ty, and yet there seems also to be less and less synchronization among the different elements of the system.

E. B. White spoke for all of us in this conference room when he said: “I hold but one share in corporate earth, and I'm uneasy about the management.”

Given this situation, it is imperative that the dialogue, the community and consensus building brought about by your annual international assemblies and the other activities of your Council, continue to develop and broaden. The constructive process of human interaction you and other key groups in the world set in motion, help maintain fundamental social and cultural trends in a favorable direction—toward ultimately less dangerous, more cooperative, and stronger institutional arrangements.

Indeed, we may have no choice but to work in practical ways toward the development of a functioning human community if we are to survive as civilized human beings. If the world is to become a fit place to live in, a place where all may have at least some prospect of enjoying the fruits of civilization, we have to face up to the first imperative of interdependence: we must strengthen habits of constructive communication and cooperation across national, cultural and ideological borders.

The work of your Council (in offering opportunities for international cooperation in educational research; through exchanges, publications, surveys and workshops in educational technology; through field-based and performance-based teacher education; through conferences on educational planning in terms of the pervasive social change I have already mentioned; and through creative pilot projects in organization and curricula) are most valuable contributions in constructing this vitally needed intercultural cooperation in global education.

Perhaps national educational systems, like individuals, must as they grow older, more experienced and wiser, wear bifocal glasses. For domestic and parochial needs, they can look through the lower lens for matters close at hand, and read the fine print of local life. But at all other times, they must look through the higher lens at the wider, general, universal and international horizons.

The challenge in teacher education today, it seems to me, is to meld the cultivation of the pride, security and pleasure in one's own national uniqueness, while identifying with those far larger concerns shared by all mankind—the common need for unity, cooperation, sharing, coping—indeed for justice and for peace.

In a meeting a few days ago on the White House lawn with 5,000 foreign and American young participants in the American Field Service's International Scholarships Programs, President Ford told this assemblage: “The spirit of seeking understanding through personal contact with people of other nations and other cultures deserves the respect and support of all. For the best hope of making the world a better, more peaceful place, is to seek even greater exchanges of persons of different backgrounds and different nationalities.”
TRENDS: Richardson

It has been thanks to professional associations like the International Council on Education for Teaching that a favorable climate for vital change in American education, and in education internationally, has come about. You have done this by encouraging a global perspective in the training of teachers.

Cognizant of the excellent progress you have already made, and of your enthusiastic commitment to coping with the increasingly complex problems that interdependence imposes on global education, I am particularly pleased to have been invited to greet you, and join with you today.
European Roots of Higher Education in the Americas

The universities as the first institutions that were organized systematically for the creation, preservation, and transmission of the high forms of knowledge and culture are a relatively recent result of the historical process of Europe. They made their appearance at the end of the Middle Ages, and since their beginnings they have responded to fundamental problems of structures of, and relations between, the estates of society, which continue to be matters for reflection. The great events that changed the economy of the European society, that increased man's knowledge of the universe and of himself, gave strong impetus to the appearance of universities and the organization and enlargement of those already existing. Since those times, and being transformed according to the historical trends, the universities have been and are the most important centers where one generation has transmitted to others knowledge received and increased. Sometimes the emphasis has been put on dogmatic and exclusivist knowledge, sometimes on tolerant and participatory knowledge.

The universities in the Americas were transplanted from the European universities, a large number coming from Spain to the Latin American countries, and a smaller number coming from England to the Anglo-Saxon countries. During the colonial period the universities cultivated the disciplines that were a continuation of the medieval orientation: theology and canon law, letters and philosophy, a prolongation of the thinking of the Upper and Lower Middle Ages.

However, the thinking of the Renaissance and the rationalist and empiricist currents, characteristic of modern times and a different influence in the American colonies, were establishing the philosophical bases of the independence movements of our countries. Americans in the North and in the South drew inspiration from an anthropocentric thinking that returned to man the responsibility to govern himself and confidence in his ability to transform the world that surrounds him and put it at his service.

Differences in Higher Education

The universities of North and South America will play different roles, to the extent that their societies pursued different ideals and used different methods for attaining them. The United States universities will try to satisfy the requirements of training human resources that a society with a formidable capacity for expansion requires. This response of clear pragmatism has been constantly questioned by idealistic conceptions, which have reminded us of the need for disinterested study, for scientific research, and for transcendental thinking. Among the notable contributions made by United States universities we may...
mention the Land Grant Colleges, the origin of the State Universities, which took science and technology to all the regions of the country, and the Junior Colleges and Community Colleges, which offered a new lower level of training within higher education. These and other contributions are the concrete expression of the U.S. university dream: higher education for all the young people at the age to enter the institutions at that level.

The Latin American universities were less affected by the new modern philosophical currents. With independence they assumed functions of intellectual leadership of the peoples, sometimes in too conservative a way, sometimes favoring the changes necessary for social progress. It fell to Andres Bello to summarize in a memorable speech, at the time of the reinauguration of the University of Chile, the functions of these institutions within recently organized nations, where not only professionals suited for productive life but also persons trained in all the disciplines and activities of civilized life are needed. However, the Latin American universities tended to adopt the structure of the Napoleonic University, with its emphasis on the professional schools, and its lesser interest in philosophy and the arts. This university model, which still survives in some countries, with modifications that come from reform movements that began at the beginning of this century, has been performing some of the functions that belong to it, but others it has omitted or not done well. Therefore it is necessary to make an effort of research and formulation directed at reestablishing in the Latin American universities the complex of functions and responsibilities that will enable them fully to carry out their mission of intellectual leadership.

I should like to mention two concepts that I believe may be useful in distinguishing the orientations of the universities in the various regions of the hemisphere. In the first place, higher education constitutes one of the most important elements in the process of economic and social development of a country, a province, or a city. This very evident affirmation can be verified without great difficulty when one studies empirically the contributions that an institution of higher education has made and is making in any of those contexts: the number of research studies on the natural resources of its zone of influence, the number of contributions to the development of certain technologies, the contribution to the establishment of productive centers on the basis of satisfied needs for human resources. However, some of these functions have not been performed by institutions that have limited themselves to training professionals, without feeling themselves committed in the effort of research, for lack of resources for doing it, or that have not given their graduates either the competence or the sense of responsibility to make them elements of progress and development. To regain awareness of the need to investigate everything that may serve as a basis for development in a zone is to take the road toward an effective contribution to the benefit of all.

In the second place, the universities have a large responsibility in the general educational process, which, to the extent that it is assumed, gives the institution one of its most important projections. In the United States the universities
have taken education unto themselves as an area of knowledge and of training of teachers at all levels and in all specialties, and out of the hands of the normal schools and teachers' colleges. In this way the universities have an opportunity to give a foundation and an orientation to the educational process, and to give quality and depth to those they prepare to be professionals in education. This is in evident contrast to the universities in countries where education is not incorporated as a discipline of research or professional training, and in which this responsibility falls on normal schools or pedagogical institutes, oriented and supervised by the Ministries of Education. This incongruity has had negative effects with respect to better knowledge of the educational process and the improvement of the professional level of the teachers.

**Future of Higher Education**

Let me give you some observations about the future of higher education in the hemisphere, in relation to the trends that are now predominant in the universities. In the first place, the United States has established a capacity for almost all young people of college age who wish to do so to pursue professional studies. Other countries in the world have tried to follow that example, and at present the percentage of young people who do go into higher education is very large. All this growth has originated a number of phenomena that accompany massive higher education, designed to attend to large numbers of students. One of the problems that has been studied most is that of the mounting costs and the problems of financing them. Maintenance of the university community with its high level of needs constitutes a very high social charge, and therefore there is serious discussion of how to raise the universities' productivity or reduce their costs. Higher education in Latin America is facing these problems. At the same time, there have been heavy criticisms about its yield, regarding its research work and the number and quality of the professionals it graduates.

Secondly, the efforts to give the whole population an opportunity to receive the benefits of higher education, in everything that may be of personal and social interest, has given these institutions a new dimension which takes them so far as to offer refresher courses for graduates and introductory courses for adults who have not had any higher education. These efforts have taken various forms, from the already traditional and admirable university extension service, with correspondence studies supervised at a distance, to the Open University with its integrated design, in which all the elements of modern communications and the coordination and supervision efforts of a specialized staff are involved.

Thirdly, the increasing interest of the members of the university community in participating in the institutional processes found its concrete expression in Latin America in the postulates of university reform, which, in ratifying autonomy as the essence of academic life, proposed cogovernment as a formula of participation of both professors and students in the direction of the institution. In practice, these concepts have contraditorily served to provide the
basis for political action by the universities in the countries and for action by
the national parties in university life. At present, the confirmation of autono-
my in the sense of intellectual freedom of professors and students to do re-
search, to teach, and to learn, should have a correlation with the participating
interest of not only those who work or study in these institutions, but also
those who maintain them and make them possible. The idea of the Chinese
university, in which the students must have the backing and approval of the
community that supports them, seems to be an extreme expression.

In conclusion, I should like to summarize a little my vision of higher educa-
tion in the hemisphere with its relationships and influences. In the first place,
and difficult as it is to change academic traditions, I believe higher education
in Latin America is tending to incorporate forms from United States higher
education that have demonstrated their value. An example of this is the expan-
sion of higher education in Mexico and Colombia, with the appearance of new
forms of institutions, etc. In addition to the structural changes, one can see a
renewed interest in functions such as research and extension work, which tend
to change the appearance of this educational level.

Secondly, I think that higher education in the United States, without aban-
doning its functions, which have given it a preeminent place in its society, is
going to change its structures and procedures to reach the limits of the ideal of
serving all the members of the communities who are interested in acquiring or
applying knowledge of some sort, and in such a way that the costs will not be-
come a negative factor. This trend should have an influence on the institutions
of higher education in Latin America. Thirdly, the Latin American universities
should totally assume their responsibility in the general process of education,
which will produce better knowledge of the process and an increase in the
quantitative and qualitative yield of education by training the teachers better.

Fourthly, higher education in the hemisphere will be oriented toward a
closer relationship between the members of the institutional community and
the society that sustains it, on the basis of a greater degree of public services re-
ceived.

In short, we hope that the new style of the universities of the American hem-
isphere will respond to all these requirements and to all the specific problems
that affect the economic and social development of our countries, and pursue
efficiently and in solidarity the permanent ideals of higher education for the
preservation and increase of the cultural heritage of mankind.
Cultural Pluralism in Peru

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Historical Background

One of the outstanding aspects of the Peruvian society is its multiform character, and few aspects reflect more eloquently this character than the linguistic situation, in which besides those who speak Spanish one may find those who speak one of several Indian languages and those who are bilingual. It was calculated that our population in 1975 was 16,000,000 inhabitants, of which 1,600,000 were Quechua-speaking, and between six and eight million were bilingual (Quechua and Spanish).

Lack of communication is, of course, the result of this situation. Every Peruvian knows that Quechua is spoken in some regions of our country; fewer recognize the existence of Aymara, and even fewer have heard of the Machiguenga, Huarayo, Aguaruna, Campa or of the half-hundred languages which make up the real picture of the Peruvian multilingual situation and conspires against our purpose of being an integrated nation.

There is not only linguistic plurality, but the coexistence of several cultures which show similar values and behavior systems. In this respect we cannot deny that at the same time there is a diversity of behavior patterns between an urban group of the coast, a rural community in the mountains or a selvatic population.

From 1532, with the Spanish Conquest, the influence of the Spanish language starts. The colonial system, which lasted three centuries generated a sociolinguistic reordering. Since Independence the Spanish language has expanded and Quechua and Aymara—the main Indian languages—have lost influence. Basically two ethnic and cultural groups opposed each other: the Inca culture and the Spanish colonialism. At the time of the Conquest, the Incas were trying to establish a united social organization utilizing the cultural patterns of the populations incorporated in the Tahuantinsuyo, depending on the common language—Quechua—and on the expansion of their own conception of the Universe.

With the Spanish Conquest, however, the prevailing group and its criollo descendants imposed their culture and a new social order which, however, never became totally articulated into an organic whole. Indigenous cultural groups have survived though modified by the Spanish culture.

The structural changes which have taken place in my country have given a new orientation to our cultural policy, which intends to achieve an equalizing model to do away with internal unbalanced conditions. We seek the design of a nation socially and culturally integrated.

For this reason, Quechua—the language spoken by 10% of our population—has become, along with Spanish, an official language. This policy of making official the Quechua language means that we have taken the pluralistic option,
that we can visualize a kind of society respectful of ethnic differences, ensuring that the groups integrating the new totality may find forms of general articulation consistent with different languages and cultures.

Pluralism is the option chosen to achieve and strengthen a sense of a nation which can be shared by the major groups of the country. A more balanced national integration is sought so that the Quechua-speaking population may be freed from the stigma of being a marginal population within the Peruvian society.

As the new law provides for the teaching of Quechua to the Spanish-speaking population, in the future we hope to have an image of a bilingual and multicultural society based on the reciprocal knowledge of the necessity of understanding the two most important cultures in the Peruvian state.

If 10% of our population speaks Quechua, we can see how important it is to strengthen internal and regional communication. Reforms such as the Land Reform can only be achieved with the help of the Quechua language.

A double instrument of communication should serve to maintain and widen outside contacts, and to enrich the linguistic and cultural communication throughout the country.

This is a process which will take a rather long period of time, but which will progressively permit a redefinition of social and cultural behavior of the major sectors of the population of our country, and the modification of the negative psychosocial attitudes between them.

The project of a bilingual society which starts with the elevation of Quechua to rank as one of the official languages aims at a society that is pluralistic and integrated, a national society which shall offer equal possibilities to the heirs of both languages and cultures, basically the foundation of modern Peru. It is an effort to give a realistic solution to the most outstanding aspect of a multilingual reality.

There are other vernacular languages in Peru which are being used in some places of our territory—the Amazonian region for example—for which our educational law has provided a bilingual education.

This policy is consistent with the humanistic philosophy of our government and it shall be gradually implemented because the expenses of implementation of a regular system of bilingual education are enormous. There shall be a so-called linguistic planning for bilingual education and for implementing the officialization of the Quechua language.

**Bilingual Education**

The first project of bilingual education was put into practice in the Peruvian Amazon region, with the Summer Linguistic Institute in charge. This is a U.S. organization which has been working with us for almost thirty years.

The Institute made a study of the different languages that were spoken in that region, and wrote booklets using those languages to spread knowledge on health, community development, basic instruction, trade, etc. Later, Spanish was taught, and a coordination was established with the regular
school system. Similar experiments have been done in the Andean regions.

The national policy on bilingual education is not merely an educational system to teach Spanish, taking advantage of the vernacular languages; it is defined as a bilingual and bicultural education with all its broad implications.

In the second place, the law does not speak of the old classroom but of the núcleo, which is a basic community organization seeking the cooperation of all and the promotion of community life within a geographical area. The núcleo comprises several schools and is assisted by a community council.

The support for the implementation of the law which officializes the Quechua is not limited to the formal educational endeavors. Now the massive means of communication like radio and television generate the atmosphere in which community and personal life are led. Radio is more important than television in the rural centers. There are 204 radio stations which cover the whole country. At first, however, it is important that television help to fight urban prejudices against the Quechua language, the Andean man and his culture.

Formal education shall, of course, be a basic channel through which bilingual education shall be administered. Extension education shall also play an important part in the educational effort.

Now, one argument of those who are against this cultural policy. They believe that in 20 or 30 years everybody in Peru will speak Spanish. If we compare the reports of the Census in 1940, 1961 and 1972, we can see that in 1940 the Quechua-speaking people were 31% of the population; in 1961 it was only 17% and in 1972, 11% of the total population. There is a definite and progressive increase in the number of those who speak Spanish.

Implementation of Bilingual Education

The teaching of the Quechua language, according to the General Plan of implementation, has been compulsory at all educational levels since 1976. Studies have been made to initiate these activities. Teacher training plans are being developed for the teaching of the Quechua language using the methodology of a second language. Experimental programs to train teachers are under way.

Bilingual education programs for Quechua-speaking people from the rural mountainous regions and from the jungle are being prepared. Educational programs have been devised aiming at the preservation and promotion of the literary production of the vernacular languages.

It has been agreed that evaluation of actions must be made every two years.

An important step for the implementation of the law which officializes the Quechua language is the agreement signed between the Ministry of Education and the Agency for International Development to establish an experimental program of bilingual education at the basic education level in the Cuzco region. Such agreement—which is to last three years—aims to accomplish the following objectives:

1. To train a group of teachers for the application of an experimental project of bilingual education for the first and second grades of basic education.
2. To produce and experiment on teaching materials for this project.
3. To determine the most adequate methodology and techniques for bilingual education in the region through research.

The actions to be taken are the following:
1. The establishment of a committee of high-level specialists to give advice for the project.
2. The establishment of a team of intermediate-level specialists responsible for the programming, implementation and evaluation of the actions to be taken at Cuzco.
3. The organization of a course on the linguistic, social, cultural and psychological conditions in the Cuzco region. One hundred bilingual teachers shall participate in this course which has the purpose of unifying concepts about the subject matter of bilingual education.
4. Educational materials for the first and second grades of basic education for the student as well as for the teacher shall be produced applying methodological principles of bilingual education.
5. The organization of a course to provide specialization to ten of the one-hundred teachers who took the former course. They shall participate in advising the teachers involved in the project.
6. Three workshops shall be organized to make readjustments and improve the application of bilingual education in the region. Follow-up procedures shall be used to evaluate methods, techniques and bilingual materials.
7. There shall be a seminar to motivate teachers on the problems of bilingual education with the purpose of implementing future actions in the field.
8. A research program shall be developed to establish the methodology, techniques and the necessary materials for bilingual education. This program shall be under the responsibility of the team of 10 specialists who were mentioned before.

The sum that has been allocated for the project is approximately $134,056.

Measures for the implementation of the law which officializes Quechua are, thus, under way. A basic Quechua alphabet is being prepared by the high level commission presided over by the distinguished linguist, Dr. Alberto Escobar.

But there must be a country-wide understanding of the reality of the nation in all its aspects including cultural pluralism, so that the efforts of bilingual education may have general approval and support.

A suggestion has been made for the creation of a coordinating office of bilingual education to set up priorities, see that actions are taken according to plans, and do general evaluation work. Such an office might be set up within the structure of the Ministry of Education. The educational reform—now under way—provides strong motivation, adequate actions and the necessary coordinations to fulfill the purposes of our pluralistic cultural policy.
Educating a Profession: For What Purposes

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New Directions in Teacher Education: Human Service Education

The report of the AACTE Bicentennial Commission on Education for the Profession of Teaching closes with the following challenge: "What the profession needs is a totally new set of concepts regarding the nature of the emerging human service society, its educational demands, the kinds of delivery systems necessary to provide public access to continuing educational opportunity, and the types of professional personnel and training required to reform public education." I want to discuss the concept of teacher education for the emerging human service society more specifically than it is addressed in the report because I believe it has special significance to the profession of teaching, especially when viewed from a futures perspective. I speak on this topic with an interest that grows out of my first-hand experience in reorganizing a college of education three years ago around this theme. Some of you may not know that my college has been renamed, College of Education and Social Services, to reflect this transformation.

We are in the midst of a dramatic change in how people earn their living as well as learn their living.

Sixty million jobs will change in character in the next generation. Six-year olds starting school can expect their occupations to change at least three times during their lifetime, as skills become obsolete and facts wear out at a more rapid rate.

In order to keep pace with rapid changes in all aspects of life, no one will ever again complete education. In the past, continuing education has meant that individuals should continue their personal development on their own. In the future, all our citizens must find a formal education structure available which will prepare them to take advantage of new opportunities and to face the insecurities of a changing society promised as a better way of life.

The learning force will soon exceed the work force. Rather than talking about staffing schools, we must now talk about staffing the learning society.

At the same time we prepare people for productive lives in our changing economy, we must recognize that the notion of people as workers is becoming obsolete. However society's work may be distributed in the future, it is certain that most of the potential productive capacity of our population will not be needed to keep the economy functioning. Under such conditions, the quality of life led will be as important to a person's identity as the kind of work done. Education will thus have to include in its objectives preparation for the primary work of life, as well as a life of work, or as Buckminster Fuller aptly phrased it, "learning a living."
In contrast with the old industrial order, social analysts predict an emerging human service society which will employ increasing numbers of people providing services in proportion to those hired to produce goods.

A New Kind of Professional

One major implication of the prediction of an emerging human service society is that a new kind of human service professional will have to be prepared. Until recently, education and social service personnel interpreted professionalism in extremely conservative ways. They retained a loyalty to middle-class values, deferred to administrators, kept silent about deficiencies of educational and societal services, and preached a gospel of dedication which smacked of mindless acquiescence.

Robert Nasi and Edward Ducharme, of my faculty at the University of Vermont, have defined the kind of human service professionals needed for the emerging society as those who have abandoned thoughts of their own vested interest to concentrate instead on the long-term human and environmental effects of educational and social policies and programs. Professionally, they will be much less deferential to arbitrary authority, less specialized (in terms of specific knowledge, particular tasks and selected clients), and more assertive, flexible, advocate, and political. They will be competent to provide a variety of services in many sites—store-front schools, social agencies, correction centers, senior citizen centers, and so on; whenever their services are needed. Furthermore, it should be noted that in every human service agency there are now, and will continue to be a need for, trainer-teachers whose responsibility is to design programs, teach, and evaluate educational progress for other human service professionals.

A New Preparation Program

What I am leading up to is this: in the future our professional education programs must provide preparation for a variety of service professions, such as public school teaching, personal counseling, consumer advocacy, social work, and personnel management, plus a variety of self-help and advocacy groups. These groups will emphasize the general application and transferability of specialized skills, knowledge, and philosophies in human service work taught previously in narrowly defined, separately organized, educational programs.

New training programs will stress practical skills and techniques and will also emphasize the multi-disciplinary knowledge needed for understanding the dynamics of people relating to people in a variety of societal and educational situations. Trainees will view themselves as "human service educators" and not solely as classroom teachers.

