truth as distinct from an empirical truth. If courses in moral philosophy, history, political science and sociology lead students to undertake social reforms outside and inside the university, the educational system would then have every reason to judge that its teaching has been successful. It should be logical that students would combine activism with study, that is, would reconcile their private lives with their academic activities in much the same way as with their careers. All too often, in fact, students absorb the "content" of degree programmes with no change in their initial ideas and attitudes.

The difference between education and educational institutions

28. The idea that the only way people get educated is by being enrolled in institutions is part of the unfortunate mythology that has complicated our educational crisis. It is essentially a vestige from primitive and static societies where, as Charity James describes it, some or all are permitted gradually to learn as they grow older and enter more deeply into the tribal mysteries. Knowledge, then, takes on a sort of sacred quality; it will be defiled if it gets into the wrong hands. It must be revered and guarded, and it is beyond criticism. In the majority of countries, the university has created and - through its control over certification for high-level jobs - has strengthened the myth that no one can learn unless he goes to school.

29. These problems are especially critical for universities in developing countries which cannot afford the luxury of scholasticism. More seriously, perhaps, it is a luxury which does not bear fruit. Given the immense possibility of resources for study and pre-vocational training that lie in urban and rural areas outside the university walls, and given the critical need on the part of developing countries for versatile people who

will function well on the job without prolonged in-service training programmes, this situation will not continue. Even in industrialized countries, the problem is becoming more acute. The American Society for Engineering Education has been forced recently to undertake a programme of internships in engineering plants for university professors, many of whom have no experience in applied engineering and thus turn out generations of graduates like themselves(1), prepared only for research and teaching.

30. We seem to be living through another cycle of history much like the period of the mediaeval university, with its over-concentration on method and its neglect of developments in the surrounding society. Here as well, from the later sixteenth to the eighteenth century, the demand for new professional training and the realization that the world's body of knowledge had already been explored and too little applied led to the creation of alternative institutions with different or no entry requirements: colleges of physicians, colleges of commerce, societies of arts and manufactures, etc. During that period, almost all applied knowledge was deinstitutionalized. From 1770 to 1830, the major discoveries and progress in natural sciences (developments in medicine, new uses of mineralogy and chemistry, advances in the study of heat and mechanics) took place outside the university, within newly formed scientific academies. There is perhaps a lesson to be drawn from this 200-year period during which non-conformist academies sprang up to meet educational needs of individuals and socio-economic demands of nations which had been unmet in the universities. After all, Cambridge began as an anti-university.....

The key to the problem: diplomas and credentials

31. The main reason schooling is confused with education is certification. Public authorities still refuse to credit activities outside the school or university as either teaching or learning. For purposes of examination and accreditation, secondary and higher education take place only according to time served in "certified" institutions. Many educators still look on talent as the ability to absorb the material communicated in school. In this way, the teaching "guild", particularly in the university, comes to control the content, the methods and the standards of education. Those who draw up most of the examinations and who make the evaluations are the ones who themselves produce the materials. In economics, this is known as a closed system, and a system that will inevitably stagnate.

32. In education, however, the stagnation can continue much longer. If a group of teachers and students come together to teach and learn, they would need a charter. Charters are either non-existent or simply very expensive (in which case, they serve to establish special schools for the privileged). Without a charter, however, this group cannot grant certified degrees. Without certified degrees, the graduates cannot get high-level work or professional licences. Hence the myth that institutional education

(1) In this connexion, Marshall MacLuhan, the advocate of education through mass media, has argued that the level of information is higher outside of the schools than within them.

is the only path to success is self-proving. Educators who proclaim that their secondary schools and universities have thrived by their excellence might stop to consider that they have survived because they are the routes of access to financial success and social status. There is a vicious syndrome in education throughout the world: those who succeed in secondary and higher education are bound to succeed. They will pass more easily through an academic curriculum and academic examinations designed for their particular abilities. They will then receive superior certificates which will entitle them to high-level posts, without having proved that they can perform in the world outside the school. Behind the principle of equality of opportunity in education is an invisible machinery of social and scholastic inequality.

Who pays for public education?

33. To look at democratization in education from another perspective: when the proportions of higher education enrolments between upper-class and lower-class children are as lopsided as we have seen, it then becomes essential to look into public expenditures. Under the existing system - at least in market economies - in both developing and developed countries, lower-income groups are paying a disproportionate share of the cost of higher education, while middle - and higher - income groups have a disproportionate share of the benefits. To put the argument bluntly: the poor man seems to be helping to subsidize the higher education of the children of the affluent. A team of economists at the London School of Economics estimates that for a given (British) pound's worth of higher education to be proportional to gross earnings, middle-class families should be paying about nine times the increment of tax paid by the average working class family. Yet middle class families in Britain are not required to support nearly that large a share of higher education costs. It is probably safe to estimate that in the majority of countries in the world, the wealthiest 10% of the population receives 10 times as much public funding for education, per capita, as the poorest 10%.

34. In fact, it is illegitimate to demand that the government also subsidize those young people who neither desire nor are eligible to take advantage of public education? Why should the State subsidize four years at the university for students, while neglecting apprenticeships, independent study programmes, small community trade schools, or even the purchase of small business by non-students? Here, in the name of equality of opportunity, is a situation where those in the age group who do not attend upper secondary school or university could justifiably lay claim to an amount of national subsidy equal to the public cost of each university student. The majority of young people between the ages of 18 and 21 are working in factories, shops and offices, and only a small number have true access to the very few part-time provisions offered locally.

PART II - REMEDIES BY RESTRUCTURING AND DESTRUCTURING

Where social equality meets educational equality

35. To review where this analysis has brought us, and what sort of redirection and restructuring it involves: all parties are agreed that social democracy in education is our main objective - more education for more people. As recent legislation in Europe has shown, countries are changing the traditional educational policy whereby 20 of 100 pupils are selected at age 11 for specialized, privileged schooling on the secondary level leading to the universities and that, by the same policy, only 8 of these 20 are admitted into heavily subsidized, higher quality higher education, while the "less gifted" are shuffled into terminal programmes.

36. We have also seen, however, that widening the access to more pupils from different backgrounds is not a sufficient remedy. In order that formal education be "democratic", it must provide facilities oriented toward producing educational successes, not failures(1). This means that teaching procedures must come to match the competencies and level of development that the child brings into the school with the requirements of the task to be learned. It involves devising various ways of educating appropriate to various talents, conditions and careers. For example, if we take the Yugoslav legislation (a model of democracy applied to education from which many countries could profit) allowing any individual access to higher education who is five years older than the average age of those entering university, the real test of democratization is whether or not he profits from the education. As with the recent measures in the United States for automatic entry into higher education of special ethnic groups ("culturally different youth"), social demand has become educational demand. If many of these students drop out, the conclusion must be that there is a teaching problem, not a learning problem. The answer, then is not special courses for the students, but rather special courses for the teachers(2).

37. A uniform curriculum and teaching pattern, therefore, is both educationally and socially undemocratic. Also, as suggested in several connexions, it is ineffective. One of the principal reasons for which thousands of pupils leave the educational system each year is lack of incentive, rather than lack of ability. For most lower-income parents and for

(1) See William J. Platt "Educating for Development", IEY Trend Paper No.5, Unesco, 1970, page 11.