As we said in the CEPT Report, a human service educator is an effective teacher—at times a counselor, a human rights activist, a political ombudsman, a stimulator of human potential, and a group organizer. Whether through subject matter, human relations skills, or specific technology, a human service educator is able to help people discover more effective and satisfying means to
improve themselves and their social institutions. In the sense that human service educators are helping people to learn a variety of skills, understandings, and values, then every human service educator is a teacher.

The "human service educators" of the future will perform a broad range of services. They may be street workers or teach in settings which involve children and parents. They will relate to social service personnel in corrections, mental health, and rehabilitation agencies. They will be part of a team whose goal is to create healthy human communities. Indeed, the range of professionals educated by the new programs must be as broad as the needs of the communities served.

Needless to say, the current under-employment of teachers could be alleviated if educators were to diversify and begin to expand their developing human service opportunities. Thus, the central question for colleges of education is not "How can we continue to survive?" but "How can we help all professionals who work with people in any helping capacity to become more effective teachers?" Only when educators reflect an enlarged view of the settings in which teaching is a vital function will the profession of teaching reach its full maturity. The teaching profession would do well to heed the CEPT Report recommendation that colleges of education seize the initiative by developing collaborative or unified programs across the human service professions to prepare professionals who can function effectively in a variety of human service careers.

A New Strategy for Reform

The strategy for improving the schools and community agencies in the past was to prepare new professionals with the most recent knowledge in their field, and send them out as crusaders to improve the schools and social agencies. In a large part, this strategy has failed—the new recruits and their ideas were swallowed up by the system. The experienced professionals, those in the field who are 40-45 years old with 20 to 25 years of service left, are the "career" professionals. Unless we reeducate them right along with the new professionals, the schools and social agencies will not improve significantly.

New approaches to teacher education must be developed. Required is a strategy which brings together preservice and inservice teachers along with other social service personnel in the same training program in a team relationship. The program should have as its primary goal the improvement of all aspects of human service. Training should be developed as a by-product of a joint search for better ways to improve the delivery of educational care to people at all developmental ages and stages. From this cooperative school-college-community commitment to the larger end in view, creating healthy human communities, the training program will receive its relevance and vitality.

If our colleges of education are to become powerful instruments for social progress, we will need a new design. Central to this design is a new partnership among agencies operating at different levels of the human services delivery system. We can no longer live in splendid
isolation. We need to recognize that preservice education, continuing and inservice education, schools and social agencies, and the university and its colleges are interrelated and interacting components of one system. Colleges of education working along with other colleges, and cooperating teaching and community education centers, must become the training and research arm of that delivery system. Both financial and personal resources must be directed towards strategies that link schools and social agencies seeking to change with colleges seeking to break out of established patterns. Shuffling courses about is not the answer. A major shakeup is needed in the philosophy, form, and substance of professional education from the beginning introduction, extending throughout the lifetime career of education and social service professionals.

Educating a Profession: for What Purposes?
A New View of Accountability

If the teaching profession is to be visionary, it must also be accountable. The real accountability of the teaching profession runs to those who come after us. We control, for better or worse, the environment within which they will live their intellectual-personal lives. We can destroy it and them. Worse yet, we can destroy their hope and their happiness by the framework of ideas we help them confront.

A profession which claims the authority over the intellectual lives of this civilization will be held responsible by its children for whatever reality they will ever know. Whatever our governance structure, or our fiscal authority or our methods of accounting, we had better be sure that our act of faith in the future creates a world in which our children may live to bless us.

The future is something we make. Trend is not destiny. Those who hope that education can be completely objective confuse some very important matters. There is no such thing as a "value-free" education. There is only the choice to be conscious and positive about our values, or to conceal and confuse them.

Human service educators and public school professionals had better have conscious, positive ends values. There never was a time when values were so much in demand.

The most important thing we could do at this particular period in history is to get our ends values clarified. Values serve the same functions for a profession that roots serve for a tree. Values pump vitality into a profession and fashion its character.

It is essential to know the difference between means values and ends values. For example, at many school board meetings and teacher conferences today, there is much talk about going back to the basics—back to reading. What bothers me most about this dialogue is that some people are talking about reading as if it were an end—a purpose for education. Reading is a means value, not an ends value.

To teach a human being to read, write, spell and do math and science with technical proficiency only, while neglecting to point out the moral purposes
for which these skills are to be used, is to produce a menace to society. Reading is a lethal weapon in the hands of a person who uses it to build a better bomb to blow up his neighbor’s house because his neighbor happens to have a different shade of skin color.

As Robert Nash reminds us, we must push accountability to its moral limits. There is always another meaning implied by accountability. We are accountable when we are the cause of something. It makes little sense to speak of responsibility to our clients solely because we are teaching them to read, write, and compute, if, as an unintended outcome, we are also producing what Herbert Marcuse has called “unorganized de-humanized and one-dimensional, consumer-voters,” or what C. Wright Mills has called “happy robots.” We need to look no further than the recent Watergate tragedy for this lesson. We saw a parade of dishonest lawyers who undoubtedly studied the Bill of Rights backward and forward in law school. What was missing in their education? What was missing in the education of the group that tarred and feathered the school principal in a Detroit suburb because he was trying to organize city-suburban human relations projects? As educators, we must be held accountable whenever we cause students to accept the “beat the other guy before he beats you” assumption about the world in which they live.

The most severe shortcoming of our educational and social services programs is that we have concentrated on means rather than ends. Too often, we have maintained the “illusion of neutrality.”

Education in its broadest sense (Philip Phenix calls it the engendering of “essential meanings”)—the kind of education that takes place in homes and on the streets as well as in schools, colleges, and social agencies—is the single most powerful force for eliminating the problems of discrimination, poverty, war, injustice and corruption.

We must restore a sense of social purpose to all levels of the education and human service delivery system. We must ask again, “How can we best use our time and talent to serve the public interest—to create a future more humane than the past?”

In conclusion, professionalism is still an evolving ideal neither owned nor fully defined by the established professions. There are multiple problems implicit in a too easy acceptance of professionalism as a guiding ideal. At its worst, professionalism connotes exclusion, self-protectiveness, excessive specialization, self-aggrandizement, formalism, authoritarianism, hierarchy, and mystification. Obviously, this is not the professionalism my colleagues and I urge in Educating A Profession. At its best, professionalism combines a high quality of basic knowledge, informed practice, and social commitment with a profound, individual dedication to helping people enrich their lives in their own best ways.

We need to continue to enlarge the meaning of professionalism so that it becomes more democratic, client-nurturing and political than that which presently characterizes the established professions. In this regard, educators will have to consider the opportunities for enhancing professionalism inherent in the
women’s rights movement, the rise of teacher militancy, the expansion of consumer consciousness, and cultural pluralism, multi-cultural education, and global awareness.

The new teaching profession must shape the future, not just accept it.

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University Teaching: 
Closing Address at the Washington Assembly—1976

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University Teaching

Until very recently, most universities around the world, including those in my country, regarded themselves as the alpha and the omega of what should be taught—to whom, by whom, and for what purpose. They conformed with the injunction that says:

It has been decreed by powers ethereal
That those who live in Ivory Tower
Shall have heads made of the same material.

Some universities after many decades have just discovered teaching as a basic function of higher education.

Recent rapid expansion of institutions of higher learning, necessitated by social, economic and political pressures in the 1960's, brought universities face to face with the problem of relevance and flexibility in terms of the student and his society, which in turn has to do with the form and content of the curricula offerings. Happily, the later part of the 20th century has witnessed greater concern for better teaching than all the previous centuries put together. Lecturers, professors and university administrators have come under fire at different times for being impervious to change. I believe that it has been said with some justification that changing the university curriculum is like moving the cemetery: it's a messy affair!

It could be said that poor teaching abounds equally in primary and secondary schools as in the universities the world over. Traditionally it is assumed that anyone with a first-class degree or a Ph.D. can teach effectively at the university level without any professional education training. Any university graduate can attest to the fact that he has at various times come across poor teachers or lecturers at the university. Holders of advanced degrees may with few exceptions be good research workers but it is not axiomatic that they are naturally good teachers, either at the secondary or higher education level. There is a growing awareness of the need for some orientation course or an in-service program for new lecturers. Here in the U.S.A., a number of American universities have "an apprentice college teachers' course" or internship program for prospective university teachers. New York University started an elaborate program for this purpose some twenty years ago. In the United Kingdom the Robin's Report indicated that 58% of the university teachers surveyed felt that new university teachers should be given some form of organized instruction or guidance on how to teach. Bruce Trueman in his book Red Brick University allows future teachers to ask:

"Why do we have to spend a year after taking our degrees in obtaining a
TRENDS: Fafunwa

diploma testifying that we have studied and practised the technique of teaching, whereas if we were going to take up the equally difficult work of University teaching we could get posts without having had any training whatever?"

It seems to be assumed, submits Truscot, that anyone with a first-class honors degree and an inquiring mind is capable of lecturing and teaching—to say nothing of researching—without any sort of technical preparation. He refers to other professions, such as the ministry or medicine, where internship and previous practice are obligatory, and he is at a loss to find an explanation of the university attitude toward the teaching professions, "except that the universities are amateurish bodies which have never faced up to certain elementary facts..." Mercilessly inveighing against inaudible lectures, lax preparation, aimless bumbling from ill-written scripts, and the failure of so many lecturers to kindle any spark of intellectual interest in the minds of students, he grants that most professors "know their stuff" but have little interest in "putting it across." The average don's attitude is that "the undergraduate must take him as he finds him and be thankful."

While Truscot is primarily criticizing practices in many Western countries, particularly in the U.S. and the U.K., it is a fact that Nigeria and Africa for that matter are no exceptions, as most of the current university practices in Africa were inherited from their colonial predecessors. The issue of methodology and orientation for teachers in African universities is even more acute, as pointed out in New Perspectives in African Education:

"The most valuable teacher an African university can appoint is the man who is not only a specialist in his field but also one who has acquired some depth of understanding of the cultural, social and economic problems of the African country where the university is established. The African graduate who has received all his professional training in the United Kingdom, the United States, Germany or U.S.S.R. is only a shade of skin better than his English or American counterpart in that he (the African) has to re-orient himself and his subject to his home environment. A good African academician trained in the metropolitan country may find himself at home in that foreign country's university. But if the same African graduate is to teach in his home university, he must be honest enough to himself, his country and his students to admit the fact that he cannot be an effective teacher until he has taken the necessary steps to re-educate himself in terms of the demands of his society and the possible adaptation of his area of specialization. In this sense, both the new African staff wholly trained abroad and the expatriate staff need a period of orientation."

The investment in higher education in Nigeria and elsewhere in Africa is so enormous and the need for manpower development so compelling that the training and education of the high-level manpower personnel should not be left to chance. Wastage must be reduced to an irreducible minimum and resources must be put to maximum use even at the university level.

I am happy to say that two years ago the University of Ile in Nigeria became the first university in West Africa, and probably in Africa, to launch an inten-
TRENDS: Fafunwa

sive one-term orientation course for new lecturers and professors. The Senate of the University approved the scheme and made it compulsory for all new staff and optional for old professors.

With due deference to this vital body of distinguished professors and administrators, there is no greater problem facing universities than the problem of teaching academics how to teach.

We are all witnessing a revolution in higher education. For centuries knowledge was conveyed by an active or passive professor to a definitely passive student group. Today things are changing. The students are becoming more active and the teacher is becoming more of an auxiliary, a catalyst or a mediator. There is now more than ever before a knowledge explosion and some aspects of knowledge become virtually obsolete even before they are acquired or transmitted. Our job is to help students develop a capacity for self-education or self-learning.

Textbook Prejudice

My second major concern has to do with prejudice in textbooks. The promotion of cultural pluralism among world teachers imposes certain obligations on all of us. We need to understand all the children we teach, whether black, white, yellow or pink with green spots on them; many teachers are too narrowly trained and are too ill-equipped to handle new and challenging situations, whether in terms of new technologies or human relations. Many teachers and volumes of text materials have not been of much help either.

Textbooks and other reading materials need to be written and re-written in a number of instances. As a result of historical accident, that is, the colonial past, many derogatory words found their way into textbooks and became part of the permanent vocabularies of the English-speaking world: tribe, native, savage, primitive, jungle, pagan or heathen, vernacular, bushman, backward, uncivilized, coloured race, negro, etc.

Many scholars have spared no pains to justify the appropriateness of these slogans. These words are commonly found in school textbooks, particularly in history, literature, geography, novels and readers. They also abound in learned journals, magazines, newspapers, radio and television. In archaeological, sociological and anthropological studies, many of these emotive words are employed on the pretext that they are used purely as objective, scholarly and scientific terms.

Whatever may be the scholars' justification for their use, the people to whom these labels are given reject the appellation, for they contend that the usage stereotypes and dehumanizes them. It is our contention, therefore, that if there is no ulterior motive behind the usage, sincere scholars must strive to work for an acceptable substitute instead of resolutely fighting to maintain the status quo.

To underscore the extent to which the usage of these words has damaged human relations and promoted racial or ethnic prejudice, we shall explain briefly how some of these words are defined in the Shorter Oxford English Dictionary.
a) Tribe: The word "tribe" is defined as "a group of persons forming a community and claiming descent from a common ancestor;" it is also defined as "a race of people; now applied especially to a primary aggregate of people in a primitive or barbarious condition under a headman or chief." It is interesting to note that the word tribe is principally used nowadays to describe African ethnic groups. It used to cover groups in Asia and other non-European communities, but since most of the Asian countries became independent between 1947 and 1954, the word gradually disappeared from the textbooks and journals; thanks to the UNESCO effort in this direction.

How an ethnic group with two or ten million people in East or West Africa can be described as a tribe and not the Irish, the Scot, the Welsh, the French or the English, still baffles the non-European.

To promote better understanding among all nations, it is absolutely essential that the word be eliminated from textbooks, journals and scholarly abstracts.

b) Native: The word "native" is defined as "one born in a place; left in a natural state, untouched by art, unadorned, simple; in modern usage, especially with connotation of non-European origin." In Western journals, magazines and textbooks for primary school children, authors outdo themselves in making the label stick. The word "native" in terms of current usage is synonymous with the word African.

c) Savage: The word "savage" is defined as "wild, horribly wild, uncultivated with implication of ferocity; uncivilised, existing in lowest stage of culture." One is tempted to ask: "Whose culture and whose civilisation" are we employing as a yardstick? It is our contention that only some animals will fit into this category and perhaps when animals learn to speak, they, too, may object to this description.

d) Primitive: The Oxford Dictionary defines the word as "simple, rude or rough like that of early times; old-fashioned." Again, this word is often used to stereotype some African art, culture, mores, religion or stage of development. By setting ourselves up as the sole arbiter of who is "primitive" and who is "civilised," and what is "good" and what is "bad," it means that we are playing God, and that role can only lead to greater misunderstanding and intolerance among the peoples and nations of the world.

e) Vernacular: The word "vernacular" means inter alia: language of "a home-born slave." It is currently in use in Africa today and seldom used in most of Asia and Europe. Yet the Luo, the Yoruba, the Luganda, the Ibo, the Ga, the Ewe, the Kikuyu or any other African language is no more a vernacular than the Irish, Welsh, Greek, English, Italian or the German languages. Africa has many languages but they do not number in the thousands as anthropologists claim.

There is a vicious tendency to count dialects and local variations as languages!

f) Pagan: The word "pagan" is defined as "one of a nation or community which does not worship the true God." How a human being can arrogate to himself the power to determine who and who does not worship the true God is still one of the mysteries of life and living.
Other words that need reconsideration in terms of textbook writing, journals, magazines, movies and television, are:

g) Jungle: “Land overgrown with underwood” is jungle in Africa, Asia, Latin America but is “everglade” in Florida and other places. Other emotive words include: uncivilised, backward, kaffir, bushman, etc.

To eradicate prejudice and promote national and international amity, teachers must be re-trained. The teacher, unlike any other professional, influences the nation’s youth and therefore half of the nation’s future. His education must have breadth and depth and must be relevant to the needs of his nation and the world. He should be able to help his students appreciate the contributions which each national group is making to the growth and development of the world community of nations. Herein lies the greatest challenge of our future.

I know that I am addressing the converted but it is my hope that ICET, WCOTP, and other international organizations will continue to work for the total liberation of the common man from all that hampers his well being physically, materially, and intellectually.

May I end with a justifiable misquotation:

Those who can, teach
Those who can't, cheat.

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manage an educational system staffed by volunteers from the community and making use of peer-teaching? How to train facilitators and animators and village-level workers and sanitarians and midwives and village chiefs to organize communities to identify and plan solutions to learning needs? How to get women teachers into rural schools where coeducation is hidden by religious as well as cultural sanctions?

These are problems well recognized by many, perhaps most of the developing countries. The Southeast Asian Ministerial Education Organization, for example, is mounting a project on innovative approaches to teacher education to address some of these problems. In Indonesia in the Philippines a project to test the system of the teacher as educational manager of community learning resources buttressed by such techniques as self-instruction, peer-teaching, communications media, and the like, is entering its third year; in Senegal the program of mid-level skills training for out-of-school youth, using skilled artisans as instructional cadre, is at the heart of the rural development program. In Guatemala, a village education program using combinations of technology and interpersonal means imposes new demands on the teacher.

Increasingly, educational leaders in the developing countries are coming to realize that the demands of their societies for better—and less expensive—solutions to learning problems are not bounded by the classroom, or by public expenditures at all. Perhaps even more significant, leaders in the fields of health, agriculture, industry and management have come to recognize that they need the knowledge of specialists in learning to achieve their goals.

I leave you then with something of a challenge. Do we really know enough about solving learning problems to provide ready solutions? Are our methods and underlying theory really too culture-bound, as some developing country scholars have insisted? Have we something to learn from traditional learning systems formed and refined over generations and centuries? Can we learn from each other?
Section Two: 
LIFELONG AND NON-FORMAL EDUCATION

Avveduto's paper on the broad concept of lifelong education as a response to new educational demands in changing societies, opens this section. It is followed by two papers dealing with lifelong education applied to specific levels: Tewari's on teacher education and Priselacs' on higher education. Next, Lee's paper examines the concept in terms of teachers' centers in the U.K. followed by Agumadu's, which describes a non-formal education program for Ivory Coast peasants. Finally Hoxeng's paper deals with non-formal education in developing countries and the policies of the U.S. Foreign Aid Program.

Lifelong Education for Teaching

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Introduction

It is clear that the traditional school system to which we are accustomed, the formative institution of which all of us are masters and victims at the same time, the schooling which goes from 5 to 24 years of age, loses every privilege within the framework (of lifelong education).

With new models, new educational systems have to be devised. Supporting structures, methodologies, educational technologies and even the traditional figures of teachers and students must be changed. The school will have to host, institutionally, people of different age levels and with manifold life experience. It will not certainly be sufficient to endow it with a small heritage of elementary knowledge or a more expert framework of professional skills in order to throw a bridge between the older and the younger generations. Thus our responsibilities in the formation process become more complex and more actively responsive to the mutations of the social aggregate. Those who have behind them a rich life experience and therefore more definite judgments, values and social attitudes, when going back to school, look for an occasion for verifying the validity and vitality of their cultural world in order to increase its span and assess its limits. We are no longer confronted with a virgin soil to till; rather with a field of robust plants to be trimmed and governed so that they may yield better and more abundant fruit. All this we must begin to do with the participation of the learner. If it will not be possible to count on it, the very notion of permanent education loses its significance. Involving the adult in the educa-
tional process implies the research of an agreement upon what, how, and how much to teach. Actually, this means that we must establish in the school rules which can satisfy the different demands of the parties involved, but, above all, those coming from people having new educational needs. The issue is that of drawing up a new "educational contract". This new relation will necessarily have to be based on a great and mutual respect for the parties in question; for this reason it must have a strong democratic character. It will be difficult, for example, to give lessons "ex cathedra" or to assign homework in the traditional sense.

New Subject Matter and Methods

The themes on which the new teaching will be centered must be up-to-date and difficult at the same time; they must be more specific and with a more immediate operational incidence. It can easily be predicted that, ultimately, the school will be confronted with many problems pending in today's society, above all economic and social, but also of a more general cultural and political interest. At the same time it will be impossible to neglect the demand for technical and professional training or re-training coming from those who wish to improve and bring up-to-date their professional skill.

We have thus to face questions of different kinds with the participation of the people who pose them. From what we have been saying so far, it is possible to envisage a certain number of constraints for the teacher, who will be obliged to have continuous recourse to technologies and methodologies until now, little known, or which will need to be invented altogether. Problems and topics of present relevance will have to be faced with the support of new and freshly-devised informative material. The use of audiovisual aids will perhaps be essential, as well as the use of well-stocked libraries. The collaboration and presence of experts will consequently be absolutely necessary.

The Redistribution of Knowledge

The boom of new knowledge that has characterized societies in the last quarter of our century has been so unexpected and explosive that a serious problem arises. Transferring this knowledge to the whole social body of a country has become a difficult task. So, for a number of reasons, a new gap has occurred between the young and the old generation: the former benefits by richer and more up-to-date knowledge in respect to the latter. There results a knowledge gap which can be faced only in the school. But this cannot be done unless adults return to school. From this point of view permanent education acts as a compensating force for the contrasts caused by the enormous growth of science and knowledge which is so typical of our time.

Gaps are not limited to the ones that have been mentioned. To give another example, there is the gap between the town and the country. In urban communities, educational and cultural opportunities are far better and more numerous than in country areas. The return to school would also modify this disparity.
Societies evolve very fast. The unprecedented impulse given by international commercial exchanges has brought about programmes meant to restructure the different economic fields and, above all, productive plants. As a consequence there has been a general recourse to innovation in economic and social infrastructures, and, as was inevitable, this has affected also the field of education.

In order to keep pace with such a high rate of change within human aggregates, the school has learned to move on with a rapidity and a degree of commitment never reached before. The phenomenon is still in full development; its course is so steady and constant that education is today given a primary role as an agent in the transformation of modern society.

Viewed in this light, permanent education plays a very important part: it favours an extensive redistribution of knowledge in view of the general progress of a society. In this light, the role of education appears as the right occasion for a collective reflection on problems of social development. The school becomes a place where citizens periodically return in order to improve and deepen in common the sum of experiences they have had in the social context and derive from all this ideas and rules of appropriate social behaviour.

In this way education becomes one of the most important social services and a very efficient agent of change. It must not be forgotten that a citizen and a social group are enabled to express "power", to the extent to which valid and modern educational instruments are made available to them. Education actually allows people to exercise power. It is like saying that the distribution of knowledge in an articulate society has many analogies with the distribution of income.

Technical Retraining

In the last ten years there has been strengthening of the tendency to involve the adult in educational activities. He has been offered different opportunities to go back to school. Two principal directions have mainly been followed in this sense in highly industrialized countries. One is that of favouring the continuation of studies at the post-secondary level as an impulse to a wider distribution of superior culture. The other has been that of supporting the world of production and services in its attempts at structural re-training through a large number of courses intended to give technical and professional qualification or re-qualification to workers, executives and managers, on all levels. There are countries where there is a high percentage of adult classes engaged in social and educational activities. For example, it is well-known that in Sweden, New Zealand, and Great Britain it is possible, starting from a given age-level, to attend post-secondary courses of instruction without particular diplomas. On the other hand, in France, a law dating back to 1971 enables 2% of workers in a given firm to go back to school in order to follow courses of professional qualification. Similar opportunities also exist in Belgium and the Federal Republic of Germany.

The belief that the technical retraining of an individual is connected with the
improvement of his cultural background rather than only with the enrichment of his specific technical instruction is now more and more gaining ground. All this acquires greater importance if we realize that these attempts have often been supported by political forces.

Adult education has thus made much progress; it has also offered educators in education such a great sum of experience that they have been stimulated to devise new educational systems which might be able, in themselves, to answer the new need for instruction. As often happens in many fields of human activity, the interest and imagination of theorists have been stimulated by new data offered by reality. Whatever the future development of permanent education might be, it is not difficult to foresee that professional retraining will play an outstanding role in the new system. The inspiring principle of recurrent education is that of alternating, in man's life, phases of work and phases of study. It is thought to be possible for an individual to avail himself of opportunities for studying even at the age of retirement and in leisure time. The reason that supports this hypothesis is the following: The rapid development of knowledge and its impact on the processes and organization of work oblige most people to bring their training up-to-date in the course of their existence.

**New Role of the Teacher**

If the picture so far outlined is correct and if the hypotheses made about its line of development are considered convincing, it is not difficult to imagine how the role of the teacher will be affected by them.

The most critical point is that of the relation between teacher and student. As age-levels go up in the school, the teacher will have to adjust himself and find the right ways and means for communicating with adult people. In certain ways, such a fact facilitates the educator's job. In fact, there is no doubt that the adult's greater experience determines a subtler and more mature level of language. It is easier for grown-ups to find a common ground. However, it must be kept in mind that the adult is conditioned by ingrown ways of thinking which may make him a more difficult student than the young adolescent. The latter's imagination and ductility are in fact often factors which make teaching quicker and more efficient. The dialogue between teacher and students must be more various and more connected with the present reality which, as everybody knows, is often controversial. Even topics and themes for discussion will have to be modified in a radical way. It may not even be possible for the teacher to establish them himself. He will have to plan them with the collaboration of his partners. And this changes the teaching style radically. All this will have to be faced with much patience, pragmatism and research. A richer store of information on the modern world and the phenomena occurring in it will be necessary. The teacher will thus become a collaborator and a "provoker" of his students in organising courses, research studies, and ideas centering on topics chosen by the students.

The new role of the teacher which emerges from all these considerations is not easy to define in detail, although it is actually very different from the tradi-
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...tional one. It is a role whose success depends on continuous inventive powers and coordination of ideas.

A "permanent student-role", "endless education", "permanent incompetence", which are the necessary foundations of a school operating for an indefinite time, would provide a justification for expelling from school the weakest classes ("You needn't worry: you may come back whenever you want to"). At the same time they would continually provide the means of making the human capital always ready to fit the changing needs of the capitalistic system.

Conclusions

It is now possible to draw some conclusions.

The partitions between the three classic ages of human life (that of traditional school education, the working age and the age of retirement) must be pulled down and the three phases must be interconnected. Figuratively, it would be like passing from an old church with three aisles to a new church having only one. Another partition must be pulled down, the one existing between social classes that produce culture and social classes that are mainly consumers of this culture. Permanent education must be above all a new communal way to produce culture.

Finally, in social relations, the contrast between dominant and emerging cultures must develop no longer in terms of abuse, a phenomenon that has so often characterized the dominance of the past over the present through the transmission of old values to new generations. It must develop, instead, under conditions of equality of old and new values. Permanent education will have to become a constant dialogue within the city walls. In this way it will prevent past history from preserving privileges and power positions and thus contrasting new cultures.

b) We cannot expect permanent education to spring up spontaneously. Like any other social phenomenon, this new educational model appears to be connected with the economic "constants" of society. It will be necessary to operate on these constants to modify the present educational system. It seems however that also purely economic reasons drive us towards a short-term enactment of a Permanent Education system.

c) A final consideration refers to the principal consequence the new system will have on teachers' work. Traditionally, we are used to thinking that the principal aim to be achieved in teachers' training is that of teaching them how to teach. In fact, the current opinion is that when a teacher knows how to teach, any other problem is solved. I believe that the new model of instruction I have proposed must overthrow this opinion. Continuous education in fact means above all to know how to learn; it will be necessary therefore to teach the teacher how to learn so that he can enable others to learn.

The demand for instruction has a peculiar character if compared with common needs: it does not diminish as it is satisfied, but the more it is satisfied, the more it increases. For this reason, knowing how to learn becomes the necessary condition for being men.
In the different forms so far outlined, permanent education represents for man—and, above all, those operating in the school—a great challenge, a pledge for the future. If, by its means, the democratic structure of human societies is strengthened, man will providentially rediscover an old principle: that his salvation is to be sought in and founded on associated life. But associated life must be pervaded with a better mutual respect and a more correct use of the available resources, above all of that resource which has a magical name and multidimensional meaning: science.
When we speak of integral education, we think of education as a whole, not as primary, secondary or higher. We think of the child as a whole and integral-ly related to society—its needs, urges and aspirations. We think of the total personality and not as split up into cognitive, affective and psychomotor, etc., and deal with institutions as a part of the social, economic and political process. We think of curriculum not as pieces of subjects put together but as an organic whole, different branches and units closely inter-related and merging into another. We do not think of education as formal or informal, institutional or non-institutional, in school or out of school. We do not think of education as for the rich or the poor, the gifted or the backward, but for each individual both full and complete himself and as part of society. We think of every child, every individual as an unfinished man ever in need of learning and education. Education, according to an integral concept, is a social process in the fullest and widest sense of the term.

The idea of integral education in recent years was forcefully emphasised by Rene Maheu, the Director General of the UNESCO, in one of his circular letters addressed to the Indian National Commission for Cooperation with UNESCO, when he said that education could no longer be regarded as a finite process, strictly sub-divided by levels; rather it must be seen as continuing, as a constantly renewed need of man's nature, in all kinds of societies. The idea is not new. In India Mahatma Gandhi emphasised that education begins with our birth and continues till the last breath. In ancient India this idea has been elucidated as follows: "a scholar continues to learn or study till the very end of his life."

It may be mentioned here that in the ancient system of education in India, and also in some other parts of the world, there were no grades, no classes, no primary, secondary or higher stages. The child entered the academy of ashram for complete education both theoretical and practical. As a matter of fact, theory and practice were not treated as separate. The student progressed at his own speed. The institution was supported by the community and did not invariably look for government support. The control concept of education was that "that learning is worthwhile which makes a man free." The students while in the ashram or outside were expected to serve the community according to their achievements and abilities throughout their life. In one of the Upani-shads, the teacher while bidding farewell to his students at the end of the course says: "Do not deviate from self-study". The teacher was multipurpose, the function of teaching was always plural... Continuing education has grown from the idea of adult education.

The idea of continuing education has been directly influenced by the accelerated development of adult education and has been elaborated within the context of adult education.
A similar observation has been made by the International Commission on the Development of Education (1971-1972) in their report.

"At the outset life-long education was scarcely more than a new term applied to a relatively old practice: adult education, not to say of evening classes. Then, progressively, the idea was applied to professional training, following which it came to cover multiple aspects of personality—intellectual, emotional, aesthetic, social and political within an integrated vision of educative society."

Integral education, as evident from the foregoing line, reflects the dynamic and comprehensive concept more effectively than the terms continuing education or life-long education and should be acceptable for further thinking, planning and implementation in regard to educational changes.

It may be stated here that the concept of integral education is much more dynamic and fundamental than that of continuing and life-long education. The concept of continuing education, at its best, emphasises not only continuity or the dimension of time alone but what is to be continued and how it is to be continued—these questions are more vital.

What has been said before gives ample indication in regard to reforms or radical changes to be made in the field of teacher education. Teacher education as it stands today has relevance to an out-of-date unrealistic and theoretical educational process. The whole educational scene, at least in the Asian countries, is beset with the problem of under-trained or ill-trained teachers.

When I start thinking of teacher education in terms of the concept of integral education, I feel all the more depressed because integral education requires much greater effort on the part of all concerned in order to effect a break from the tradition. At least we could take up some experimental work in this direction. I would suggest the following plan of action:

1. The school must take note of children and adults who remain out of school or college for one reason or the other. Teacher education programmes should change their pre-service courses accordingly and organise in-service courses to enable the existing teachers to impart formal and informal education to the out-of-school/college population in the locality. Without this the schools cannot function as the dynamic centres in the community.

2. The fallacy that a teacher alone teaches or educates must be done away with. Teacher education courses should prepare teachers to seek assistance and to utilise every device and every person who can be helpful in the total educational process of the school or college or outside it. The rigid rules prescribing constraints on the utilization of services of useful people in the locality should be made flexible or be done away with.

3. There may be need of new media but in developing countries expensive technological devices should be avoided. Often false economic advantages are claimed by the industries involved and they even get research done to support the use of their gadgets.

4. The term "lesson plan" should be discarded and also everything else that goes with it. The teacher must plan not a lesson, but teaching-learning activi-
ties and planning should be done accordingly. Herbatian steps must make room for better teaching practices based on new situations and new psychopedagogy.

5. Whatever be the plans for teaching, only one method still dominates in schools and colleges and let us agree with Skinner when he sarcastically says in Walden II that lectures as a means of imparting knowledge are now given only in a few out-of-date universities. It would be better to declare a moratorium on lecturing for some time.

6. It is a tragedy that teacher education has remained indifferent to one of the major problems, i.e. illiteracy in the developing countries. According to 1971 Census, 70% of the people in India are unable to read and write. A "total campaign" approach to solve the problem of illiteracy has been suggested. The USSR did solve the problem to a great extent with the help of young students. In spite of everything, the teacher education courses include almost nothing to prepare teachers for this stupendous task. Little research has been done on the subject.

It is suggested that there should be special courses in the teacher education system so that teachers can take part in the social reconstruction in an effective manner. These courses should not, however, be based on Western experiences but should be evolved on the basis of local needs and situations. The meaning of adult education in the West is not the same as it is in a developing country.

7. Teacher education programmes should be adequately fed by high quality research which is lacking at present.

8. Any change requires simultaneously the in-service education of teachers. This, however, requires the following safeguards:

   a) In-service courses should be organised only when those who impart knowledge have the necessary competence to do so.
   b) New practices and ideas have been scientifically tested in the situations in which they are going to be put into practice.
   c) Incentives should be provided to the teachers undergoing the in-service course.
   d) In-service education for teacher educators should also be organized.

The Indian Education Commission (1964) made two important recommendations, one to remove isolation between schools, colleges and universities and the other to establish comprehensive schools of education wherein the artificial barriers between the training of teachers at various stages should be eliminated. In spite of these recommendations, nothing has been done so far and the training of teachers at various stages is carried on separately and the gap between the universities and schools/colleges and communities is becoming wider and wider.

Though in a sense teacher education has adjectival functions, i.e. it serves the needs of existing schools, a time has come when teacher education institutions should also make preparations to set the pace of change. Some of them have facilities to try innovations, to carry out sustained research, and they can create a body of teachers who will introduce new practices in the schools to
which they go. They can even establish their own institution to try out new ideas.

References

Lifelong Learning and Higher Education

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Great pressure is being applied to the education function at all levels in an effort to make it more responsive to societal needs. The problem however, is that these needs are so diversified that those in higher education are finding it no easy task to address the problem.

Society is increasingly demanding free access for all of its citizens into the various forms of higher education. The result is that many students, once not able to attend institutions of higher education, are now able to enroll in any number of programs. The implications for a system that has not been molded to address the needs or motivations of this type of student are numerous. Allowing students into schools via an open-door policy is not enough as many in the higher education family have found out. Without change of approach, content, and attitude, the new student is finding a great deal of difficulty in functioning. Patricia Cross in her book, Beyond the Open Door, writes that the simple extension of traditional education to a broader segment of the population is a woefully inadequate and timid step into the equalitarian age. Tinkering with the structures and forms of college programs rather than changing the content and methods will not solve our problems.

Another facet of the broadened enrollment is the trend toward the admission of older students. Many are stating that the future of higher education will involve instruction of a student body over 35 years of age. The implications of this revelation are staggering to the imagination.

The Future Committee of the National University Extension Association addressed itself to a number of approaches highlighting this trend. In their report of 1972, they suggest the following:

1. Make lifelong learning a reality by developing educational sequences and educational mileposts—curricula rather than isolated programs—that involve the learner on a continuing basis and enhance his competence.

2. Go where the action is—physically into the store front or the church basement, electronically into the living room or bathroom. Extended and lifelong learning requires a vast system of student services, especially student advising based on student needs rather than on filling classrooms. It requires much more imagination and strenuous effort to adopt both content and method to the learner.

3. The student of the future will be anyone engaged in learning, in any location, for any portion of his time as long as his activity results in some measurable accomplishment.
4. Academic standards in the future will become less concerned with prescribed routines and more concerned with the assessment of the product.¹

In a recent Stockholm meeting, ministers from 21 nations affirmed a commitment to lifelong learning by agreeing to a seven point program of cooperation. They adopted the following basic position:

- Post-secondary education should be organized in sufficiently flexible and integrated ways to suit the needs of all persons, with different needs at different times in their lives.
- Lifelong learning implies greatly increased ties between education and employment and rapid technological change necessitating more vocational retraining.
- More governmental coordination of education, social welfare, and employment policies.
- A coherent system to achieve a balanced financing of youth education on one hand and adult education on the other.²

Hesburgh, Miller, and Wharton in their writing further support and simplify this lifelong learning process by offering the following suggestions:

- Institutions must move to universal access to higher education for all adults.
- A combining of resources and collaboration of agencies involved in the process of continuing education.
- Public policies must be developed to encourage the systematic integration of learning opportunities with the needs of people at different stages of life.
- Public policy changes to promote lifelong learning through released time from employment, tax deductions or tax credits, and retraining programs that promise new careers.
- An inculcation of a spirit of intellectual curiosity leading to independent and purposeful learning.
- Alterations in the attitude of teachers and students as well as changes in the basic format of courses must be accomplished.
- Certification and licensure should be based on an objective demonstration of competency.³

Although the approaches to the challenge of lifelong learning or recurrent education are being viewed differently in the United States and Europe, one question remains common to both. Can traditional education systems resolve the problems and meet the challenge of what today's, and more importantly tomorrow's, society bring to and demand of higher education institutions?
LIFELONG: *P-*seduc

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3 Ibid., pn. 1-32.
Teachers' Centres and Lifelong Education

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The Rapid Growth of Centres

One of the most remarkable developments in education in the United Kingdom in the last decade has been the growth of teachers' centres. In the first book published on the subject of teachers' centres Robert Thornberry (1973) claims the idea of these centres to be a 'British first' and he finds it difficult to understand why these centres "have not dotted the educational landscape for decades." There were only a handful of these centres in 1960; in 1969 there were 270, in 1970 the schools Council Annual Report put the figure at 466; by 1972 the total had reached 617 and there are now thought to be nearly 700 such centres. Although this rapid growth has taken place only within the last ten years the idea is not a new one. It was first put forward some 30 years ago by the Board of Education (1944) McNair Report.

The Variety of Centres

The centres vary enormously in almost every respect. They are housed in old country houses, redundant school buildings, parts of existing schools and, in some cases, in colleges of education. Some centres are concerned with particular aspects of the curriculum such as mathematics, science or English, while others are multi-purpose and cover a wide range of curriculum activities. Some are little more than social centres. The facilities provided vary from the primitive to the lavish. Some centres have a full-time warden, an assistant warden, a range of warden or secretary. The complexity of the situation makes it difficult for me to make general assertions but there is no doubt that those who have been involved in the development of the teachers centres are most enthusiastic about their work and their potential.

The Role of Teachers' Centres as Providers of In-Service Education

Within the teachers' centres the role of the teacher has changed: initially the teacher was a consumer of in-service education which was produced for him by outside agencies. Later the individual teacher became the professional who decided for himself what was needed in the way of in-service education, and became involved in providing that education for himself and his peers.

It is usually agreed that the in-service educational needs of the teacher are related to his personal intellectual and professional needs, and to the needs of the educational system and its schools. Because the development of teachers' centres has been so closely linked with the various curriculum development exercises it might be thought that the centres' role in the future should be developed to meet the needs of the teachers in relation to the educational system and
the schools. They might play some part in answering the teacher's professional problems, while work of a purely academic nature could be left to the universities and colleges. But Bob Gough (1975) has expressed the hope that when in-service educational activities develop these activities "will be seen as relevant enough to be directly useful to the teacher in the classroom, and at the same time rigorous enough to be worthy of validation in terms of 'credits' counting towards a diploma or a degree." The development of the Open University Study Centres in connection with their degrees illustrates how this might be achieved.

The current activities of the teachers' centres cover a wide range: the most important of these at the present time is concerned with the special needs of the curriculum development exercises where materials are being adapted for local use. The reverse process also takes place, as with the mathematics for the Majority Continuation Project where groups meet in local teachers' centres to write the material for the project. Some centres have concerned themselves with wider local needs such as meeting places for local branches of teachers' associations and primary and secondary teachers.

The Teachers' Centre and Lifelong Education

The teachers' centre is essentially a local institution catering for the needs of teachers working for a particular L.E.A. (Local Education Authority). It is this fact which gives it potential in developing a role within the programmes now being considered by the recurrent education and the lifelong education movements. Up to this point this paper has dealt with matters of fact; what now follows is speculation as to how this 'British invention', the teachers' centre, might be used not only for the lifelong education of teachers, but also for the educational benefit of the whole community, a distinction I believe without any real substance. The reforms in teacher education now being planned in my country seek to end the isolation of this type of education from higher and further education. If this is accepted as sound policy it is difficult to see why the in-service education of teachers should be isolated from the lifelong and recurrent education of the rest of the community. The teachers' centres have collected together substantial resources of books, materials and aids, all of which might well be more widely used. The emerging professional centres are to have special functions in relation to the induction and in-service education of new teachers, and these centres will have access to extensive resources, especially where they are located at colleges of education. It seems prudent to use these resources in the education of a much wider cross-section of the community.
Rural Non-Formal Education in the Ivory Coast: The Experience of the African Institute for Economic and Social Development

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Introduction

The Training Centre that is called INADES was founded in 1962 and conducts development programmes geared as a matter of preference towards the rural world. The department of this institute which conducts these programmes became autonomous some years ago and is called INADES-formation. It is some aspects of INADES-formation experience that we are going to describe in this paper.

INADES was founded by a group of Jesuit Fathers but INADES-formation is an international association made up mainly of its senior staff. INADES-formation works in most Francophone countries south of the Sahara and has, for a couple of years been extending to some Anglophone countries.

INADES-formation tries to help in the development of the rural world by a series of programmes.

1. Agriculture courses that are given to peasants and extension workers by correspondence. The programme starts with general agriculture, goes to specialized crops and then to socio-economic subjects like rural economics, extension, farm management, village organization, etc.

2. A programme on animation that helps female assistants organize meetings of village women. This programme is now being completely revised to include men too.

3. A course on initiation into development intended for personnel with responsibilities in the different sectors of development especially rural development. The training is socio-economic and takes an overall view of development problems: economic, political, social, family, etc.

4. "AGRIPROMO", a trimestral bulletin that provides pedagogic supervision of courses—it is only of help to all those who wish to help in transforming the rural world.

5. Seminars, necessary to bring peasants together to share experience.

The programmes of INADES-formation aim at adults first as we will explain later. The most important part of our programmes is the agriculture course with its seminars and AGRIPROMO. This means that the training of peasants is of paramount importance to us. Why?

Why Must the Peasant be Trained?

This question is important because until recently tradition and experience were transferred from parents to children and this transfer was enough to make children good subsistence farmers.
Nowadays the peasant is confronted by changes of all kinds: he must participate in an exchange economy, he needs money to satisfy his wants and must therefore produce more food than he needs. The introduction of new agricultural techniques and crops is yet another change. One other problem is that the peasant is no longer a member of this or that village but he has become a citizen of a country with its administration and services and its development plan.

The new situation in which the peasant finds himself calls in question his own habits, his work methods and his social organization. Tradition and simple experience are no longer sufficient to enable him to adapt himself to the new situation. He then has the following possibilities:

- he can refuse or ignore the changes but at the risk of remaining ignored and scorned;
- he can accept passively the new situation but he condemns himself to being an executant; or,
- he can enter actively into the new situation but then he must understand its mechanisms, constraints and possibilities; he must be trained to be able to make decisions and make choices.