(2) In Eastern European countries, similar programmes have been going on for several years at the university level. At a recent round table at Unesco on "the Rôle and Function of the University in Contemporary Society", the student participants agreed to discuss "the Access of Students to the University" providing that the next item on the agenda be "Access of Teachers to the University".

their children, formal education makes sense only if it helps a young person to prepare for and attain a good job, or, alternatively, if it can teach him how to cope with the practical aspects of his daily life. And the desirability of staying on another year will be judged almost entirely in those terms. Have we the right in this case to deplore a "lack of cultural understanding", or to pretend that the school will provide it if only these children are kept in for a longer period? We never raise questions nor make assumptions of this kind where "adult" education is concerned. Rather, we tend to believe that the child has no goals of his own. Or, to return to a point made earlier, we respond by making our uniform educational system compulsory for 6 or 8 years in the hopes of "adapting" these "disadvantaged" children to "more acceptable" values and motivations. What is worse, we judge our success by whether the pupil stays, not by whether he learns. And yet the judgement of these children is sound according to the cardinal rules of pedagogy. They have decided that they do not want to learn more in school. The instruction has not been meaningful to them.

How people must learn in the twentieth century

38. Very briefly, we know that something has been learned when a person's conduct has changed, whether he performs something differently at the end of a sequence than at the beginning. It has become painfully obvious that most scholastic examinations do not and cannot measure this change - or even the potential of change - in behaviour or action.

39. The major reforms in content structure and teaching methodology have come to the public educational system from these so-called "special schools", those of Pestalozzi, Montessori, Freinet, Lane and Neill. What the majority of teachers and administrators in primary schools throughout the world have still to learn from these educators is that children can do much more than the school assumes, even to the point of designing and carrying out their work independently. To be unrealistic but logical: a pupil or adult who considers whether or not formal education is worth while (apart from its by-products of social advancement and the assurance of economic success through its certificates) should decide according to whether he wants to learn something and whether the school is the best place to do this. We can probably say that the school has been successful if (a) it allows his leaving and re-entry according to his progress and his personal and economic responsibilities (the opposite of the practice today) and (b) if he leaves after each course programme wanting and knowing how to find knowledge independently.

40. In developing countries, in particular, this flexible approach will lead to an increase both of working productivity and potential, and as we shall see, it requires not so much an additional financial investment as a redistribution of expenditures. In highly industrialized countries, it is perhaps the only way of coping with a complicated technological environment, where people must be prepared for types of work that cannot yet be clearly defined. One half of the working population in the West hold jobs that did not exist at the start of the century - those, for example, connected with

the airplane, the automobile, the use of oil, atomic energy, plastics, refrigeration, etc. The basic skills will still be those to which the school addresses itself (the ability to listen, speak, write and count), but they can no longer be taught as packets within different course subjects or "disciplines", nor within fixed cycles. Since existing knowledge must be constantly reorganized and reconstituted by the school graduate faced with new and changing jobs, the practical test of formal education in an industrialized society becomes that of whether it prepares pupils for the demands of work 15 to 20 years later. Ashby drives the point home by predicting that the entire technological labour force in 1965 will be obsolescent by the year 2000.

The implications of de-institutionalizing education

41. In these circumstances, no university, and in particular no scientific faculty, can presume that the measure of student achievement is his assimilation of a fixed "body of knowledge". On the assumption that a student will be obliged to continue learning throughout his life, the objective must be that of finding theoretical and operational categories that enable him to process material still unknown. If there is to be an examination in a field aside from such "apprenticeship" studies as technical education of medicine or engineering, the main criterion must be how the student organized the materials to deal with new problems and situations. At the same time, no university can continue to claim that the necessary skills and knowledge reside in and can only be acquired from the institution.

42. At both the secondary and higher levels, then, we must change to a "consumer approach"; the teacher's rôle is now that of structuring the curriculum in terms of the student's skills, capacities and inclinations, rather than in terms of the materials themselves. The teaching programme is turned around and considered as a learning programme, just as the necessity of "inquiry" and "discovery methods" impose themselves over authoritarian teaching methods and the passive noting and assimilation of methodology and facts. It is as important for a teacher to concentrate on showing the primary school leaver how he can learn from resources and information outside the school as for a university graduate to have learned this by himself. It is equally as important that the school system itself look for forms of organization which absorb these resources or that it decentralize to make them available.