**The Training that the Peasant Requires**

a) A professional and technical training.

The learning of some agricultural techniques does not carry the peasant very far. He must be given a scientific explanation that enables him to discover physical causes of phenomena. If he understands the causes, he can then act on them. For example, if we content ourselves with only showing the peasant how to apply fertilizer, he runs the risk of attributing magic powers to fertilizer that he considers as "juju". It becomes necessary to explain to him why and how fertilizer acts on the development of plants.

For this explanation to succeed we must have confidence in the intelligence of the farmer who will apply much more willingly what he learns if he understands it profoundly. If he understands it profoundly, he can apply it to other situations.

This professional and technical training takes time and must be adapted to the needs and ability of the villagers. Even then the mere professional and technical training is not enough.

b) General training.

The aim of this general training is to help the peasant to place himself in the new society.

The training relates to economics because it enables the farmer to calculate his yields, to keep accounts and to manage his agricultural enterprise in a rational manner. The farmer also has to know about prices, the wheels of international trade and the economic orientations of his country.

In addition he has to be informed on the role of the administration and its multiple services and what can be expected of them. In this way the fear and
distrust that villagers have for government agents can disappear.

Elements of history and geography will be useful in understanding the economic and social relations that a country has with the rest of the world. Other elements can come into this general training: literacy, for instance, will make the farmer feel at ease in a society where written things, "papers", have become the order of the day.

Lastly, we must not forget health problems. This calls for a training which can go up to the explanation of the human body in order to understand the causes of diseases and the precautions to take to prevent them, or failing to do so, to cure them.

This general training may look ambitious. This calls for two remarks:

1. We can explain these notions in a very simple manner but this requires a well-adapted pedagogy.
2. If we know the rural milieu well we can stimulate the interest of peasants to know more and their desire to understand in order to participate actively in the affairs of the country.

c) Responsibility training.

If we want villagers to take their own future into their own hands and to invent the forms instead of expecting everything from the government, they must be allowed to take initiatives and assume responsibilities. In brief, they must organize themselves.

This calls for training. But this is training that comes from experience. It requires the presence of a trainer who will give necessary information at the right time. He must be a trainer who, from past successes, failures and difficulties, helps the local leaders and participants to search for the causes of what is happening, the possible solutions and he also helps to launch initiatives.

How does INADES Reach the Rural Adults?

If we really believe that the training of peasants is a means of promoting and transforming the village society, we must give priority to the training of adults (men and women) among these peasants. In the first place they actually have responsibility over the village. Secondly, it is they who have the weight and authority necessary for bringing about the process of transformation to the village. We do not mean that the youth should not be trained but contrary to what many think, too much hope should not be placed on them until they have decided to make a career in the village.

We, in INADES-formation, reach the peasants in one of two ways:

a) directly by our agriculture courses followed by seminars, and the formation of groups looked after by an animateur or any other volunteer, and

b) indirectly through intermediaries like extension workers.

It seems that those who invited us to this assembly are more interested in this indirect method.

The training we give these extension workers is, in the first place, the training that could be given the peasants directly (professional and technical training, general, training, etc.). There is a difference, however, in that the extension worker has learned elsewhere at least part of what he is now being taught.
LIFELONG: Agumadu

Many extension workers that we have interviewed tell us the INADES-formation agriculture course is a good synthesis of what they have learned earlier, that the theoretical part of the programme compliments the merely practical training they have received. They also insist that they get from the programme a vocabulary which makes them feel at ease in front of peasants.

We add something different to the training given to extension workers. We train them on how to transmit knowledge to peasants, on the pedagogy of action, and how to make learning animated.

We achieve this special training of extension workers in three ways:

1. Courses on extension and animation.
2. Seminars that treat subjects like, “how to adapt oneself to the rural milieu”, “stages of transmission”.
3. The trimestral review “AGRIPROMO” prepared to give the extension workers news of what other extension workers are doing elsewhere. He compares this with his situation and this helps him to improve on what he is doing.

What the Extension Workers Must Bear in Mind

1. The first thing we insist on in our training programme for the extension worker is that the change he wants to bring to the rural world can be of two kinds and that, of the two, one is better and recommended.

First, the change can be imposed. This happens when villagers themselves have not wished nor chosen the new way of doing things. This imposition can be by general usage: “everybody is doing this, so you must do it”. It can be by the government: laws force people to adopt new ways.

Secondly, the change can be voluntary. In this ease the villagers accept a change because they find it good and they want it. They can act alone or utilize the public services.

Of the two ways, the second is of course the better. When a man acts out of fear or by force, he does not know what he is doing or where he is going. He belittles himself. When something is forced on him, he does not like that thing. That is why forced labour is neither good nor durable. On the contrary, if he acts voluntarily, the work is more interesting.

The extension worker must get this clear because he may have the power to impose things on the villagers. In many cases it is faster for him to get things done by imposing them on the people than by making the villagers want these things. He has to understand that in the long run it is better to take the longer course of making villagers accept a change voluntarily.

2. The extension worker influences the rural world but must allow the rural world to influence him.

The extension worker is a stranger to the village where he is working. He must realize that he has to do all in his power to be accepted by the members of the village.

When he talks to Mr. A. of the village, he is not talking to one isolated man
because this Mr. A. has behind him the whole village with its organization.

The extension worker has to see and recognize these village forces: land, animals, etc., which constitute the material interest for the village. There are collective interests too, for instance the solidarity of the villagers for their common defense. Finally, the village has old habits and rules, has an organization, etc.

The villager likes to feel that he is considered and respected. To respect him we must try to understand him and help him understand the new changes.

Extension is a way of influencing farmers without ceasing to respect them. If, therefore, the extension worker does not take the character of the farmer into consideration, if he does not know his habits and all the constraints of the rural life, he will not succeed in his work.

**What Pedagogy Do We Adopt in Training of Village Adults?**

a) A sensitization beforehand.

To be efficient the training must be wanted, desired and prepared. Going to a village and carrying out a health programme without prior preparation is lost labour. Villagers must first be sensitized and this sensitization is better done if villagers are made to think from concrete occasions—what is the health expenditure in the overall family budget? What is the health situation of the village? What are the advantages the village could draw from improved sanitary conditions? If this sensitization succeeds, the villagers themselves will start a health programme as they solve other organizational problems.

b) An active pedagogy.

Because adults have much experience and knowledge, the trainer must use active pedagogy. Papers and lectures the peasants will listen to half-heartedly.

c) A polyvalent trainer.

Given the various subjects that the trainer must touch—agriculture, health, economics, civics—he is bound to be polyvalent.

This polyvalence may be frightening at first sight because, we can argue, nobody can be a specialist in all subjects. This is very correct. It is even important to add here that despite his polyvalence the trainer is obliged from time to time to call in a specialist to give more competent and detailed information on this or that subject.

It would, however, be a pity if the training of villagers consisted of interventions by different specialists who would treat a number of subjects, one after the other, without any relationship between them and without linking these with the motivations of the villagers.

The role of the trainer is not to lock himself up in one specialty but to always bear in mind all the dimensions of the training he is supposed to give. He must help the peasants to think over all the problems that they have, to discover the possible solutions; he must be capable of perceiving the moment when the re-
search work has sufficiently advanced so that the group can benefit from the intervention of a specialist.

All this requires of the trainer a profound knowledge of the rural milieu and a simplicity of relationship with the villagers because this will create a climate of confidence between them and him. Most important is, of course, that the trainer must have confidence in the intelligence of the peasants, in their evolution and initiative possibilities and, above all, in their ability to take the future of the village into their hands.

Some Examples of the Training of Extension Workers in the Ivory Coast

a) CIDT: Compagnie Ivoirienne de Developpement des Fibres Textiles

INADES-formation has a contract with this organization to train 200 of its extension agents each year. The aim of the CIDT is to have more polyvalent agents. Formerly the agents were only trained in the cultivation of cotton and that was the only thing about which they could talk to peasants. The CIDT has realized that, if it is to contribute much to rural development, it has got to be less sectorial and this it can do by interesting its agents in the overall agricultural problems of the peasants of a region.

b) SODERIZ: Societe de Developpement du Riz

SODERIZ, like the CIDT for cotton, has realized that it not only does not suffice to see to the cultivation of rice but that also there are many other things that must be done if the operation is to succeed. One of these is getting peasants organized into groups: production groups, commercialization groups, purchase groups (purchase of agricultural equipment).

One may wonder why there is such emphasis on groups by a government agency. The reason is simple: so many things are more easily done in the rural world if they are built on the solidarity of villagers.

The training given to the SODERIZ agents is the special part of the agriculture course that deals with groups, rural economies, agricultural management and extension.

Then there are seminars. One such seminar was on the problem of group formation. Participants examined some traditional groups and modern groups, analyzed their difficulties, and tried to discover what a group ought to be (it has to be the work of peasants and their responsibility without imposition).

There was even a seminar on the training of agents who were specifically animateurs.

c) AVB: Autorite pour l’Amenagement de la Valee du Bandama

AVB is a regional organization that was set up to resettle people who were displaced because of the construction of an hydro-electric dam at Kossou in the central region of the Ivory Coast. AVB has to deal with all the problems of these people who are moved to new areas: agriculture, habitat, health, etc. It therefore needs grass-roots development workers to spread out to all the people and in different sectors.

It calls on INADES-formation for the training of these development workers.
Many more government agencies contract with us for the training of their agents. Elsewhere in Africa, the situation is almost the same: we have peasants, with whom we work directly; we have extension workers, animateurs, etc.

There is a new category of people that has been added to the usual list. In Upper Volta, the government has been making efforts to ruralize primary schools. It has therefore asked us to give agricultural training to the teachers of those schools. The project is new so that it is still too early to talk of its impact.

**Conclusion**

Even though in many African countries where we work, the Agricultural Services have not placed in position, in a systematic manner, the training of adult peasants, we think we are doing a good job in not only training these adults but in training some among them to become trainers. We also think that no real development can take place in Africa if peasants are not involved in it. Whoever has the responsibility of associating with them must realize that he is dealing with people who have intelligence, who have a right to receive explanations, and who have their own problems and difficulties. If he wants these people to understand him, he must first understand them. This is the first basic principle required of a trainer.
Deprofessionalization: A Necessary Trend in Lifelong Education for the Third World?

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Introduction
A substantial number of projects, in attempting to address the educational needs of the poor majority in third world countries, are attempting to make maximum use of unpaid personnel from the populations being served. Considerable evidence indicates that such persons are more cost-effective than professionals or paraprofessionals for a variety of educational tasks. They cost less, obviously, and many project administrators are convinced that they do a better job than professionals.

The Lifelong Education Idea

Learning to Be, a 1972 publication of UNESCO’s International Commission on the Development of Education (and remarkably more readable than the average commission report), stated that it “laid stress above all on two fundamental ideas: lifelong education and the learning society.” The lifelong education idea was variously described in the report. Some examples: “(Education) all through life as well as during childhood and adolescence;” or, “Every citizen should have the means of learning, training and cultivating himself available to him;” or, “Educational structures must be remodeled to extend widely the field of choice and enable people to follow lifelong educational patterns.”

My colleague Bernard Wilder has developed a means of clarifying such concepts or labels as “lifelong,” “basic,” “nonformal,” and the myriad other monickers which are applied to education. His premise is that each of these labels describes only one or two factors of the eight or so descriptors which are necessary to completely describe a learning activity. Wilder’s suggested eight descriptors are: client or learner group, locus of control, location of learning activity or geographic dispersion, content to be learned, objective of the learning, pedagogical approach, time frame in which learning takes place and in relation to when it will be used and administration and sponsorship. The reader will quickly see that the use of these descriptors would make clear why it is difficult to compare educational approaches using only conventional labels. “Nonformal” refers to the administrative arrangement, “out-of-school” to the location, “lifelong” to the time frame, “adult” to the client group, and so on.

Applying Wilder’s descriptors to the lifelong education construct, we can take from Learning to Be its authors’ opinion as to what the arrangement should be:
LIFELONG: Hoxeng

To Wilder's list of descriptors I would add number nine, Cost/cost sharing. The fact that an approach must be affordable in order to have any possibility of being effective seems obvious, but is too often ignored or severely neglected by planners. Cost sharing (national/regional/community/individual) is all too frequently omitted from planners' schemes.

Resources for Lifelong Education

Philip Coombs and Manzoor Ahmed have outlined in general terms what they see as the facts of educational resource allocation in the third world. Two of their statements follow:

1) Formal education receives the lion's share of public educational outlays. (Adult education programs typically are allocated less than 1% of the total budget. The largest portion we know of for nonformal education is Ethiopia's plan to allocate 12% to NFE by 1985.)

2) Urban areas get a disproportionate share of both formal and nonformal education. (The inventory of NFE in Colombia found that of 432 NFE programs they examined, 253 were located in Department Capitals, and only 31 were to be found in the smallest communities.)

Coombs and Ahmed go on to other elements of what they term the problem of distorted allocation of resources. But the two facts cited above are sufficient to delineate the problem AID is attempting to address under its Congressional Mandate, i.e., rural adult populations in the third world have had little access to formal education, and currently have extremely limited possibilities of gaining admission to organized learning opportunities of any kind. Furthermore, even when they do have access, programs designed for rural illiterate adults are often dishearteningly ineffective. Ahmed cites the example of a North African country's adult literacy program where the cost per enrollee was $2.80. However, only 2% completed the three-year course, and only 70% of the graduates were literate, so the cost per literate graduate came to about $2,300!

In reaction to the above example, one should not blindly recommend improved learning conditions to increase effectiveness. World Bank estimates that improvements (traditionally recommended by educators: smaller class sizes, better learning aids, more highly trained teachers—would increase...
annual recurrent costs by 75%.” Ahmed states the need to change education’s traditional “production function” to reverse the trend of ever-rising costs. This paper considers a number of concrete examples of projects which attempt to achieve this goal.

Lifelong Education: What is Being Done Now?

Without much reflection one can conclude that the lifelong education “solution” for a given country, and indeed for subgroups within a country, is likely to resist any Procrustean formula. The variety of the following examples supports that view:

GREAT BRITAIN: Learning Resources Centers

In an urbanized country with considerable resources, one might consider emulating what is currently being done in Britain. In a number of cities, Learning Resources Centers have been constructed to make efficient use of school buildings and to increase access to learning opportunities for persons who traditionally have seen little or no organized learning activity since their teens. One of the best examples is the Abraham Moss Community Center in Manchester, England. Slum buildings were cleared away to make available a 32-acre space in an otherwise densely populated area of the city. Buildings were constructed on some eight of those acres, and the rest were used for parks and playing fields. The Center includes a junior high school, a comprehensive secondary school, a college of further education, an adult education program, a sports center, a nursery school babysitting service, a performing arts center, music and practice rooms, a youth wing, an aged and handicapped people’s club, a residential wing, a three-story library or learning resources center, seven restaurants and a pub. The idea seems to be excellent for Manchester’s needs, with a large foreign population and a number of illiterates who are persuaded by the informal ambiente of the Center to come in and learn the urban survival skills which will permit them to improve their quality of life. For poorer countries, however, and for sparsely populated rural areas, other solutions must be sought.

ASIA: Project Impact

This total learning system approach has been tried in several countries of south Asia, and shows promise of increasing teacher effectiveness 50% to 100%, and/or decreasing costs by half or better.

This “teacher stretching” approach applies results of recent educational research to make full use of non-teacher resources (such as parents, community members and older students) to aid in student learning. A number of non-teacher learning methods have been adapted from a variety of sources. These include self-instruction, peer-group learning, ungraded progression, skill training by volunteers in the community, and programmed teaching and learning by older students.

The above components are organized into a system for efficient management. One teacher supervises or “manages” the learning of up to 200 primary students. The curriculum is modularized, each child is self-paced through a system of contracts and incentives. Community volunteers and older students act as unpaid teacher aides. The name, Instructional Management by Parents,
LIFELONG: Hareng

Community and Teachers, indicates the project's interest in reaching beyond
the traditional role of primary schooling to affect the community at large. Re-
sults to date seem promising, but initial evaluation results from Indonesia and
the Philippines will not be complete until 1978.

ETHIOPIA: Mekane Yesus Community Education Program

The Mekane Yesus Lutheran Church of Ethiopia has organized an adult
education program with some unique characteristics which illustrate the thesis
of this paper. When the national church began this activity, the organizers
wanted to be sure it would not be just another church program, but would in-
volve the entire community, regardless of religious affiliation. They wanted to
be sure that the organization would be decentralized to maximize local contri-
butions and to make it possible to reach a large number of people with limited
central resources.

Project staff made contact with villages and offered to help set up an educa-
tion program. The village was obliged, if interested, to set up a responsible
group as the program council. Not more than half of the council could be from
the Mekane Yesus church. The village provided a meeting place—a house,
church, village center, or maybe just a tree under which people could meet.
The villagers identified whom they wanted as teacher; their candidates
usually
were school dropouts (which is not surprising, since completing primary
school is highly correlated with leaving the village to seek employment in the
city).

Mekane Yesus agreed to provide about $65 per year to support the activity,
and to train the teacher (regardless of the teacher's previous education; no en-
trance requirements were imposed). In addition, Mekane Yesus provided
books and technical supervision/follow-up.

The village had to pay all expenses above the centrally-provided $65.
Central funding thus amounted to about a quarter to a third of the total
money spent on the program. If the villagers didn't like the teacher, they could
fire him, since he worked for them and not for the Mekane Yesus organiza-
tion. They found the best teachers were those with minimal formal education,
and the very best were those who had recently finished the literacy course
themselves. Sociologists call this strong identification with the client group
"homophily," and generally refer to it as a rare quality in change agents. Its
development requires sophisticated selection and training, and costs a good
deal more than supporting a traditional teacher or change agent.

In fact, the Mekane Yesus program turned out literates at approximately
5% to 10% the cost of other literacy programs in the country which were using
"qualified" teachers. Total training given the community teachers was two to
three weeks at the outset, followed by frequent visits to assist on the job. The
field supervisor was also a village teacher who had more experience (not more
formal education), and thus knew the problems the village teacher was likely
facing.

This training pattern matches the approach used in a nonformal education
program with which I was associated in Ecuador. There, communities chose
"facilitators" who received short-term initial training. These unschooled
LIFELONG: Hoxeng

members of the community were perceived by Ministry of Education personnel working with the project as more effective than traditional adult education teachers who were attempting to do the same task.

PERU: Alfabetizacion Integral

This is a participatory literacy program sponsored by the government of Peru, which aims to tie literacy to personal needs and the social situation of its students. Alfonso Lizarzaburu, writing in a recent issue of Prospects (Vol. 1, 1976), reports, "Literacy teachers of modest social origins, [but] with experience of working with the masses, obtained better results than did university students or school teachers in general." Lizarzaburu states that this difference can be laid to the ability of the "less qualified" teachers to identify with the local populace. That advantage was sufficient to overcome their initial relative lack of information and knowledge. Further, their homophily helped them overcome people's distrust of programs initiated from the outside.

Even with the superior performance of the less qualified teachers, however, the program faces a political problem in that school teachers have protested the use of people with no diplomas, who are thus by definition incompetent. The school teachers' attitude is of course conditioned by the fact that a great many of their number are unemployed in Peru today.

Another project in Peru has taken a similar tack. On the shore of Lake Titicaca, in the town of Puno, an "early intervention" program works with some 3,000 students in more than 150 locations, the vast majority of whom are Quechua or Aymara monolinguals from the country's poorest population. Instead of using professional teachers, local volunteers receive training under the program and are responsible for its operation. That stratagem was used to lower costs and increase community involvement. A complication has arisen in that the volunteers' fairly close relationship with the Ministry of Education has made them desirous of being incorporated within the formal teaching profession—but the project's financial and (possibly) social feasibility is dependent on the continuing availability of volunteers.

Implication: for Planning Lifelong Education

Lizarzaburu concluded with respect to the ALFIN program that there was a need to "... devise a policy and strategy designed to attract, train and motivate unpaid personnel in rural areas."

Project Impact stresses the fact that their community aides are definitely not paid, because when they receive pay—however little—they shortly become a kind of paraprofessional, expecting to be paid more and more. Their reasoning is not unconvincing: as they gain in experience, they do more and more of what a professional teacher did or would do. Ethiopia's Mekane Yesus may have solved that problem in part by not making the local teacher an employee of the organization, but rather an agent of his peers, compensated for his efforts, but not subordinate except to the council or community at large.

The Colombia inventory mentioned earlier found that using unpaid volunteers is not an isolated phenomenon. In the 432 programs they examined, 53% of the staff people were volunteers. It would appear that the volunteer phe-
nomenon has been overlooked by planners, who often have the tacit attitude that no one will work without pay.

In Project Impact, where use of volunteers is reducing the number of teachers needed to operate the same number of schools, the Ministry of Education has accommodated to the situation by producing a "sharply reduced" number of new teachers in the teacher training colleges, and by not replacing teachers who resign or retire. The institutions themselves have gone much more than before into in-service training, upgrading the remaining teachers through a series of three-month courses. Colleges no longer needed for teacher training have been changed into "centers of excellence" which produce and test materials, work on improvement of curriculum, and have even branched out into technical and agricultural education.

Nonformal Education in AID's Human Resource Development Effort

In the Education and Human Resources office of AID's Technical Assistance Bureau, we're putting together a nonformal education approach which attempts to build on the positive characteristics of nonformal education (more about those characteristics later). Our goal is to develop a national NFE model (using the term as flexibly as possible) for testing in interested LDCs, beginning in Fiscal Year 1978. The model is based on grass roots participation, beginning with learner-determined "curriculum" participation designed for community organizations, and with other new approaches: to "change agent" recruitment and training, to evaluation design, to mass communications arrangements, and finally, to the national NFE organizational model itself—which we see as being of necessity non-bureaucratic.

The compelling reason for developing a non-bureaucratic approach to NFE in situations of severely limited resources can be illustrated by reference to the situation in Colombia. After its recent inventory of NFE programs, CEDEN estimated that there are some 10,000 NFE projects going on there. About 65% of them are financed by extragovernmental sources, and 53% of their staff people are volunteers—showing a huge resource input completely apart from government revenues and expenditures. It seems to us that such variegated sources of support must be preserved, protected, and strengthened where necessary. In fact, that variety of funding sources was one of the original causes of interest in NFE. In the literature, NFE is characterized as enjoying varied sponsorship, as using existing facilities and buildings instead of requiring large fixed-cost investment, as satisfying immediate learning needs, as being able to disappear once its time is past, and so on. Our conclusion from the above is that all these characteristics or benefits can only be realized as long as the practitioners of NFE do not become employees of a new NFE bureaucracy, and that the budgets and their financial sources retain their current independent character.

The challenge, then, is to respond to the expressed needs of such programs for assistance that will improve their effectiveness, without at the same time attempting to "domesticate" or "homogenize" them in a single organizational structure.
What are the needs felt by NFE programs? The Colombia CEDEN study found the following:

a) They are interested in media and materials, admitting that what they are using now is far from optimal.
b) They need training to upgrade their staff's knowledge and skills.
c) They are ignorant of the existence of other programs. (The survey found that the average project manager knew of only one other NFE program!)
d) They are underfinanced, although they make good use of what they have. (In Colombia, the average project has a budget of about $25,000, and serves some 1,200 participants.)

Given the above, and combining those facts with what we have observed in other situations such as those described in this paper, we have decided to provide assistance for the development of a model NFE Central Support Mechanism, made up of what might be called Technical Support Units—indeed, this is the name given to such operations in a recently approved AID project in Upper Volta. These Technical Support Units may be set up from scratch, if necessary, but would preferably be built on existing organizations to provide technical assistance in the four areas mentioned above:

1) Material Development—putting together "educational tools" which are participatory in nature, can be easily made situation-specific, and which are usable with little or no training. (Ecuador's Servicio Nacional de Recursos Didacticos)

2) Training—designing and carrying out short-term training for immediate use, then following it up with recurrent sessions provided on an in-service basis, and on-site—not to professionalize, but to assist non-professionals in their work. (Botswana Brigades' practical skill training program)

3) Communications—combining at least four communications functions:
   a) Delivery of information, as is done in mass "campaigns"; b) providing for feedback and evaluation, which is done all too rarely; c) making possible local-level programming, using technology such as audio cassette recorders for radio program production; and d) facilitating "horizontal" information exchange, i.e., communication directly between participants in NFE programs, without any filtering through program staff or other authorities. (Tanzania radio campaigns, Ecuador's Radio Mensaje, Senegal's educational broadcasting program)

4) Finance—strengthening institutional arrangements which make it possible for communities to have access to loans and grants for development education activities. Something like this arrangement is part of the Upper Volta project mentioned earlier. We are thinking of an Educational Bank model, which would have a board including representatives of the rural communities which would set general policy that could be carried out by "educational loan officers" in semi-autonomous provincial offices.

That's our thinking at present. During the months to come we'll be filling in the gaps and looking for developing countries interested in taking on an effort of this sort. Given the possibilities for lowered costs and increased effective-
ness of this approach, we feel we have virtually no choice but to move ahead with, as the saying goes, all deliberate speed.

References

Section Three:

CURRICULUM INNOVATIONS

Proposed new curriculum content is described in Thomas' paper on futurism, Wulf's on education for peace and the Stone Foundation’s paper on achievement motivation. Duck, Shelton and Snyder next report on a program for field experiences in teacher education and Johansen and Swan describe a program for the clinical preparation of teachers.

Futurism

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Inscribed in the stone of the walls of the Jefferson Memorial in Washington, D.C. are the following words:

I am not an advocate for frequent changes in laws and constitutions. But laws and institutions must go hand in hand with the progress of the human mind. As that becomes more developed, more enlightened as new discoveries are made, new truths discovered, manners and opinions change. With the change of circumstances, institutions must advance also to keep pace with the times. We might as well require a man to wear still the coat which fitted him when a boy as civilized society to remain ever under the regimen of their barbarous ancestors.

Thomas Jefferson recognized that one of the central characteristics of the universe is change. This is also our initial premise. Change implies and admits process; it is a dynamic, not a static concept. Any dynamic process anticipates potentiality and if you have such potentiality you have the opportunity for creativity.

If we can agree thus far, I will state some additional premises:

1. Change means stress; at least it does in most human affairs.
2. Institutions change just as people change, always with stress.
3. Static institutional forms are inhospitable as learning environments; since learning implies change.

It is from these premises that we confront a new science: the science of futurism. Futurists not only accept Jefferson's contention that change is both inevitable and desirable, they are convinced that our survival demands the scholarly development of "anticipatory" information, or the systematic study of possible images of the future.

Now I know that for most of us, the future seems unreal because we cannot
remember it. Yet the future is on everyone's mind. When the pace of change accelerates and we are concerned lest we lose control, we seek ways to impose some stabilization on events. We recognize that we simply cannot stand around and just "let things happen to us". Futurism invents alternatives; it projects scenarios to see what the world would be like if such and such set of events were to transpire. If the results are desirable, plans can be set in motion to insure that future. If the results are undesirable, then plans can be formulated to frustrate that future. In other words, we assume we can control the future if we can just think systematically about it, and consciously try to shape it.

Futurism attempts to make short range, middle range, and long range predictions about alternative or optional futures. The accuracy of such predictions is, of course, dependent upon the thoroughness of the futurist in dealing with all known elements contained in his area of prediction, because we are sure that **all changes impact upon all other changes**. Accuracy is also subject to the intervention of what futurists call "system breaks". System breaks are unknown or unpredictable disasters, or profound surprises; events which defy anticipation and are enormous in their impact.

Why is futurism important to education?

Education is the major social institution franchised to induct the young into the society of the future. Therefore, if education is to be at all serviceable to the young, it must at least anticipate the existence of a future.

If we think of futurism as systematically and scientifically developing anticipatory information, we should not be frightened by it. In a sense, we in education have been trying to do this for years. When we train a teacher or an administrator, we design a training program which lasts three or four years. Logically such a program should be as relevant to the real world at its completion as it was at its beginning. Yet the pace of change in the modern world is so rapid that the graduate often confronts a world he never dreamed of when he began. Thus the trainer must try to anticipate that new world.

Compounding our problem is the additional certainty that the teacher- or administrator-graduate will then confront the need to formulate an educational program for children who we know will not enter their own adult world until many, many years later. Thus, the young teacher or the young administrator is immediately plunged into middle-range and long-range predicting. He cannot avoid it; he cannot remain at rest.

Alvin Toffler warns us that nothing could be more deceptive than tying our images of the future to the myth that tomorrow's world will simply be today's world writ large. He goes on to say in *Future Shock*.

"I would contend, in fact, that no educational institution today can set sensible goals or do an effective job, until its members from chancellor or principal down to the newest faculty recruit, not to mention its students, subject their own assumptions about tomorrow to critical analysis."

Such critical analysis obviously includes an in-depth study of policy deci-
CURRICULUM: Thomas

sions of the past and present which have defined who we are and what paths we are following today. Based on that research, which would include at least some theoretical constructs, we can attempt to forecast future policy needs and decisions. We look at policy statements (which are the formal expressions of our decisions) and we also examine policy outputs (or the things actually done in pursuance of policy statements) and policy outcomes (or the consequences for society, intended or unintended, that flow from action or inaction on a policy matter).

One methodology used is the Delphi technique, or the use of a panel of experts who individually establish their notion of a chronology of significant events—socially, economically, technologically, politically—which have impact on education. The responses of the panel are collated and then sent back to each panelist to re-assess and perhaps modify his or her responses. Again the respondent's judgments are collated, and returned. After a third round of responses, any panel member whose predictions do not fall within a certain range of all other conjectures, is asked to justify his position or change it. Finally a composite emerges.

Such a set of predictions in one field may be compared to another set from another field to achieve what we call a cross-impact matrix, in which the impact of events in one field of endeavor is measured as it interfaces with other fields. A third step might be to introduce simulation or gaming techniques at this point, taking the predictions of events and testing the responses to those events by another knowledgeable group of judges.

Of course the most difficult predictions are the forecasting of value changes on concepts like community, independence, privacy, respect for authority, or honesty. This can be seen in the aftermath of the Watergate affair in United States politics. Some predicted that Watergate's essential amorality—that absence of values that is neither moral or immoral—would precipitate a lusty return to a sterner morality, while others forecasted an eventual breakdown of morality almost akin to anarchy. At this juncture, it is clear that neither set of predictions has proven persuasive, but rather we have both responses occurring in a giant game of tug-of-war whose outcome has not yet been established.

Finally, for those who do not wish to embark into conjecture from a base of data that is already conjecture, one may systematically evaluate policies on such axes as cost, efficiency, effectiveness, and the capacity to leave subsequent options open. The results of such evaluations can well point the way to the "best" policies and therefore the "best" direction for the future.

Let me now take a couple of trends and trace the kind of futuristic speculations they inspire. We should expect increased recognition of the culturally pluralistic nature of the world. I would not quarrel with that prediction at all, but I would suggest that it has great potential in it for good—or bad. If it is my value that multiculturalism is desirable, that it should be encouraged and nurtured, then I will set out to make a series of policy decisions that will accomplish that goal. If I resist the trend toward acceptance of multiculturalism—that is to say, I insist upon nationalistic, or single tribalistic, or monocultural-
istic supremacy, then obviously I would set out to make quite a different set of policy decisions.

The futurist would assist me by projecting out what would or could happen when each set of policies were set into motion. In an area as broad as multiculturalism, this would engage the attentions of sociologists, political scientists, anthropologists and linguists, as well as educators. It would require a complex Delphi panel spanning a wide variety of disciplines responding to multiple events.

I think—because my values move in a given direction—that the outcome of such predictions would be that educators would favor the humanistic base implied in multiculturalism, and therefore educators would begin to construct an educational world that featured multilingualism, the construction of conflict resolution mechanisms, the re-assessment of communications policy and a host of other needed decisions.

Futurism, however, cannot be mere wishful thinking, any more than it is some sort of sub-set of science fiction. It must be at least as systematic as historiography, which in many ways it is, except that futurism operates on a different time dimension. Certainly one must remember the admonition of Herodotus who said “Few events occur at the right time, and many do not occur at all; it is the proper function of the historian to correct these faults.” In other words, the futurist cannot juggle reality to fit his scheme, or insert events that have not or cannot occur in order to perfect his vision of the future. Futurism requires intense scholarship—by that I imply a marked degree of objectivity—and scientific examination of what has happened, what is happening, and what therefore is likely to happen, given alternative scenarios or alternative images of the future. Futurism, methodologically, is then an exercise in logic. If A occurs, what are the logical next events? If that sounds simple, let me assure you that one would have to have, or have access to, probably from a computer, an incredible array of information in order to choose those possible and logical next events.

It must be clear by now that I share the conviction that educators are particularly in need of futurism as a significant field of study. Educators, perhaps more than any other group, must develop “anticipatory” information, and teach about tomorrow.

There is no escape from the future. Anything you do to try to avoid it is futile. Any activity in education which fails to confront the fact of change, which fails to keep pace with the times and which, as Jefferson said, “requires a man to wear still the coat which fitted him as a boy”, is an invitation to disaster, like rearranging the chairs of the Titanic, or decorating the bridge at San Luis Rey.
Education for Peace: Some Perspectives

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Assumptions

My presentation is based on two assumptions. First: Peace is a necessary condition for the continuation of human life on the earth. The future of mankind, of every society will largely depend on our success or failure to maintain a minimum peace, understood as absence of war. But it will equally depend on our success or failure to create a more peaceful international system providing more social justice to the countries today living in poverty and exploitation.

My second assumption is that the school and the teacher have a fundamental responsibility for the development of their society and therefore also for the development of the international system, which largely determines the future of every society. If we accept this responsibility of the school and the teacher, education has to take into consideration issues related to peace and social justice, since it is largely on them that the survival of the societies and of mankind on the whole depends. The dealing with issues of peace education is necessary, especially when we consider the teacher and the teacher trainer as change agents.

The thesis of this paper is that the concept of a teacher as a change agent implies the consideration of issues related to peace and survival within education. Education which does not deal with these central human issues is not able to provide the young people with an adequate perception of the world and of their own situation in it. This holds true at least for those countries which have already a developed formal educational system. For the time being it may be less urgent in those countries still searching for the development of a minimum of formal education.

Definition

War, exploitation and suppression are part of the international system as well as of the structure of our societies. They are expressions of peacelessness and violence, challenges to an education which searches to build up an adequate understanding of the world and the individual's role in it. An education which includes this challenge in its self-concept can be called peace education. Education for peace can be understood as the attempt of education to deal with different forms of violence and peacelessness in the international system as well as in the inner-societal structures, to analyze their interdependence and to contribute to their decrease. Education for peace deals with the economic, social, technological and ideological conditions of peacelessness and violence and tries to analyze their appearances using the personal experiences of the students as a point of departure. Peace education attempts to create the insight that the international and societal antagonisms equally determine many of the
contradictions and conflicts in the life of the individual. It attempts to make
the individual able to take a firm position in these contradictions and conflicts
and to exert by doing so some influence on the conflict formations on the
macro-level. In the process of the analysis of violence and peacelessness it is
important to create also an effective involvement of the students, since this is a
prerequisite for overcoming the experiences of political apathie. At the same-
time education attempts to make the students realize the existing social possi-
bilities for peace-related actions and to create in the students the commitment
to undertake those actions.

Education for peace—and I hope that this has already become clear in the
course of my presentation—cannot only be based on a negative concept of
peace understood as absence of war and violence. Absence of violence can be
only one element of a positive concept of peace, also often called social justice.
By using a positive concept of peace, which implies the decrease of structural
violence, peace education uses a critical and dynamic point of reference. Such
a positive concept of peace implies the use of values like social justice, eco-
nomic welfare, ecological balance and participation, guiding, for example,
much of the work of the Institute for World Order and the Education Com-

Potential Conflict Areas

As I have already indicated, dealing with conflicts on the macro- and micro-
level is of central importance for peace education. There are at least five conflict-
formations on the broad macro-level. Peace has to provide students with an adequate understanding of the international system.

1) The first conflict-formation consists of the conflicts between the leading
industrial nations of the West. Their relations are based on high-density inter-
action in terms of exchange of physical goods, highly organized interconnec-
tion and devices for institutionalized conflict settlement.

2) The second conflict-formation is one of relations between the industrial-
ized centres of the West, on the one hand, and the “anti-centres” of nationally
organized socialism on the other hand. This conflict-formation is the scene
of general system-inherent antagonism and armament race in particular, with
the latter so far being continued in spite of efforts for detente and cooperation
with a trend towards peaceful coexistence.

3) The third conflict-formation spans the industrialized centres of the West
on the one hand, and the societies of the Third World on the other. It is char-
acterized by asymmetrically structured processes of interaction within the
framework of a capitalist-ruled economic world system, pauperisations of per-
ipheral regions, and international division of labour under a pattern which has
worked to the benefit of the industrialized centres of the West.

4) The fourth conflict-formation is one between socialist societies, first of
all, between the Soviet Union and China.

5) The fifth conflict-formation consists of a wide range of conflict poten-
tials within the Third World, with some of them having proved to be conse-
CURRICULUM: Wulf

sequences of colonialist and neocolonialist action undertaken by the industrialized centres of the West. These conflict potentials should be understood against the background of centuries of capitalist history and in the context of this century's counter-movements which have not succeeded yet in putting an end to the stratification of the international society and its accompanying international division of labour.

Curriculum Development

An intensive development of curricula dealing with peace and justice-related issues in all subjects, but namely in the social studies, is needed. Preliminary approaches in such direction have been taken, for example, by the Institute for Order and the Center for War and Peace Studies in the USA, the work on curricula done at the Pomological Institute of Groningen, Holland, or at the Hessian Foundation for Peace and Conflict Research in the Federal Republic of Germany. There has been a wide variety of approaches, differentiated by content and methods. Certain trends obviously are coming to the fore, with more emphasis being laid on the international system with particular attention to relations between the Third World, on the one hand, and the highly industrialized countries in the West, on the other, accompanied by some emphasis on East-West relations. This, however, will not rule out treatment of additional subjects, if these are somewhat relevant to society, emancipation, structural violence, rule, conflict, aggression and prejudice.

Many of the classroom models so far available for peace education have suffered from intolerable reduction in curricular complexity. The following criteria should be observed in developing curricula for peace education, in order to keep pace with scientific progress in the field of education and to give due consideration to the close correlations that actually exist between the preparation of curricula, classroom practice, as well as regular and advanced education of teachers:

a) Curricula with relevance to education for peace must not be developed as complete and closed systems in which teachers and students are kept under steady control for each step they take in teaching or learning. In other words, no teacher-proof curricula should be permissible. Curricula for peace education should be designed rather as blueprints for action, open for incorporation of teachers' and students' experiences. Curricula should be conceptualized to encourage discovery and substantiation of alternative goals, new situations of learning, and redistribution of roles played by the persons involved.

b) Curricula with relevance to education for peace should be open to substantiation, use of adequate means, revision, and an unbiased approach. The criterion of substantiation will apply mainly to review and decision of goals of learning, examination of such goals for justification, and substantiation of ultimate decision. It should be considered also in decision-making regarding choice of curricular contents, media, methods and evaluation. The criterion of adequate means is also essential to the introduction of classroom models with relevance to peace. It has something to do, for example, with budgeting and al-

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location of personnel to prepare materials and other teaching aids suited for
the purpose in terms of time and method.

Much more attention than ever before will have to be given to the evaluation
of curricula in operation and all accompanying materials. In the context of ed-
ucation for peace, the concept of evaluation must be given a very wide inter-
pretation. It must not be restricted to mere checking of what has been achieved
in stepwise running of a teaching programme, a restriction often applied to
conventional cohesive curricula. Evaluation is necessary of the entire process
of preparation and implementation and has to yield both qualitative and quan-
titative information for modification and improvement of classroom practice.
An unbiased approach to problems is of major importance as a characteristic
of education for peace, since only such an approach will ensure sufficient in-
volvement and participation of teachers and students and thus creative co-
operation. Materials and documentation for education must be unbiased,
since in case of conflict with established goals of education, there must be pos-
sibilities for developing alternative solutions and interpretations in line with
changing conditions.

c) Curricula with relevance to education for peace should make reference to
general goals and subjects of teaching programmes or new guidelines. Such
reference must not lead to compromise on fundamental issues of peace educa-
tion but help to publicise and disseminate materials and blueprints for action
through their official use in the classroom. Consequently, education for peace
at school level needs unbiased and practice-oriented curricula and materials
which stimulate incorporation of individual experience accumulated by stu-
dents both inside and outside of the school.

**Teacher Training**

As the experience in the U.S.A., in Britain and in other countries has shown,
curriculum materials have only a limited value if the teachers do not know how
to work with them. The attempts to construct teacher-proof materials have
largely failed and are also in contradiction with the aims of an education for
peace including the right for self-determination and self-realization. Two con-
sequences result from this fact. First it is necessary to involve as many teachers
as possible in the process of the development of curricular materials, using cur-
riculum development as a strategy of in-service teacher training. Second, it is
necessary to deal with peace-related issues and courses at summer institutes on
a pre- and in-service teacher-training basis to create an awareness of the fund-
damental importance of these issues for the present and future development of
the world.

But it is not enough to develop an awareness and an ability to handle these
issues related to peace since education for peace also has to aim for the de-
crease of the structural violence in the school and in the immediate environ-
ment of the students. This has to lead to an attempt in teacher-training to
create an awareness of the influences which the school system and the teacher
within the system often exert on the students by stimulating a competitive ma-
terialism and a strong identity of belonging. Such an awareness of the structural violence in the school and its causes in the structure of the society have to become the point of departure to make the relationship between teachers and students more humane and to contribute by doing so to the process of “deschooling the school”, a more appropriate means of societal reform than deschooling the society. It is hoped that by making teachers sensitive to the issues related to violence and peacelessness, they will accept the task to contribute to the establishment of a society more peaceful and more committed to social justice. It is in this sense that the teacher and teacher-training have a fundamental responsibility for the future of the globe.
The Achievement Motivation Program (AMP) is a group process approach to motivation or voluntary behavioral change. It was developed at the Stone Brandel Center by a group of behavioral scientists, led by Dr. Billy B. Sharp. These psychologists, teachers, and social workers had one thing in common: they were looking for more effective and efficient methods of helping people change their lives from the traditional psychoanalytically oriented approaches to therapy and group process. Through self-conscious effort to apply the positive mental attitude philosophy of W. Clement Stone to group process, they developed AMP. We believe it has important implications for education.

AMP involves seminar and laboratory experiences for teachers, ministers, managers, and youth-serving agency personnel, with particular emphasis upon work with teachers and school administrators. We encourage the groups with whom we consult to constantly evaluate results and discover trends for projecting new programs. Feedback indicates that some rather remarkable changes have been made in the lives of both individuals and institutions.

Philosophy and Rationale

The Achievement Motivation Program (AMP) is based upon the philosophy that man has an innate desire to change and develop toward a state of self-fulfillment as a human being. Consistent with this philosophy, the Achievement Motivation Program aims to help each individual build a system of self-motivating behaviors that will generate a more fully functioning lifestyle. This development may occur at various levels:

1. The individual will first become aware of growth within himself; thus his own lifestyle reflects a systematic development.
2. "No man lives unto himself"; thus as a social being, he begins a new dynamics of communication with others.
3. When this development occurs within a preexisting staff or social unit, new team awareness usually evolves, leading to jointly established group goals (reinforced by each member) to generate a more fully functioning lifestyle.