43. In fact, there is at present a movement of decentralization in the most industrialized countries which bears serious study by school authorities in developing countries, for it may allow them to avoid the pitfalls of the so-called "developed world" in the field of urban education, simply by halting the campaign to invest in construction and organization of centralized educational systems along the patterns traced by occidental schools over the past two hundred years. For many of the reasons outlined earlier, such countries as U.S.A., Canada, Sweden and the Netherlands have found themselves "over-developed" and are now trying to de-institutionalize their educational systems. There is less experimentation now in achieving individualization within mass education in centralized schools than in buildings unused during the evenings, in market squares, even on the streets. For large groups of

children, these are the most meaningful places to assimilate and apply immediately what they have learned, and the strategy becomes that of bringing teachers directly into those environments in which children can best function and with which they will likely cope for the rest of their lives. As many countries have discovered in wartime or in other national crises, the closing down of schools while retaining the teachers in service can result in such imaginative uses of learning resources in the community (public meetings, mass media, mathematics lessons in the markets, museums, visits to civic offices, etc.) that a return to the former more abstract system becomes unsuitable.

44. With the potential of educational technology as an additional tool for bringing instruction directly to the learner in a way allowing both for greater independence, individualization, economy and teaching supervision, we may soon have a situation whereby educational experts from highly developed countries seek out the best and most adaptable models of innovation in countries in the developing world where formal education has not yet been highly organized and centralized(1). We seem to have forgotten that, at the base, schooling is simply a set of planned experiences that have been institutionalized.

45. If we look into the consequences, the changes necessary in structures and mentalities to actualize the ideas of self-education, student-centred teaching, and the breakdown of distance between school and outside environments, a particular problem stands out. Once it is assumed that there is no longer a proper and necessary order in which things can be learned, nor that we can define an essential body of knowledge that all should share, the direction of the teaching staff must be transformed. The function of the university, for example, was formerly fixed by the subject matters. The fact that the professorial corps decided on instructional policies and programmes was due to its composition of licenced specialists who had particular branches of knowledge as their provinces. Their special insights, their control over professional licences, their mastery of a fairly stable "discipline" justified their exercising authority and setting rules. And in an educational institution, authority can seldom be legitimized on any other than educational grounds: qualifications, experience, knowledge, training, judgement, scholarship.

46. What happens, then, when this body of knowledge is no longer fixed: when good scholarship becomes less essential than good teaching, for which very few university professors have been trained; when what the student hears becomes more important than what the teacher says; when fixed cycles of attendance are replaced by intermittent leaving and re-entry; when facilities for education are available outside institutions of learning; when students are learning to teach themselves? Finally, on the social

(1) In fact, the time is ripe for an ambitious programme in reverse technical assistance, whereby specialists from developing countries in community development, second-language teaching, polyvalent out-of-school education, family education and rural "animation" can help solve the most acute over-development problems in highly industrialized countries.

front, what happens when we have a strong movement towards social and political democratization throughout the world on the grounds that all individuals should be represented on governing bodies where decisions are taken that directly concern them?

Governance and responsibility

47. The question being asked here is this: considering these new orientations, how are rules of governance and responsibility to be set in contemporary secondary schools and universities? Or, from another perspective: is there a meaningful distinction any more between democratization in an educational institution and democratization in the surrounding society?

48. Of course, the answer depends on whether we feel that universities should be managed as a civic democracy, a "community of scholars" or an administrative corporation. When students demand representation on governing boards, they often picture the university as made up of special interest groups, each having its own preserve and its claims to control in varying degrees according to a certain number of responsibilities. The academic staff tends to see claims of formal democracy or civic equality as out of place in the practice of education. They feel that preoccupation with politics will dilute educational purposes and end by bringing down a university. Some will reply outright that the university is in the first instance a place of schooling, and that students have come because they want to learn something and there are qualified people to teach them.

49. As for the administration, the typical solution is a division of functions and responsibilities that take into account each group's special skills and limitations, in the interests of efficient operation. Here the basic arguments against the "participation" of students in governance come forward: their brief connexion with the university (discontinuity), their lack of maturity and knowledge, their interest in short-range changes, rather than the long-range objectives of the university, etc.

50. When students answer to these judgements they have tended more recently to bypass the point-for-point arguments (e.g. students are more involved with and committed to the university when they are there than either teaching staff or administration; they can bring different outlooks to traditional practices and are often closer to the topic under review; they can be more detached and often more informed about the long-range changes of the university, etc.). They will raise more fundamental issues. If higher education is meant as the arbiter for judging the consequences and evaluating the goals of how knowledge is to be put to work in society, the policies and practices of education are closely tied to the exercise of social power. This makes the structure of education a very important factor: the selection and organization of content, the determination of how it is to be treated and by whom, the terms of evaluation and the requirements for accreditation, the use of the university's resources in and by social agencies.

51. On the one hand, then, we have their claim that any delegated authority is only tolerable in an academic community when all members share the responsibility of deciding on regulations and practices. Nor can "delegated" mean that ultimate sovereignty still remains beyond student representation in the hands of another agency in the university.

52. On the other hand, students are demanding the right to influence the substance and form of education available to them, to make provisions for educational programmes relevant to their interpretation of life. If education is to be conceived as a process of self-determination and self-realization, it follows that students should have greater discretion in the councils that fix institutional policy. They should be involved in directing their own instruction, since this is the objective of their work during and after university. There are also grounds for student representation in order to remedy the failure of almost all educational systems to evaluate adequately and systematically their own performance. Few universities have such mechanisms at present. Educational institutions seem to be designed to study everything but themselves. How has it happened that an institution founded to encourage a scientific or methodological aptitude resists so strongly the use of the same analyses or methods on its own functioning? Why does the university's mandate of detached and critical judgement of social and cultural life make it blind to the gap between its own objectives and its success or failure in meeting them?

53. We seem to have accepted without question the professorial notion of a university - a sort of feudal anarchy, with unwritten laws setting out boundaries and empires and an unwritten pact to counter as a group any movement toward systematic co-ordination. At the same time, the principal reason for which change and reform have always come from outside is that the university is not organized for decision and action, but rather for deliberation. The force of the student movement has had much to do with the fact that students are in the peculiar situation of being cohesive groups both inside and outside the university and therefore able to exert pressure from both points. The problem here, however, is that the student movement has been politically radical while remaining educationally conservative.

Lessons from the primary schools

54. There is something misplaced in these discussions of whether or not university students are adult enough for "participation" when six year-olds in British primary schools have devised their own curricula for several years and progressive secondary schools have used democratic councils with equal voting rights for pupil representatives as an essential part of education itself. More recently in Sweden, pupils in these schools have been made primarily responsible for deciding the use of their study time, with discussion and voting in councils (with representatives from among teachers, parents and administrators) on other issues. One of the first measures voted, in fact, was that the school charters calling for "respect and obedience for professors" be changed to "understanding and tact"...

55. The optimal solution - and one to which a great deal of organizational theory is being devoted at present - is that management be designed according to the kinds of decisions that are to be made, ranging from the "pyramidal" to the "participative". Particularly in questions of curricula, it is hard to see where the machinery of representative democracy is appropriate. If a university is willing to re-examine continually the purpose and effectiveness of its academic programme, informal mechanisms and work at the "local" level are likely to be more effective. Representation allows a narrow base for participation and very seldom engages others than the representatives themselves. When the aim is to increase student involvement in their own education, membership on an academic council must be underpinned by sub-committees or by a regular consultation in smaller units between students and staff. Clearly, the central problem is that of satisfying student desires for shared responsibility in such a way as to strengthen the practice and uses of education without making this goal a subsidiary of collective decision-making.