Conceptual Base

The Achievement Motivation Program is based on selected crucial concepts. The following fourteen selected concepts comprise the basic frame of reference for the program:

1. Each individual has personality assets, physical and emotional strengths, and abilities gained from experience, some of which are identified and others unused.
2. Each individual has specific goals and long-range objectives that are meaningful to him.
3. All individuals, within themselves, have the desire to change and to grow.
4. The opportunity to design one's own learning situation provides additional motivation to develop and change.

5. Group encouragement and reinforcement assist in individual exploration and change.

6. The present can be altered and the future directed without explanation of the negative past.

7. Emotions may be affected by signs and symbols; they will respond to action.

8. Human behavior is strongly influenced by its present environment.

9. Meaningful education is a continuous process. It is, by and large, predicated on need and desire.

10. Peers learn best from peers when new information and experiences result from the relationship.

11. An individual learns success from those he selects as successful; the association is essential.

12. An individual continues to develop by completing a desired activity and by moving to a new experience.

13. Each individual has a purpose within the universe. Identifying and pursuing this purpose are vital parts of fulfillment.

14. Learning occurs when an individual recognizes and accepts the differences between his failures and another's success and bases his next action on that information.

Seminars

AMP seminars are divided into four phases of development:

Phase I—Building a Personal Power Base
Phase I provides an opportunity for an individual to participate in a small group process, where, by sharing past personal success, the group aids in the development of each individual's strength profile. Guides for goal setting are used to reinforce insights and growth potentials.

Phase II—What do I Value?
Through various exercises, each individual ranks 21 value areas and identifies his psychological needs for success. These are combined with his strength profile; consequently, an operational zone is defined. Goals are set in accordance with new potentials.

Phase III—Creative Life Management
Using the data developed in Phase I and II as a base and realizing that conflict is a natural part of growth, we explore approaches to conflict management. Our objective is to reaffirm the uniqueness of the individual while creatively managing conflict. Goal setting is used to reinforce growth.

Phase IV—Organizational Development
Using the concepts of the first three phases, we focus on the team and on the organizational framework within which the individual operates. The organi-
ization becomes unique, possessing strengths and values and experiencing conflict. Goal clarification and accomplishment are ongoing processes. Interwoven throughout the seminars are experiences designed to provide skills in effective verbal and nonverbal communication and practice activities to aid the participants in more fully activating their potentials. Each of the phases includes:

- Establishing affirmative rapport
- Content presentation and familiarization
- Activity experience to reinforce concepts

We would expect some of the following behavioral changes to occur:

- More of a positive self-image due to the identification of each person’s strengths
- New areas and methods of communication between group members
- A new team consciousness
- Awareness and motivation to aid in establishment of group goals
- Confirmation of one’s worth as a human being
- Conceptualization of a lifestyle consistent with one’s strengths and values
- Ability to identify conflict and to react in a constructive growth-producing way

**Results**

Achievement Motivation Programs offer maximum flexibility and can be used in a number of ways, depending on your institution, its size and its needs:

- There is a new emphasis on the individual student—education is humanized.
- Administrators, teachers and students gain an improved self-image. They develop new communication skills.
- They become willing to build upon (and to share) their strengths.
- Administrators, teachers and students relate to each other in a new context of affirmation.
- Each person identifies and/or clarifies his own personal value system.
- Each learns to accept and respect the personal value systems of others.
- Each person is encouraged to perceive individual competition as a constructive part of cooperation and learning.
- Administrators, teachers and students display a high degree of creativity; there is a new willingness to take risks.
- Teachers and administrators inspire students to provide their own resource potentials; to teach each other; to guide and help each other.
- The dropout factor is sharply reduced; discipline problems decrease; “problem” students are no longer recognizable as “problem” students.
- Students willingly involve themselves in a variety of worthwhile school and community pursuits.
- There is a new emphasis on strengths rather than on weaknesses and problems.
CURRICULUM: Stone Foundation

- Conflicts are resolved creatively so as to produce growth rather than its opposite.
- Administrators, teachers and students are able to function efficiently and effectively in an environment of rapid change.
Field Experience Programs:
Development, Organization and Conduct

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Introduction

In contrast to the public school divisions in Northern Virginia which enjoy a high level of financial support, George Mason University has had only limited financial and personnel resources to support its rapidly growing programs. These limitations were a major factor in shaping the development of our field experiences program. Philosophically, the Department of Education is committed to the "Laboratory Experiences" concept of teacher education. This means that theoretical instruction must be supported by laboratory experiences in school settings which enable the student to associate theory with practice and to gain practical experience in the application of theory to school situations.

The problem facing the Department of Education was that of securing the cooperation of school systems in developing a field experiences program which would fulfill the philosophical requirements of the "Laboratory Experiences" concept of teacher education and be supportable by the limited resources available to the university. The initial 1967 agreement with the Fairfax County School System made available three elementary schools, a middle school, and a high school for field experiences. This agreement proved to be unsatisfactory to the university and to the school system. The requirement that each student visit to a school be arranged individually by the university and the school was a major administrative burden. Such a system could not provide the required degree of participation in school activities. Clearly a more workable program was needed.

The Concept of Field Experiences

The term "Field Experiences" designates three kinds of student involvement in public schools: (1) pre-student teaching field experience, which we usually call simply "field experience"; (2) student teaching; and (3) internship, which refers to appropriate involvement by our graduate students from one of the following programs—Elementary Education, Secondary Education, Special Education, Administration, Supervision, Reading and Guidance and Counseling.

To meet the need for a satisfactory field experiences program supportable within the available resources required a simple, flexible and easily administered system.

In the fall of 1970 a proposed system for conducting a field experiences program was developed and submitted to the school systems in Northern Virginia.
for comment and/or approval. The proposed plan was to be built around the following provisions:

1. Field experiences would begin with the first course in education during the second year of college.
2. Each course would include approximately fifteen hours of activities within a school setting.
3. Students would be permanently assigned to a school and remain with that school through the student teaching experience.
4. After the initial assignment, the student would arrange with the school for his own field activities.
5. Students would not receive credit for the course until the field experience activities were completed.
6. The student would maintain a log of activities which would be certified by the school.
7. Schools would report unsatisfactory performances by telephone or by memorandum to the field experiences office.
8. The university would maintain a record of field experience activities in the field experiences office by filing the certified logs of activities.
9. One semester hour of credit toward the degree would be allowed for each 30 hours of field activities up to four semester hours.
10. Student teaching would be expanded from eight to ten weeks and would be preceded by two intensive courses in methodology taught during the preceding six weeks period.
11. Part-time, half-day students teaching at the secondary level would be discontinued.

The plan met with the general approval of the school systems and was to become effective with the beginning of the 1971-72 academic year. A manual outlining the types of activities for each professional course was prepared and provided to students, school administrators, and teachers cooperating in the program.

The growing pains involved with the program during the first two years of its operation were considerable.

First:
There was a lack of understanding on the part of college faculty, school administrators, and cooperating teachers concerning the manner in which the program should operate.

Second:
Students felt that an unrealistic requirement had been imposed without due notice.

Third:
There was a reluctance on the part of school administrators to permit the university to work directly with designated schools.

Fourth:
Because student teachers are in demand by most schools, there was a reluc-
tance on the part of school administrators to continue assignments through the student teaching period.

During the first year there seemed to be a real danger that the program would not gain acceptance. The key factor in its eventual success was the enthusiastic acceptance by students once they had gained some experience in working in a school setting. Beginning with the 1972-73 academic year, when the value of the program had become clear to our students, we began to solve the major problems.

Pre-Student Teaching

Realizing that there had been little articulation and continuity in the Field Experiences Program, the logical first step seemed to be that of finding a means of developing cohesiveness. In developing the program, it was decided that a Field Experiences Advisory Board be established in order to provide articulation and get input from all the representative groups.

Since George Mason University works with six school divisions, it was decided that a school administrator from each system, a classroom teacher from each system, three faculty members from the university, and two university students be invited to participate, each group, of course, choosing its own representative. The term Advisory was deliberately included in the title in order that there would be no doubt about its status.

The first step taken was to formulate a description of the Program, which attempted to answer such questions as relationship to curriculum, the aspect of activity/passivity, etc. It was recognized that a philosophy should be developed, and was, therefore, one of the first tasks. The philosophy developed, of course, was an extension of the philosophy of the Department of Education, which embraces the "Laboratory Experiences" concept.

The following represents the objectives and the suggested activities for foundations of Education. These are delineated in the Field Experience Manual for all courses.

Education 301: Foundations of Education

Field Experience Requirements: 10 hours

Objectives:
The student should gain insight into:
1. the responsibilities of teachers to pupils
2. parents and the community
3. the school administration and organization
4. relationships among members of the school staff
5. time and effort involved in preparation for instruction
6. nature and characteristics of the community
7. nature of the profession

Suggested Activities:
In terms of what is available, what the student can handle, and the time available for the experience, the following list should suggest specific activities
that the school can provide the student in order to accomplish the field experience objectives listed above.

1. Observe teachers working with students, parents and other members of the staff.
2. Participate in the instructional program in some manner.
3. Observe and possibly participate in playground activities, lunchroom, extracurricular activities, etc.
4. Attend meetings involving parents, faculty, etc.
5. Have access to and become acquainted with the kinds of reports for which the school is responsible.
6. Provide opportunities to talk with members of the staff to inquire into purposes of various school activities.

**Student Teaching**

Student teaching occurs within what is called a "professional" semester. Students enroll for the "professional" semester during their final year of undergraduate study. The "professional" semester includes five to six weeks of study at the university in two methodology courses, which is followed by a ten-week period of full-time student teaching. During methods instruction, students are involved on a part-time basis in the same setting in which they will student teach.

Before students enroll for the professional semester, they are interviewed by a faculty member in the Field Experiences Office concerning their specific professional needs and the particular setting in which they wish to be placed within the school or schools where they completed field experience activities. At that time a final check is made on eligibility for student teaching. Permission to student teach is actually granted by the University-wide Teacher Education Committee, which considers the coursework preparation, the grade point average, and reports of general performance of each applicant in university classes and reports of field experience involvement in public schools.

Final evaluations of the student teaching experience are made by each college supervisor and cooperating teacher. Any final evaluation is usually discussed in detail with each student teacher by the person who wrote it. Even though the college supervisor is actually responsible for assigning a final letter grade, input regarding that grade is received from the cooperating teacher's final evaluation and usually from the student teacher's self-evaluation. This process of formal evaluation for student teaching differs greatly from the pre-student teaching field experience in which evaluation is always informal.

**Internship**

The internship phase of George Mason University's Field Experiences Program includes about 40 graduate students each semester. In many instances these students are already employed by local school divisions. Such students may complete the internship requirements for advanced degrees within the
schools where they are employed, or they may complete these requirements during public school summer sessions.

Students who apply to complete internships are counseled by the appropriate graduate coordinators. Requests for public school placement and the specific activities to be completed during internship are designed to meet the particular professional needs of each student and are finalized during counseling sessions with appropriate graduate coordinators.

Conclusions

I would like now to briefly summarize the major problems we have encountered in carrying out our field experience, student teaching and internship program.

The major problem involved in any such program is one of communication in order to promote understanding of all concerned with respect to the objectives, administration, and conduct of the program.

A second problem is that of securing the full cooperation of faculty in integrating the field experience requirements into their courses in a meaningful way.

A third problem is that of simplifying the administration of the program through the cooperation of school systems in permitting the university to work directly with designated schools.

A fourth problem is that of competition for student teachers which results in difficulty in maintaining a student's assignment throughout the entire period of professional preparation.

A fifth problem is the lack of an adequate program for training cooperating teachers in the supervision of field experience students, interns and student teachers.

A sixth problem is that of persuading the university authorities that sufficient resources must be made available to support such a program.

Overall, we feel that we have enjoyed a considerable measure of success with our field experience program. We cannot provide statistical information which would support that contention; on the other hand the enthusiasm our students have demonstrated is, we believe, the best measure of its success. Perhaps it is a model which would be valuable to institutions whose resources are limited and who wish to provide practical, as well as theoretical, instruction for prospective educators.
The Clinical Preparation of Teachers in the U.S.

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The model program is built around a series of clinical experiences which are early, continuous, and substantial. The first and lowest level is that called observation which involves simply watching educational activity. Participation is the second and slightly higher level of clinical experience which allows the future teacher to actually participate in the teaching process. Simulation, the third level, is where the student is placed in a “life-like” teaching situation. The fourth level is micro-teaching in which the student teaches mini-lessons to small groups of students while being video taped. Student teaching, the fifth level, is the most commonly known clinical experience, in which the future teacher gradually assumes the role of a regular teacher. Internship is the final and most advanced type of clinical experience. This generally takes place during the first year of teaching as part of a masters degree program.

During the freshman year, the typical student enrolls in a number of general education courses and the first professional education course. This course is structured around sixty clock hours of observation/participation in a variety of educational settings and includes seminars, individualized work in the teacher education Learning Center, as well as lectures.

During the sophomore year, the student completes the general education courses and enrolls in the second professional education course—a full semester block of educational psychology courses. This block provides for two full months of participatory clinical experiences, individual work in the Learning Center, small group work, lectures, and simulation activities.

During the junior year, the teacher education student, as part of a full semester block of education content and methodology courses, spends two months working in the field as well as doing extensive work in the media production and machine labs in the Learning Center. In addition, the students intensify their study of curriculum materials and engage in micro-teaching to refine specific teaching skills.

During the senior year, the teacher education student studies educational foundations and evaluation, completes elective courses, and spends one full semester in student teaching. The student teaching experience begins with getting acquainted with the school principal, the cooperating teacher, and the school staff as well as observing classes. Under the guidance of the cooperating teacher and the university supervisor, the student teacher gradually assumes the role of the regular teacher.

Much time is spent in preparing and selecting instructional materials. The student teacher gets involved in a host of activities with the cooperating teacher, e.g., parent-teacher conferences, faculty meetings, field trips, etc. In addition, the student teacher meets periodically for seminars with other stu-
dent teachers and the university supervisor, and also engages in an outdoor education experience with school children and other student teachers. Evaluation and supervision are ongoing through the partnership efforts of the cooperating teacher and the university supervisor, and are aided by the use of portable video tape recorders supplied by the university.

This model of clinical experiences is possible only through the partnership of the university, the schools, the state department, and the teacher organizations who together design and deliver these clinical experiences.

We believe that this clinically-based teacher education program represents a most promising and exciting way to prepare teachers for our classrooms of tomorrow.
Section Four:

EDUCATIONAL TECHNOLOGY

Ways in which a more scientific approach to teacher education can be introduced is the subject of Dickson's paper on competency-based teacher education and Conkright's on instructor training in industry. Teter's paper on the Appalachian education satellite is followed by Leavitt's on the need for making more accessible the world's experience on the uses of educational technology.

Competency-Based Teacher Education

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Having been associated with what is commonly known as competency or performance-based teacher education for the past six years, we submit that this educational concept and program is a type of change strategy which can go far toward providing a systematic approach to handling educational complexity and which will be more than a haphazard attempt to modernize teacher education. We will provide a brief explanation of Competency-Based Teacher Education.

Definition of CBTE

The strategy involved in the development of competency-based programs is that outcomes expected to be derived from such programs are clearly specified. Operationally, this means that the knowledge, skills, attitudes, sensitivities, competencies, and so on, that prospective teachers are expected to have upon completion of a teacher education program are specified and the indicators which are acceptable as evidence for the realization of these outcomes are made known. This type of teacher training is called Competency-Based Teacher Education. Such efforts simply mean that the competencies to be acquired by the student and the criteria to be applied in assessing the competency of a student are made explicit and the student is held accountable for meeting these criteria. The teacher competencies to be specified are teacher understandings, skills, attitudes and behaviors that facilitate the intellectual, social, emotional and physical growth of children.

CBTE programs commit those involved to the use of competency-based criteria for teacher preparation. These competency-based criteria will hold stu-
students, and ultimately teachers, accountable for their realization and such realization is based on acquired knowledge, demonstrated performance, and predictable products. The idea is that only when a prospective teacher has the appropriate knowledge, can perform in a stipulated manner, and can produce anticipated results with learners will he meet competency-based requirements. Such criteria demand the use of behavioral objectives as a form for stating outcome expectancies. There must be reasonably precise statements of the specific competencies to be achieved and there must also be reliable procedures for assessing competence in terms of the appropriate criteria developed. Obviously, decisions on what behavior and what products are to serve as a criteria base must be made in collaboration with appropriate agencies or persons who act together to specify appropriate knowledge, behaviors, or product outcomes. Competency-Based Teacher Education programs have developed the instructional format termed a module or behaviorally designed curriculum unit, to increase possibilities for self-pacing, individualization, personalization and other means of instruction.

The CBTE trend in American teacher education is obviously toward a stronger emphasis on performance and product. An increasing number of people in the teaching profession have become unwilling to accept the assumption that simply because someone “knows” something he can necessarily apply his knowledge. We are becoming increasingly uncomfortable with the magnitude of inference between “knowing” and “doing,” and the time has come to ask prospective teachers for the evidence of what is expected of them as well as that which is specified for them. Knowing and the ability to apply what is known are two very different matters.

The Use of CBE in an International Setting Exporting the CBE Model

The first problem that comes to mind in exporting a CBE model is the problem of cross-cultural differences. Many of the needs to which the CBE model addresses itself in the United States at first appear not to have relevancy in another setting. First, being built on the taxonomy of learning, CBE requires the student to move through all levels of learning from knowledge and rote memorization to analysis, evaluation, and synthesis. Historically, some school systems have required students to function primarily at the knowledge and recall level through much of their elementary, secondary, and sometimes collegiate preparation. Our analysis of the black Bantu education system of South Africa found this to be true. Using a modified CBE/Accountability model, we found few objectives at any level above that of knowledge or application. Second, the CBTE model requires a certain level of sophistication and media technology. Teachers and students must be able to use a variety of learning methods; they must be willing to move away from the strict concept of lectures. Third, the CBTE model requires teachers to become integral parts of the learning process; and to do this, they need to receive inservice education both for the understanding and writing of objectives and using evaluation for diagnostic purposes in order to match objectives to teaching strategies and
TECHNOLOGY: Dickson

testing. Fourth, exporting CBTE is uniquely an American invention. It was built on learning theory developed initially in Russia, enhanced in staff structures using the open school concept pioneered in Britain and uses multi-team and multi-media approaches as an integral part of curriculum development throughout the world.

In exporting CBTE, the norms we must attempt to overcome are basically norms inherited from a nineteenth century concept of education in which the student is a passive participant where very little exploration, creativity, or hard analysis is required. The biggest problem in creating change is getting the faculty to update themselves.

The Final Recommendation

It seems imperative that the International Council on Education for Teaching establish a major teacher center or resource collection bureau where scholars throughout the world can begin to share the problems, promises, successes and failures they have had in developing new models in education. To this time, we have seen school after school “re-invent the wheel.” Or we have seen superficial discussion of ideas and materials. What we would propose is that the greatest service ICET can perform is to establish a center where modules could be collected and scrutinized, where scholars could begin to run process evaluation on each other’s materials, where we would meet specifically to share ways of incorporating cross-cultural materials in our own curriculum, and where we could benefit from each other’s mistakes. What we are suggesting is worldwide cooperation in an attempt to use technology and learning of the 20th century in preparation for the 21st. It would seem imperative that one collection of ideas and experiences be formalized so we may all understand and have a variety of options open to us based upon sophisticated and realistic approaches to learning.

Reference

Instructor Training in the Individualized Instructional System

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Individualized Instructional System

Control Data has been involved in education for nearly seventeen years. In recent years, the company has rewritten nearly all of its curriculum to reflect an individualized approach. (See Figure 1)

Each course is composed of self-contained units of instruction. Each unit is constructed using measurable objectives that are sequences from the simple to the complex, the concrete to the abstract, or in some other logical way. Every unit contains a number of learning blocks, each with its own objectives, pre-test, learning activities and evaluation procedures. The participant begins the unit by reading a statement of rationale that explains the nature of the unit and justifies the unit objectives as worthy of student mastery.

Next, the learner takes a pretest to determine whether or not he has mastered the block objectives in another learning situation or through informal reading or work experiences. If the pretest indicates the person already has attained the objectives, he can bypass the block, but if not, the participant must proceed through the other block components.

After reading the explanation of the block objectives, he engages in learning activities designed to help him reach those objectives. The learning activities may take a variety of forms including readings, lectures, audiotapes, videotapes, films, pencil and paper exercises, small group discussions, computer-assisted instruction, or projects at home. Some of these activities may be required of all users who engage in a block. Some may be alternatives to required activities and others may be optional.

(See Figure 1, opposite page.)

Upon completing the learning activities, the participant takes a progress check. If he fails the check, the individual is recycled through additional learning activities. If the progress check is passed, he proceeds to the next block of the unit.

The participant follows the same sequence through all unit blocks, then takes the post test to show that he has mastered the core of the unit. Control Data Corporation-designed units provide the user with the option of engaging in additional learning activities after completing the core of the unit. These supplemental experiences either reinforce unit objectives or allow the person to explore the unit topic in greater depth.

Systemized instruction leads to effective learning; the individual will not fail as long as he remains in the system because he is not directed to stop until all minimum performance standards have been met. Efficiency is assured because the system always directs the learner into meaningful activities that lead to mastery of objectives.
The individualized instructional system has been successful in enhancing learning outcomes because of its distinct advantages over the traditional system. Included in these advantages are the following benefits to the student:

- Enables progress at the student’s rate;
- Provides several media to promote and maintain interest;
- Provides frequent feedback so the student can assess his own progress;
- Provides only essential information;
- Provides consistent instruction to all students; and
- Provides the student with a system with which success is highly predictable.

Benefits to the instructor:

- Gives the instructor a total management system at his fingertips where each student’s programs may be specifically monitored and measured;
- Affords the instructor a built-in testing and monitoring system which helps to determine initial course entry point and rate and direction of progress;
- Reduces the time spent lecturing and increases the time for evaluating and writing pupil-tailored prescriptions; and
- Provides the instructor with considerable time for personal consultations with students to carefully note rate of learning, strengths, weaknesses and total progress.