Dynamics in education: creating alternatives

56. Our major mistake, looking back through the history of education, may have been the decision to make public schooling the only accepted means of bringing up young people and serving the cause of democratization. The lack of alternatives almost always results in uniformity, standardization and what is called "goal displacement": the loss of concern for the original aims and a preoccupation with the functioning of the institution itself. And when an educational system forgets its original objectives and begins to turn around in its own space, it no longer responds to the situation outside of itself. It becomes self-serving, refines its methods, and grows increasingly indifferent to changes and demands from the agents that it was created to serve. As we continue putting students through static and self-confined schools in a fast-changing universe demanding versatility and adaptation, we are accepting a situation that we would never accept in any other area of our society. How many countries have become victims of their own educational systems? In how many cases where education is known to be a catalyst to social and economic development has the institutionalization of education brought on a near paralysis in growth?

57. We have seen that the remedy to a similar crisis in the fifteenth century in Europe was the difficult but spontaneous birth of non-university centres of research and training. Perhaps the growing number of "counter-universities", "free universities", or "experimental universities" in our decade is part of the same cycle. Nor is it surprising that, in this era, the young themselves have led the attempt to build new and more vital institutions among the ruins of the old. The problem here, however, is that a "counter-university" is less a viable alternative than it is an institution founded solely on reaction. It is more the expression of a revolt. If the central university disappeared, the counter-university would have to invent a new reason for existing. And in these cases, one abuse has often created another. This is perhaps a partial explanation of how the "revolting"

teachers from the orthodox University of Paris came to establish an equally orthodox University in Oxford, and Oxford's revolutionaries went to another venture in Cambridge ending in its own counter-rigidity.

58. The most successful reforms in education, as often in political life, have come from the creation of alternative systems which themselves allow for other alternatives to be created in turn. One of the best examples is the Danish Free School structure (Friskoler). Some 175 schools for pupils between 7 and 14 years of age exist apart from the State system. Publicly financed, they were created at the outset both for religious and educational reasons. This means that any dissenting minority can establish its school, be it an organization or a group of individual parents. In the United States, the Centre for Research and Experimentation in Higher Education plans and co-ordinates experimental programmes in its member colleges in such a way that if a trial programme is successful, it is put into the conventional degree course and replaced by another experimental or pilot project. That is to say, innovation is actually institutionalized within the university. Nothing, of course, could be more problem-ridden. Any number of educators have pointed out that the field of education is probably the least innovative sector in our modern society, a field where invention has been almost completely ignored.

59. These so-called "shadow systems" in education are springing up throughout the world. They allow for a natural compensation and balance against deficiencies in the formal education system. As unorthodox and new institutions, they are more flexible and innovative. More important, they often create a challenge for the formal establishments which can set off major reform on a nation-wide scale. The present generation of "student-centred" programmes, "activity methods", "group interaction", course structure around problems or themes, team teaching and the like have all been imported from these alternative schools for the handicapped, for the children or parents discontent with the traditional system. In fact, to point up the irony of the present situation in education, let us recall that experimentation in the secondary schools and universities owes a great deal to schools for the "disadvantaged" and "less gifted" - the schools for the rejects from the formal system which practiced individual instruction and independent learning long before these methods reached traditional institutions. When schools for the "disadvantaged" act to regenerate the patterns of educating the "advantaged", we get some sense of how far we have gone astray.

60. Or, rather, we see once again the importance of providing for a variety of educational paths for various abilities. In the last analysis, this may prove to be the most useful definition of democratization.

Education in the market place

61. The most recent phenomenon in developing and market-economy countries is sometimes called the "coupon" or "voucher" scheme; it seems to be inspired by the Danish example. The "coupon" idea is simply that of giving the money directly to the student rather than to the educational authority. The university student then takes the amount that he costs the State and goes to any accredited institution of which there are likely to be many

sorts. This, in fact, is close to the type of system practised in the United States at the close of World War II, the famous "G.I. Bill" for returning soldiers desiring to take up or finish university studies.