Benefits to the school:

- Enables students to begin a course at any time without waiting for a critical number to start together;
- Reduces equipment needs and increases facility utilization since various students in one course are on different lessons at a particular time;
- Gives the school an additional educational management system which is inherent in individualized instruction;
- Provides additional training for teachers which lends itself to a better quality education; and
- The individualized instruction system uses a number of instructional methods which are all designed to meet the individual needs of the learner.

These instructional methods include individualized modules, referenced texts, simulation activities, and media resources such as videotapes, audiotapes, sound-on-slide activities. The study carrel is used by the student to bring to his fingertips videotapes, audiotapes and sound-on-slide activities.

**Learning Resource Center**

Although the individualized instruction system is a very powerful tool in reaching maximum learning potential, its effects are best realized when used in an appropriate environment. This environment should be a specifically designed instructional facility or coordinating facility, and a facility which makes available media resources and equipment. The Learning Resource Center commands these functions to produce the environment most conducive to individualized learning. The IRC concept and technology has been developed to better the educational process and quality of learning for individuals and organi-
zations. Based on the philosophies of systemized learning and individualized instruction, LRC's allow more classes to be available to more people in more locations. The process of learning is convenient, effective, and efficient, utilizing technology to supplement and enhance human resources.

Staff Training Program

Since these approaches are different from education as practiced in most other locations, a training program was needed both for preservice and in-service training of staff. This program is still evolving and developing, but has reached a stage sufficient to meet Control Data's present needs.

There are five courses that presently comprise the training program. These courses are all presented under the leadership of a trained and experienced practitioner, but contain text materials and self-paced materials. Each course has a flexible structure to meet the needs of a particular situation. The five courses are:

- Instructional Skills  2-3 weeks
- Curriculum Development  1-3 weeks
- Learning Center Operations  1-2 weeks
- Audio-Visual Productions  1-2 weeks
- Administration and Management  2-3 weeks

The Curriculum Development introductory course leads into an extensive course called CREATE which prepares programmer/developers for the PLATO computer education system. Likewise, the Administration and Management course may be followed by an extensive series of management courses.

The major topics within the Instructional Skills course are:

- Introduction to Individualized Instruction
- The Setting & Facilities
- Learning Theories
- Relating to Students
- Group Processes
- Instructional Evaluation

Within the introduction, the major topics especially indicate the emphasis on the individualized instructional system. The need is demonstrated through simulations and class discussion. A detailed presentation of different models of instruction comparing and contrasting the structures and goals is followed by further definitions and explanations of the concepts supporting the individualized system. The instructor's guide and the structure of a course is explained in detail. Finally, the role of the various personnel in the system is explained.

In the setting and facilities unit, emphasis is placed on the Learning Resource Center, its operation and relationship to laboratories, classrooms and off-campus supervised experience.

The evaluation unit presents possible approaches for feedback and critique.
by all of the major participants in the instructional process, including alumni and their employers.

Various procedures exist for pairing the newly trained instructor with a senior, experienced instructor in order to assist in the maturing process for both. This only partially replaces the formal supervised teaching practicum that is an essential part of a complete instructional training program, but is a full step removed from leaving the instructor to his own devices.

In summary, Control Data's professional educators are developing a complete training program to meet the requirements of the individualized instruction system in the technical world. Teacher training for instructors in business, government, military and related public institutions is often ignored by colleges and universities. Control Data has been integrating selected educators from academic institutions into its training programs in order to continue to synthesize the best from both environments.
Education for Innovation: The Appalachian Education Satellite

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The Appalachian Commission was established by the U.S. Congress as an economic development agency to give special attention to the needs of a region within the United States. By virtue of this mandate, the Commission has become directly and deeply involved in education, for in any development effort—whether it is economic, social or a combination of both—education is the single most important tool man has at his disposal.

The Appalachian Region

The region lies along the spine of the Appalachian Mountains in the eastern United States. It is an area with its own special character and traditions; its own special problems and potentials. As defined by law, Appalachia includes all or parts of 13 of the United States. Characterized by high rolling hills and deep valleys, it is one of America’s most beautiful and rugged regions. Like the land, the people who live in these mountains have a distinct character all their own.

Early History

In the early days of the country, the Appalachian Mountains were a barrier to westward migration. These mountains were densely forested; the valleys were narrow and suitable for farming. Most settlers followed the few established Indian trails through or around the mountains to the midwestern country where the land was flat and farmable. Some did settle in the mountains, however. These were the people who sought seclusion and the beauty of the mountains... those who shunned towns in favor of solitude.

These people rarely clustered into towns, preferring to live in virtual isolation, dependent upon the plentiful game and a small vegetable garden for food. These people were independent by nature; loners by choice. As their families grew, the children, too, remained in the mountains, usually marrying someone from a nearby valley and making their own homes within easy distance of their families. This tradition continued for generations. The results were strong family unions and small settlements closely bound by blood ties.

The only industry that developed in the early days was lumbering. Years later when coal was discovered, the descendents of these early settlers were still living in their narrow valleys, relying upon hunting, a little farming and lumbering for their livelihoods.

The discovery of coal revolutionized Appalachia. Having lived largely in isolation for generations, Appalachians were easy prey for land speculators and coal companies. Innocent of the value of coal, they sold tracts of land and mineral rights worth millions of dollars for a few pennies an acre.
Economic Deprivation

At the same time, it was becoming more difficult for the people to continue to live off the land. As the population increased, game decreased. Large-scale farming was impossible and grazing land for cattle or sheep was limited. And, so, Appalachians went into the mines. Coal quickly became the region's major industry and its major employer. Within a few years, the typical image of an Appalachian changed from that of a man of the mountains to that of a miner, his face blackened by coal dust. Although the coal industry, and to a lesser degree lumbering, provided jobs, neither industry added much to the public coffers. Most of the major coal and lumber operations were not owned by Appalachians. Primary control and profit for the two industries went to people living outside the region. Industry is a key source of income in most of the United States; such was not the case in Appalachia. State and local governments profited little from the extraction of its valuable resources. As a consequence, the tax bases remained low. State and local governments could not afford the expensive highways or community facilities needed to attract other industry. The situation in Appalachia was not unlike that of the coal mining regions in England and Wales in the early part of this century.

The industrial revolution and growth in technology began to take its toll on the coal industry with the onset of the 20th century. Mechanization of the mines gradually reduced the amount of needed manpower. By the end of World War II, the demand for coal plummeted with the increased availability of petroleum. The impact of these changes was nowhere more dramatic than in Appalachia. Men whose only training was in the mines found themselves displaced by machines. As demand decreased so did production; many mines closed.

Thousands of miners found themselves without jobs and without the skills to adapt to new industry, had there been any. Lack of money and planning had prevented the state and local governments from preparing for just such problems. The region was isolated from the rest of the nation by its mountains and its inadequate highways. Appalachians who, like their fathers before them, had lived in the mountains all their lives were ill-equipped to deal with the so-called "outside world." Their education was minimal, their culture different.

Nonetheless, many were forced to leave in search of jobs. The region, by the late 1950s, was in critical economic straits.

Educational Deficiencies

In such an economic crisis, education often suffers most. Such was the case in Appalachia. The school systems were financed by state and local governments which, with their low income levels could afford neither to build new facilities nor to invest in modern teaching equipment and materials. Perhaps most tragic was the inability to pay educators salaries comparable to those offered elsewhere in the nation. Appalachia could neither attract nor keep the most competent teachers...
In 1970, 13 percent of the region’s teachers were uncertified. Studies revealed that a great majority of the teachers were older, were born in the immediate area, were poorly trained initially, and were largely isolated from information about current developments in education. Most had served for many years in the same area and had not updated their teaching skills and subject knowledge.

And, to complicate the problem, most school systems offered salaries far below the national average, making it nearly impossible to recruit new teachers. Those new teachers who did come into the region often left after a year or two, frustrated by the lack of resources and the lure of higher salaries elsewhere.

The Appalachian Education Satellite

This problem led the commission to what is perhaps its most exciting venture in education—the Appalachian Education Satellite Project. Last year the National Aeronautics and Space Administration—the same agency that sent man to the moon—launched the sixth in its series of applied technology satellites, known more commonly as ATS. This sixth satellite path crossed Appalachia making it possible to beam programs into the region. The commission saw the ATS-6 as a means of improving the quality of inservice education by distributing high quality courses from a central source. We know that costs for reception equipment are a major factor in Appalachia where needs are great, but communities can least afford the expenses. For this reason, ATS-6 was especially appropriate since the basic TV reception equipment was relatively inexpensive—about $4,000 per site compared to hundreds of thousands of dollars for previous satellite reception systems.

For the Appalachian satellite demonstration, 15 classroom sites were chosen scattered throughout the region, all in regional education service agency areas. All sites were equipped to receive both pre-taped and live programs via ATS-6. Five of the 15 sites also were equipped to receive and transmit two-way radio via another of the educational satellites. The University of Kentucky in the Appalachian state of Kentucky was selected as the resource coordinating center for development of course materials.

The University designed several learning activities to exploit different capabilities of the ATS-6 used alone and sometimes in conjunction with a second satellite. These learning activities included a series of 30 minute pre-taped television programs. They differed from most graduate level lectures in that they were punctuated with filmed interviews with content experts and teachers, and with short episodes showing actual Appalachian teachers applying instruction techniques in the classroom. Other courses involved direct participation by those taking the course through live seminars; other activities were carried out with use of the satellite . . . laboratory sessions, for instance.

Through this project, 1,200 Appalachian educators were able to participate in inservice training courses that were offered simultaneously in eight Appalachian states. Later evaluation by the teachers showed they considered the
coursés to be more effective on the whole than similar coursés taught on col-
lege campuses they were familiar with.

The implications of the ATS-6 experiment are somewhat overwhelming to
Appalachia where the mountains make TV reception difficult at best. ATS-6
makes it possible to receive and re-transmit to surrounding areas so that a
larger number of people receive the signal; it facilitates use of a wide range of
resources not available in the region in the way of expert participation: and,
perhaps most important, it makes possible two-way communications among
students receiving the course and experts in many other parts of the country
through the combined use of ATS-6 with other of the education satellites.

Equally exciting is the possibility it opens to reaching Appalachians in their
homes through better television reception. Over 89 percent of Appalachian
homes do have television; nearly 20 percent are served by cable television. In-
struction television fixed services—designed to link various institutions sepa-
rated by distance to a central transmitter—are not widely available elsewhere
—but we now have six such installations in Appalachia.

In the number of educational radio and television stations serving the region,
and the growing interstate cooperation to develop regional television net-
works, Appalachia clearly has the foundation for an electronic education pro-
gram that could be the model for other similar programs throughout the mod-
ern world. The possibility exists—through utilization of electronic technology
—of developing educational systems that by-pass conventional schools and
reach millions of people who are not well-served by the existing educational es-
tablisms.
Technology in the Education of Teachers: How Countries Could Cooperatively Advance the State of the Art

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The text for my speech is taken from the words of America's distinguished philosopher, John Dewey. He once wrote, "While saints are engaged in introspection, burly sinners rule the world." Dewey never explained exactly what he meant by this. Since one person's sinner may be another's saint and vice versa, I shall have to explain my use of the statement and carefully identify for you whom I place in each category. My biases will thus be clear to you from the start.

The Burly Sinners of Educational Technology

The burly sinners of educational technology fall into two categories. The first includes those who regard educational technology as a panacea for the solution of educational problems. Historically, sinners in this category have cost us lots of money. Exploiting people's longing for shortcuts and breakthroughs in the solution of educational problems, and capitalizing upon the impatience of many over the slow pace of innovation, they have succeeded in selling governments, school systems, and administrators large costly programs with little concern for how the technology would be absorbed into and adapted by an educational system. Because of their exaggerated faith in what educational technology can accomplish, they tend to brush aside or minimize the major problems that inevitably accompany the initiation of educational reforms and the careful planning that should accompany it.

Some of these sinners carry to the extreme the planning of strategies which aim to control, manipulate or shape learners' behavior from outside the individual. Little concern is expressed for attitudes, feelings, creativeness, and intrinsic motivation of students. The teacher is frequently identified as the main obstruction to innovation and therefore these sinners have, in the past, tried to devise bypass strategies like making a program "teacher proof", i.e., a program that cannot be spoiled or tampered with by a teacher. Fortunately, sinners of this category are decreasing in number as educational systems all over the world are learning through hard experience that technology has to be carefully and thoughtfully adapted and fitted into an ongoing educational system. As every educator knows, this is a time-consuming and complex process.

The second category of educational technology burly sinner is found at the opposite extreme, 180 degrees away at the other end of the spectrum. In this group are those who categorically reject the uses of educational technology. They believe that it demeans the teacher, that it is anti-intellectual, anti-humanistic, that it diminishes creativity, individual autonomy and imagination and that it attempts to sugarcoat the learning process. People in this category
and the number is large, are the latter-day educational technology Luddites. (The Luddites, as you may remember, were a group of English factory workers who, during the earlier days of the Industrial Revolution felt so threatened by the advent of technology that they smashed factory machinery in protest.) There are many sinners in this category and they wield much influence. In their ultra-conservatism they believe that existing educational problems can be resolved through simply greater attention to traditional ways of improving schooling.

So much for the burly sinners of the field of educational technology. Now that these straw men have been identified and, I hope, thoroughly demolished, I shall turn to the saints. Who might they be? The answer should be obvious. They are you in this audience and others like you who believe that while educational technology has enormous potential as an educational resource, much painstaking and careful thought, planning, development and experimentation needs to accompany its use in education. The work that we saints perform in discovering and developing new uses for educational technology is not made easier by the presence of the burly sinners who on one side are urging us to move faster and spend more money, while on the other are accusing LIN of lowering intellectual standards and wasting money on technological gimmickery.

Interviews in Twelve Developing Countries

The subtitle of my speech is how countries could cooperatively advance the state of the art of educational technology. My remarks relate to the unusual opportunity which I had recently to interview top-level managers, directors and policymakers of educational technology systems, mostly radio and TV in 12 developing countries. These were Brazil, Colombia, El Salvador and Guatemala, Korea, Thailand, Pakistan, Iran, Egypt, Kenya, Tanzania and Ethiopia. The purpose of the visits, four in Latin America, four in Africa, two in the Middle East and two in the Far East, was to identify information needs of directors and determine the extent to which the present supply of information flowing from international sources on educational technology was addressing the problems which they faced. In addition, the investigation, sponsored by the Agency for International Development, was to determine the feasibility of creating international networks of educational technology programs to permit countries to directly assist one another in their work.

All in all, my colleague (Robert Schenck, director of the Communications Center at the University of Texas at Austin and President and Manager of the public television station, WLRN in Austin) conducted a total of 35 interviews lasting from one to three hours. We concentrated, for the most part, on the big national educational radio and TV systems, although we did visit several private ones in Latin America. Some were concerned with formal education, others with nonformal. In nearly all of the 19 programs that we visited in the twelve countries, teacher training was an integral part of the system.

The remainder of my speech relates to some of our observations relating to these visits and to information needs of directors, administrators and policymakers and how these might be met by an organization such as ICET.
I shall start off with my conclusions.

**Conclusion #1—Educational Policy Issues**

In the countries we visited, efforts to develop and establish the new educational technology systems have tended to push into the background, at least temporarily, consideration of major long-range educational policy issues. Nor, by and large, are these policy issues being examined in programs of teacher education.

**Conclusion #2—Unmet Information Needs**

Most administrators, directors and policymakers whom we interviewed believe that the present flow of information regarding educational technology is not sufficiently meeting their needs.

**Conclusion #3—Recommendation for ICET**

International organizations like ICET should give serious consideration to the possibility of helping meet information needs of educational technology projects. By serving as the link between the teacher education components of projects throughout the world, the varied experience that countries are having, both successful and unsuccessful, could be examined, shared and benefited from, on a cooperative basis.

**Educational Policy Issues Which Educators Should Address**

We found only a few examples among the nineteen large programs we visited where educators appeared to be deeply involved in identifying, analyzing and advising on long-term educational policy issues arising out of the establishment of educational technology systems. It may be understandable that during the early stages of the development of new types of resources and programs, primary attention would be given to simply demonstrating that something works. Examination of the larger, long-term issues of how a successful demonstration or pilot project should be expanded and integrated to a larger system usually does not occur until later. Ideally, of course, the initial development of systems and the examination of policy issues should proceed simultaneously. But they seldom do, and unless educators have been involved from the start in a program in helping to determine policy, it is extremely difficult to invite them in at a later date when a program has started to develop its own momentum. Policy decisions too often are then made by others.

Although most countries we visited include courses in audiovisual aids in teacher education programs, very few expose students to the policy issues which, later on, as teachers and administrators they should be helping to address.

Among the many educational policy issues which educational technology involves, I have selected five for brief mention.

1. **The Future of Educational Technology**

Two major trends seem to be operating throughout the world, both having major ramifications for long-range planning of educational technology programs.
On the one hand, more and more people are demanding a greater and more equitable access to educational resources. Since this demand in most developing countries for the foreseeable future, will probably outrun the availability of educational facilities, such mass media as TV, radio, and correspondence courses will be increasingly used to provide resources, on fairly short notice, especially to people living in remote areas and to others without access to good education. In the long run, these media may be switched from formal to non-formal education as teachers eventually are trained.

A second trend is bound to continue. The history of education, at least of most democratic countries, reveals that as nations reach higher levels of socioeconomic development, increased demands are usually placed upon their educational systems for more individualized instruction. This means increased consideration for individual differences, needs, interests and special abilities of students and how these can be met. But under the intense pressure for equalizing access to educational resources, school systems even at less advanced levels of development, will almost surely learn how to motivate students more effectively and with the availability of programmed instruction and other types of self-instructional materials, capitalize upon the individual's capacity for self-instruction. In the long run, I believe the emphasis on educational technology in formal education is bound to switch somewhat from what is mass (TV and radio) to what is individualized (self-instruction materials, film and video-dies libraries, etc.). Educators should be aware of these trends and be prepared to adjust educational programs accordingly.

2. Educational Technology as a Catalyst for Change

The introduction of instructional TV or radio into a system usually produces substantial changes in a relatively short period of time. It can help equalize the quality of instruction between schools in lower and higher socioeconomic areas and between those in urban and rural settings. It tends to undermine older, no longer appropriate traditions of teaching. It can also precipitate large changes in curriculum, teacher education, and administration. One of the difficult problems which must be resolved is how to develop educational technology as part of a system so that the changes which the innovation will invariably produce can be planned for and accommodated. And how can teachers be involved in this planning and to what appropriate degree?

3. Educational Technology and Passivity

One of the serious problems of educational technology, especially instructional radio and TV, is its invitation to the student to be passive. Many non-educators who push the hardest for educational technology on the grounds that reforms in education are needed, may fall into the trap of simply replacing a fact-laden, rote-memory, authoritarian type of instruction which encourages passivity with an electronic fact-laden, rote-memory authoritarian system which equally encourages passivity. The lack of opportunity for students to raise questions and participate in free discussion severely limits the effective-
ness of mass media unless the teacher has the background and the training to pick up where the media leaves off. Experience over the past decade in the developing countries seems to show that a trained classroom teacher is necessary to handle the questions, the heightened interest and the more sophisticated subject matter which the mass media are expected to produce. Up until now much of the teacher training to handle the new media has taken place on an in-service basis, although now that the programs are becoming established, pre-service programs are growing. The problem of overcoming passivity requires continuous study.

4. High Initial Costs of Educational Technology

The establishment of educational technology systems, TV, radio, programmed learning and correspondence courses, represents a heavy initial investment of funds. This requires some kind of assurance ahead of time that the media will be used by the greatest number of people over the longest period of time in order for costs to be minimal. This assurance is extremely difficult for educators to give because of the many unknown factors that may affect school programs in the future. Given the necessity for some type of long-term commitment to the media once it is adapted, how can flexibility be built into a system so that any one part of the system is not permanently locked into its use? This problem, typically ignored, requires continuous examination, especially by teachers.

5. Teacher Opposition to Educational Technology

In virtually every place where educational technology has been developed, at least some teachers have viewed it as a threat, especially those wedded to the status quo and traditional methods of instruction. This opposition, it seems to me, may sometimes be justified because of clumsy authoritarian attempts to force a new technology onto a system. But often it is not, for example where teachers blindly resist all change. Teachers' attitudes towards educational technology are usually determined by the extent to which they perceive the innovation as a threat to their status, tenure, and their customary role of classroom teacher as well as an estimate of the extent to which instruction by media might replace direct contact with students. How can the opposition to technology, both justified and unjustified be handled? Teacher education programs are not by and large dealing with this issue.

The Problems and Information Needs of Directors

The Problems

In our interviews we discussed problems facing managers and directors of educational technology programs. I shall not enumerate them all but mention only those relating to teachers.

One of these problems had to do with the training of teachers involved in educational technology programs. In most countries we visited, directors claimed that the role of the teacher in the classroom had not been fully worked out but was still in an experimental stage. It was not surprising therefore to find some
confusion in how teachers should be trained. Another problem, common to
many directors was knowing how to organize effectively the teams of program-
mers, teachers, administrators and technical staff needed to plan, produce,
distribute and evaluate cost-effective programs. In very few countries
did we learn of any courses in teacher education that would prepare teachers to
play a role on such a team. Another problem, already referred to, was how to
deal with opposition to the use of educational technology, especially by
teachers and in a number of cases, their unions.

The last problem I shall mention relates to directors’ concern that they are
not receiving the right kind of information about technology from outside
sources, especially that relating to programs in other countries. Directors and
their staffs, by and large, feel inundated by the overwhelming flood of reports,
case studies, books, newspaper and magazine articles and research results.
This undifferentiated mass of information, many directors reported, pre-
cluded serious concentration upon any single topic.

In addition, directors felt that most of the literature was written by scholars
with not enough consideration given to policy-oriented information written in
straightforward non-jargon prose.