62. A number of American and British economists and educators have looked into this solution in depth. They argue that the establishment of "full-cost privately financed education", funded by government stipends, would be more fair than the present system. The institution would be obliged to meet the needs of the student, not the reverse, since he was in fact "buying" his education as he would any service, and would then be far more demanding. If he were poorly served, he would spend his education allotment elsewhere, in a "competing" university. One of the most convincing by-products of this proposal is that the university professor could no longer spend the better part of his time on research or outside consultation. His salary and station would depend on the laws of supply and demand, that is, the worth that students gave to his teaching for their own personal and vocational purposes. A poor teacher, both in the sense of expert and pedagogue, would be paid in kind. At the same time, prestige in the university would return to the teaching professor, rather than the research specialist. We have here, in fact, a modern version of the oldest university system, that of Bologna in the twelfth century, where professors lived from the fees of students coming from throughout Europe and students used collective boycotts when professors joined to raise the prices of their instruction.

63. The advantages and disadvantages, uses and abuses of the coupon proposal would take us too far from the subject, and are probably fairly obvious. There is, however, one point to be made: the objection that such a scheme would be too expensive is not as convincing as it seems at first. Clearly, the structures of formal education would not stay the same. One would meet the consumer's demand by different means: by the use of mass media, by decentralizing the school system, by separating the school's services along the lines of modern management techniques to reach a clientele with special demands and different groupings. The local setting would provide more of the resources for instruction than the traditional classroom. Many of the "materials" would be produced in advance, freeing the teachers for group and individual work. Buildings and facilities would be used at different times in the day and year. Is it accidental that many of these changes mirror almost exactly many of the most radical reforms in education today, and that this pattern resembles typical descriptions of education in the year 2000?

64. This is not to say that the coupon scheme is the best solution for modern education and its democratization, but rather that all these trends and demands are beginning to converge. The ending of the divorce of the school from its environment, the need for individual patterns of teaching and learning, the related demand for "open-ended" education with an accent on adaptability and independence, the creation of interdisciplinary programmes, examination criteria set closer to the aptitude for continuing self-instruction, the achievement of mass education by a variety of patterns and sequences: these are hallmarks of educational reform throughout the world.

The school and its community environment

65. The most important convergence, however, is in the claim of a developing community on the school and university. For educational reasons, the movement between local experiences and classroom reflection must be continuous to be effective. On the same grounds, the learning resources of a community on the move are enormous; a residential, commercial or civic building is a better classroom for many purposes and is the place where school lessons will be eventually applied. For economic reasons, it is less expensive and, in the long run, a better investment, to link rural and urban environments to the organization of school facilities and practices.

66. Finally, for social reasons, a school system tied to a developing community and co-ordinated at the national level is likely to decrease the advantages of one class or income level or another. The school or university becomes a continuing service for those who want and need to use it. The implication here, of course, is that the community manages the school and offers its provisions in the same way as its health and welfare services. At the national level, standards, requirements and overall direction give the measure for special orientations or additional tasks to be carried out in the various local operations. An example in India would be the central government's provision of materials on India's unity in diversity.

67. At the same time, the community makes demands on the resources of the school and university to meet local requirements. The traditional urban university, for example, has managed to keep its specialized experts and services from urgencies and problems that are acted out two streets away or in front of laboratory windows: crime, poverty, air and water pollution, breakdowns in service and management. These, of course, are problems of situations that do not match the university's division in specialization and disciplines. In most occupations, however, students will find themselves applying whatever knowledge and experience they have acquired to a world organized differently from a community of scholars(1). Very simply, then, the purposes and needs of the urban or rural community should largely determine the programme, the architecture, the management and the personnel of the school and university. In exchange, community officials and national authorities should ensure the protection of the university's most sacred and perhaps most important function: its rôle as judge and critic. It has been argued that the mark of a civilized State is in creating and continually supporting an institution made up of its most talented citizenry and given the mandate to criticize and redirect its patron.

68. Whether a decentralized and localized university can both serve and judge the surrounding community remains to be seen. We do have, however, a new type of institution that is spreading in both developed and developing areas, the "community college". At the outset, these were two-year, post-secondary schools that provided most of the semi-professional training in

(1) That most university professors approach students as future specialists or teachers in their particular field (and test them accordingly) reveals the gap between academic certification and post-graduate employment.

commerce and technical skills requiring more than in-service instruction. A number of these "Colleges of Advanced Technology", "Institutions of Technology" and "Junior Colleges" have appeared in the past five years. In industrialized countries, they reflect the growing need for new skills, often the result of the technological developments which have made obsolete a number of semi-skilled professions. They also prepare for "service employment" in health, recreation and youth work. In a number of developing countries (Ceylon, Chile, India, Thailand, Mexico, Ghana, Lebanon), their function is chiefly one of providing urgently needed "middle-level" cadres in agriculture, engineering, health, literacy, rural development, industry and teaching.

The difference between pieces and systems

69. There is, of course, no reason why these community-centred services should be limited to higher education. With some adjustments, they could become a model for the primary school system, as is the objective of a decentralized television network in the Ivory Coast, or for the secondary level, as in Sweden. The principal difference would be that the class would be likely to meet as a group for longer periods of time, and might often find a central schoolhouse to be the most convenient place for certain kinds of programmes in which interaction is necessary between some or all of the class. That is to say, as far as the school itself is concerned, rather than drop out, one tends to "drop in" for specific tasks. The primary school would also be made up of "pupils" of various ages, meeting in different combinations at different times depending on their own programmes and requirements. As for the examinations, the pattern would be rather that of each student testing himself against his own progress and requirements, rather than against the rest of his class. With a cumulative folder made up of his background, his interests and aptitudes and his progress through various cycles, one might spend more time on matching pupils with programmes and jobs than on sifting out academic "failures" from "successes".

70. The implications, however, are staggering. It is easy to see that a restructuring of post-secondary education will lead to little permanent change if the primary and secondary structures remain the same. As the levels are interrelated, an innovation at one point or another, without fitting the pieces into an integrated process, may create as many problems as it solves. To modify primary education and return to a centralized, passive, academic secondary system is useless and wasteful. To undertake a reform of curriculum at the secondary level without a preparation in primary school, synchronized with the upper levels, is likely to end in disruptions on both ends. For instance, when the "new mathematics" was introduced at the end of primary school, few countries thought to prepare their secondary school teachers, who continued to teach "old mathematics" or, in a few unusual cases, tried to learn it from their pupils.

71. In many ways, the reform of an educational system is like a planned landing on the moon. One begins with the goal at the end and works back through the entire process of preparation, training, assemblage, testing and research, the necessary combination of human and material resources, and the schedules of sequences and events. As in an educational plan, the first step is often the design of a "model which will show the likely patterns and alternatives of operation. Unlike most educational plans, however,

the most important element in the process is the instructional system itself, the interaction between the student and the materials necessary for his continued learning. Only an educational system built around this core, as we have seen, has the chance of being both more democratic and more efficient. At the same time a restructuring that falls short of these dimensions is likely to bring about a situation where, as W.H. Auden puts it, we are lecturing on navigation while the ship is doing down. Finally, the task is far less that of amassing new provisions than of streamlining and redistributing others. In highly industrialized countries and, to a great extent in the non-industrial world, we are essentially trying to replace overgrown institutions with more simple ones which, as is always the case, function better. And the processes of "planning", "innovation" or "reform" are reduced to their basic common denominator, that is, rigorously applied common sense.