The Information Needs

What kinds of information do directors in developing countries say they
need? Briefly, they are as follows:

1. They first of all stress the need to discuss problems with fellow directors
   on a personal or semi-confidential level. Much of the work of directors has
   sensitive political ramifications and these they want to share. Directors be-
   lieve that most international conferences which might be expected to provide
   good opportunities for personal contact are usually organized by academic or
   international agency personnel to reflect different concerns.

2. Directors want information that has policy-implications, that is well
   written in non-jargon and that deals not so much with the totality of other coun-
   try’s experience but with specific practices that have been tried.

3. Directors want quick access to the range of experiences that other coun-
   tries have had regarding a particular process, problem or activity. They are less
   interested in total case studies because no situation is transferable but they are
   interested in specific aspects of a case and wish that the literature on educa-
   tional technology would include a quick index to the range of practices taking
   place throughout the world.

4. Directors claim that they are surfeited with success stories of educational
   technology and want more counterbalancing information on failures and lim-
   itations.

5. Directors want more information about their own programs and are gen-
   erally uncertain about how to get reliable, periodic feedback information at a
   reasonable cost.

6. Directors are skeptical about the usefulness of the type of basic research
   which seeks universal generalizations and principles in the field of educational
technology and even about more applied types of studies. They therefore tend to ignore so-called research findings. This gap between researchers and managers, we concluded is greater than most people think.

In summary, directors say they want to exchange information personally with fellow managers. They want access to a range of other countries' experience but these are locked up in such a variety of heterogeneous, undifferentiated reports of widely uneven quantity and quality, that managers feel they and their staffs haven't the time to dig out what might be useful.

What Could ICET Do to Enhance the State of the Art?

The overwhelming conclusion which we draw from our interviews is that for the foreseeable future, new knowledge about how educational technology can be applied will derive from observations of practice in the field rather than from theory, or non-operational types of research.

If you accept this conclusion then ICET, with its established network of teacher educators around the world, might be able to perform a unique role. It would be that of assisting in the linking together of ongoing field programs in such a way that their administrators learn from and help each other and, in the process, advance the state of the art for all of us.

This linking of countries is a difficult order but one that could be undertaken in different ways.

May I share with you a number of suggestions?

1. ICET could first of all identify the top-level teacher educators attached to ongoing educational technology projects in their countries.
2. These would constitute the network representatives from each country.
3. Meetings of the network representatives would precede or follow the annual world assembly of ICET.
4. In order to avoid the superficial sharing of experience, each representative would prepare ahead of time a report of some important problem selected by the membership. But agreements would be reached beforehand on a common format, common data and common analysis procedures so that the reports would have a degree of comparability. This would make it more likely for representatives to learn from one another and also from the sum total of their experiences.
5. A central coordinating office would need to be established to facilitate contacts between countries and prepare for the annual meeting.

In conclusion, I am convinced that there is no shortcut to the development of sound ways to utilize educational technology. Progress will come about by means of the same difficult, concerted, deliberate and planned efforts which educators use to introduce other innovations in education.

If this is true, and my interviews have reinforced this belief, then it makes sense that countries should be learning as much from each other as possible. Nobody wants to waste money in reinventing the wheel. A relatively simple networking procedure for putting countries in touch with each other's experience might significantly enhance the state of the art.
Section Five:
Inservice Education - Asia

Singh’s paper on an overview of in-service education in the Asian region is followed by descriptions of in-service activities submitted by Ministries or Departments of Education in eleven countries: Afghanistan, Bangladesh, Cyprus, Hong Kong, India, Korea, Indonesia, Malaysia, New Zealand, Philippines, and Western Australia.

Although the papers as submitted contained full descriptions of many aspects of in-service education, only those sections dealing with specific activities have been included.

Inservice Education: The Asian Region

RAJA ROY SINGH
Director, UNESCO Regional Office for Education in Asia

Pressures for Change

In all countries of the region, the pressures and compulsions for change are building up with unprecedented rapidity and power. The old epitaph “Here lies the man who tried to hustle the East” is due for replacement by, “Here lies the man who tried to slow down the East.”

The noticeable characteristics of the Asian region are its size, its rich diversity and the complexity which has been etched out by many thousand years of history. No generalization will therefore hold without qualification. The education systems of the countries vary in their structure, their political and administrative framework, their size as well as in their stages of development. There is no single educational model known to contemporary history of education which cannot be found in one country or the other of Asia. To these known models a few more have been added which are uniquely Asian in inspiration.

In spite of this diversity, there is much in common in the problems that the countries face and even more in the nature of the forces and compulsions which underlie these problems. In education, these forces for change are reflected in a movement from the elitist education to mass education. The movement may be held up temporarily here and there but cannot be stopped. It is irreversible; and any policy that ignores it or fails to take account of its implications will be condemned to live from one crisis to another.

Speaking about size, here are a few statistics in aggregative terms which are suggestive of the magnitude of some of the problems. There are in the Asian
region 4.3 million teachers. The countries would need about 3.2 million more
teachers within the next ten years or so if they wish to provide to every child
access to the first level of education. Even to maintain educational facilities at
the existing none-too-adequate level, they require over two hundred and fifty
thousand teachers additionally every year. Not all teachers in the existing
teaching force are "qualified" in terms of the minimum qualifying standards
set by the respective governments. The proportion of such persons varies
greatly from one country to another but for the region as a whole, it would
not be far off the mark to estimate one and a half million teachers in this cate-
gory.

The developing countries of Asia have abundant human resources but they
are short of other resources, particularly capital and technology. Quite obvi-
osely therefore strategies of development would need to rely heavily on the
productive use of resources which are in good supply. This is particularly true
for education. Technologies in education, even if they had proved themselves
(which is by no means the case) are unlikely to replace the human resources
in the foreseeable future, however seductive the promises of their proponents.

In light of the pressures for change and the magnitude of the problems in-
volved, education and inservice education of teachers is for the Asian coun-
tries a fundamental and vital matter.

While the pre-service preparation of prospective teachers has been a part
of the education systems in Asia since their early beginnings, in-service edu-
cation is of relatively recent origin. The increased emphasis that in-service
education is now beginning to receive is to be found in conjunction with the
accelerating pace of change in the schools and, as I indicate later on, with the
questionings about the school system and its purposes. More and more, in-
service education is coming to be recognized as a critically important element
in any strategy of educational reform and renovation. To quote the Third Re-

gional Conference of Ministers of Education of Asian Member States which
was convened by UNESCO at Singapore in 1971,

"As long as education is needed and knowledge about education and
children continue to increase, the teacher has always something new to
learn. Learning to teach is a life-long pursuit and a teacher's education
is a continuing education: otherwise it is no more than certification."

There are broadly three stages in which inservice education has evolved in
the developing countries of Asia in the last two decades or so. *Development of Inservice Education: Stage 1*

Inservice education in the first stage is intended primarily to take up the
slack in the education system in which the output of that system is not enough
to ensure an adequate supply of teachers to maintain it. Teachers with barely
enough qualifications are recruited. These teachers continue in service even
after the education system has developed sufficiently to be able to meet its
teacher requirements. Inservice education at this stage takes the form of re-
medial programmes for underqualified teachers and is limited to general academic education, more particularly subject matter content. Typically, in this stage, the inspector or supervisor functions also as an itinerant teacher educator, giving demonstration lessons, correcting the lesson plans etc.; in short, the teacher is at the receiving end, passively taking in what he or she will later reproduce in the classroom. This method, though apparently crude, looks very much like a pristine model of the contemporary more sophisticated programmed packages for teachers—if not in intent at least in the result. In the Asian countries, very broadly speaking, this was the stage of inservice education in the decades of the '40s and '50s. By quite extensive efforts, the qualifications of hundreds of thousands of teachers were upgraded. However, it must be recognized that these were programmes of inservice education in a limited sense. They provided by another path the kind of education which the education system and training system purveyed in its normal functioning.

Development of Inservice Education: Stage II

The second stage is entered when the education system is sufficiently developed to be able to meet its own manpower demands. The qualification standards for prospective teachers are prescribed and progressively raised, both in terms of the requirements of general education and of professional training. Again very broadly speaking, this second stage occurred in the Asian countries in the decade of the '60s. A considerable variety of inservice education programmes developed along with diverse institutional forms; there was also an emerging recognition of the wider dimensions of inservice education as continuing education. The dominant form of inservice education was, and continues to be, however, related to acquisition of higher degrees or certificates by in-service teachers. Its parallel in the structure of pre-service education is the upgrading of teacher training institutions and lengthening of the pre-service period of preparation. Thus, a primary teacher institution becomes a junior college; a one or two year preservice program is lengthened to four years; secondary teacher training may be prolonged to five years; colleges of education may even become universities. It is difficult to say how much of this was the result of some inherent propensities in any education system and how much of it in the developing countries of Asia was due to the "demonstration effect" of developed systems. This drive towards prestige systems dominated much of inservice education programmes in the '60s.

These degree-linked programmes undoubtedly infused in the teaching force a larger number of persons with higher academic qualifications but they also widened the disparities in the distribution of teaching resources between urban and rural areas, and between first level and second level of education. The urban and academic bias of the education system tended to be reinforced. Does the experience suggest that inservice education may have only limited capacity to generate change if it is linked to an existing reward conferring and prestige system?

An important, and significant development in inservice education arose in
the '60s from a curriculum movement, beginning with science and mathematics but later spreading to other subjects. The first generation of curriculum development programmes in Asian countries, as elsewhere, relied almost exclusively on the knowledge and skills of subject specialists; their products were then disseminated in the school system and teachers were prepared for making use of them through inservice education programmes. If these first generation curriculum development programmes are seen, in retrospect, to have fallen short of the expectations they had aroused, they nonetheless contributed lessons of experience which may be particularly valuable to our developing countries in the new phase that is now beginning to unfold in the current decade. In all countries, in Asia in which new curriculum development programmes were initiated, inservice education activities have been undertaken on a larger scale, more systematically and have involved more teachers than had happened ever before. In some countries new institutional structures have been established. Another important gain was that the link with the prestige degree/certificate system was bypassed and the classroom was brought back into focus in inservice activities. It is however somewhat puzzling to reflect that teacher training institutions, with a few outstanding exceptions (e.g. Singapore), have, by and large, played only a marginal role in initiating or furthering these curriculum development movements which have marked the beginning of new directions in educational development in many of the Asian countries.

The experience of curriculum development programmes in a number of countries in the region has underlined some important lessons. First, while inservice education is critically important in implementing change, its methods and modalities themselves have to be re-thought in order to make it an effective change agent. It is possible that every change which is of a fundamental character and not merely a fashion of the moment calls for its own method of inservice education. Second, the curriculum development programmes demonstrated—mostly by negative example—that creative classroom experiences (which degree-linked inservice education tends to ignore) are essential materials both in the development of programmes and in inservice training. Close and active participation of teachers should therefore be a part of programme development strategy. Development and inservice education become inseparable processes. An effective inservice education programme does not stand by itself; it is an integral part of a total process by which a change is conceived and brought about. And, further, there has to be a compelling and overarching purpose by which the whole process is guided.

I have dealt with the curriculum development programmes at some length because they provided for the first time, in the experience of our countries, a framework for planned change.

*Development of Inservice Education: Stage III*

I believe that our developing countries in Asia are now at the threshold of a new phase of development. They may approach it in different ways according
to their national perceptions and at a different pace but the common direction is fairly well discernible. Many countries in Asia are re-thinking their education, in order to make it relevant to their problems. The phase of “demonstration effects” is over. It is now the stage of educational reform and more specifically education as development. The education of teachers including inservice education is therefore being reexamined in the light of concerns which are implied in questions such as, education for what purposes, for whom and of what kind?

The concept which linked development narrowly to single-minded devotion to increasing the GNP is being superseded by the tide of events. Increasingly, national development policies are being conceived in terms of social action to promote distributive justice, to narrow inequalities, to deal with questions of deprivation and poverty, and to strengthen social and national cohesion. These are issues which can no longer be postponed.

Education for development goes beyond the earlier preoccupation with education’s role in preparing skilled manpower. It becomes an integral part of social action, linked to life and human issues. It is as much concerned with children who are in school as with children who are out of school (and in Asia, even now, there are more children who are out of school than in school); it is responsible equally for those who are rejected by the school system (and in Asia 40 per cent of 7-9 year olds fail to reach even grade 5); it is not an artificially created world sufficient unto itself, insulating the privileged few from participating in or exercising social responsibility; it is an integral part of the world of work and of the condition of man.

The teacher has multiple roles in education for development. His preparation for these various roles involves a process of continuing learning, unfettered by distinctions between pre-service and inservice or between personal growth and professional growth.

There are few models tested by experience which can give us the answers. The starting point however has been provided by earlier experiences. It is not the pursuit of technical or pedagogical proficiency by itself, important though it is, that is likely to create the development milieu for education. The essential prior condition is the creation of social consciousness, a commitment, even a passionate sense of social responsibility, which gives relevance to the pursuit of technical proficiency.

In the developing countries of Asia, this new phase is underway. It is opening up more questions than answers: can we afford a prestige system built for its own sake, with more and more specialization and solving fewer and fewer problems? Are we preparing teachers for elite education even while mass education is irreversibly on us? For how long should we keep, or can afford to keep the prospective teacher segregated in a training institution away from teaching-learning experiences in the classroom and in the community? What is the worth of training that prepares for a single role and for a single milieu when the tasks are multiple and the milieu diverse? Are we recycling adequately into our education programmes the insights and experiences which are cre-
atively generated in the classroom in the working places, and in the community?

Questions such as these, and many others, are being explored in new indigenous and innovative experiences in many countries of the region: the preparation of teachers for rural areas in Iran; integrated rural development in Pakistan; training of teachers in the classrooms in Nepal; integration of work and learning in India, Sri Lanka, Burma; integration of technical and general education in Singapore; development of integrated learning systems in Indonesia; social action laboratories in the Philippines; adult education in Thailand and many others.

These initiatives are evidence of a new impulse at work and as it spreads out in a broadening stream, we shall surely see education coming into its own, to revivify and to recreate. Jerome Brunner's dictum has particular aptness to the context of our developing countries, that "if the past decade has taught us anything, it is that educational reform confined only to the schools and not to the society at large is doomed to eventual triviality."

Reference

Inservice Education: Afghanistan

Ministry of Education

In-Service Education for Teachers

This was the largest group of school personnel for which the in-service training activities were organized in the country. The in-service training included both types of education for teachers, i.e., (1) academic education for upgrading underqualified teachers and, (2) professional education. The figures compiled in December 1973 by the UNESCO National Programme of Educational Training indicate that 753 out of a total of about 4,000 under-qualified primary school teachers were attending in-service classes for upgrading their academic qualifications. This group consisted of 245 teachers in grade X, 355 in grade XI and 153 in grade XII. On the other hand, the number of in-service teachers attending the post-secondary one-year teacher training course in various teachers colleges was 1,379. Thus, a total number of 2,132 primary school teachers (out of whom 574 were women) were enrolled in the in-service classes in the country. If we also add 423 middle school teachers (including 191 women teachers) attending the grade XIV in-service class, the total number of teachers enrolled in the in-service classes in the country in December 1973 becomes 2,555. In other words, about 15% of the total teaching force in both the primary and middle schools (17,383) was following regular in-service classes, while the total figure for the primary and middle school teachers attending in-service classes in December 1972 was only 493. This shows an increase of more than five times in one year in the number of primary and middle school teachers attending the in-service classes.

It may be pointed out that the in-service classes are conducted in the training colleges by their regular staff members. Daily (half-day) attendance is made possible by a double shift system in schools; but this facility is available only to those students who live in the immediate neighborhood of the training colleges, which due to geographical difficulties serve at present only 0.3% of the total area of Afghanistan. This assumes that in-service students travel no more than 8 kilometers to attend classes.

In-Service Education for School Supervisors

At present there are about 293 school supervisors in Afghanistan. Out of these, about 230 are working in the provinces, 35 in the central Department of Inspection and Supervision and 28 in the Department of Secondary Education. In-service education courses have been and are being organized for all three categories of these supervisors. A brief description of these courses is as follows:

1. Courses for Provincial Supervisors

In the past 14 months, three 2½-month national training courses on school supervision have been organized at Kabul for the provincial supervisors. The
courses aim at teaching specialised professional skills and techniques of effective school supervision. During these courses, intensive training is given in fundamental professional education, effective techniques of school supervision and in educational leadership. About 80 local and foreign teachers and resource persons are involved in teaching each of these 2½-month training courses.

Under this series of courses on school supervision, a total of 100 (44%) out of 230 provincial supervisors have been trained and it is expected that the remaining supervisors will be trained in the three other courses of this series.

2. Course for the Supervisors of the Department of Secondary Education

In 1973, a six-month weekly in-service training course was organized for the supervisors of the Department of Secondary Education who are responsible for the improvement of instruction in secondary schools. It was the senior-most group of supervisors for whom an in-service training course was organized. Effective techniques of school supervision and educational leadership were discussed during the course.

3. Course for the Central Supervisors

This year another important in-service training course was organized for the central school supervisors who are working in the Department of Inspection and Supervision of the Ministry of Education. These central supervisors are responsible for guiding the work of the provincial school supervisors and thus they play a very important role in the qualitative improvement of school education. The two-week training course held in Kabul was attended by 21 central supervisors.

Thus, in the past fourteen months a total number of 150 school supervisors belonging to the Departments of Secondary Education, Inspection and Supervision and Provincial Directorates of Education all over the country received intensive in-service training.

In view of the acute shortage of suitable material on school supervision in the local language, a 630-page “Handbook on School Supervision” was also prepared in 1973 in the Dari language. This book is proving exceedingly useful for the in-service education of school supervisors.

In-Service Education for School Administrators

For the in-service education of school principals, two part-time courses of two months duration each, were conducted at Kabul in 1973. The number of participants in both the courses was 60. In addition, three one-week seminars on school administration were organized in three provinces, i.e., at Nangarhar, Balkh and Kandahar during the same year. They were attended by a total of 105 school principals.

In-Service Education for Librarians

During the middle of 1972, a seven-week in-service training course was organized for 13 librarians of the training colleges and the Ministry of Education.
As a follow-up in 1973, arrangements were made to give on-the-spot in-service training to the librarians of the ten training colleges in the country. The duration of this training programme was about one week in each case.

**In-Service Education Post Graduate Course for Teacher Educators**

This is a regular one year in-service education post-graduate diploma course held at the Kabul Academy for Teacher Educators.

The course is attended mostly by the lecturers of the training colleges and other educators. In 1973, the tenth course of this series was attended by twenty-four students. The course is conducted by a national and international staff.

**In-Service Education for Afghan Educators in Beirut**

During the past eight months, thirty-six Afghan educators were sent in two groups to the UNRWA Institute of Education, Beirut for training in multimedia techniques of in-service education. For each group, the training programme lasted for one month. An effort is now being made to utilize the services of these educators for the expansion of facilities for the in-service education of school personnel in the country.

**In-Service Education for Science Supervisors and Teachers**

Under the guidance of the Science Centre of the Ministry of Education, twenty-eight subject supervisors are employed in eighteen provinces for the improvement of the teaching of science in middle schools and lycees. The main function of all of these supervisors is to help the teachers for the qualitative improvement of the teaching of science, especially through their in-service education.

In the past fourteen months, a total of thirteen seminars, ranging from one to two weeks’ duration each, were conducted in the provinces for the in-service education of teachers. The total number of participants was 467. In addition, two courses were held in the City of Kabul during the same period. One was a two-week in-service course which was attended by twenty-four supervisors and the other was a five-week training course in which twenty-three selected lyceee teachers of science and supervisors participated.
Inservice Education: Bangladesh

Ministry of Education

The Ministry of Education

The Ministry of Education, though not directly concerned with initiating in-service teacher education programmes, is the primary agency for providing necessary funds for the running of different in-service teacher training institutes like the Education Extension Centre and refresher course training centres. However, sometimes in-service training courses are organized under the joint sponsorship of the Ministry and some suitable foreign agency. The teachers' workshop programme which was initiated in 1957 in Dacca and Chittagong to help the teachers acquire skill and understanding about various aspects of education, was jointly sponsored by the Education Directorate of the Ministry of Education. In cooperation with the Ministry of Education, the British Council organized a number of short in-service training courses for teachers of English in secondary schools and colleges. These courses aimed at the improvement of the teaching of English as a foreign language. In both courses, specialists from abroad were involved in full-time consultative capacity. UNICEF, in cooperation with the Education Directorate of the Ministry of Education started organizing in-service training programmes for teachers. Quite a few courses on science, commerce and home economics were held under this arrangement at Bangladesh Education Extension Centre for secondary school teachers. The major objective of these courses was to acquaint the teachers with the ways of utilizing UNICEF training equipment supplied free of cost in a large number of secondary schools of Bangladesh. At present, short courses are being organized for the superintendent and instructors of primary training institutes with a view to training them for writing teachers' manuals for the primary school teachers.

The Universities

The Universities of Dacca and Rajshahi in collaboration with IASTT (Institute of Advanced Science Teaching and Technology), a semi-government institution of the Ministry of Education, organize regular summer science institutes for college teachers. The main objective of these institutes is to develop an awareness of the advancement of science and technology in recent years. The Institute of Education and Research, Dacca University, also organizes courses for instructors of primary training institutes.

Teacher-Training Colleges

Several short in-service training courses in language teaching, science and geography were organized at the Dacca Teachers' Training College under the joint sponsorship of the Secondary Education Board during 1956-59. The main purpose of such courses was to provide the participants with some knowledge of subject matter along with modern teaching methods in selected
fields. The courses lasted for 2 to 3 months. In-service courses on teacher education of a similar nature were also organized under the joint auspices of Mymensingh Teachers' Training College and are mainly concerned with pre-service education of teachers although the teachers of this college are often associated with the in-service training courses organized by Bangladesh Education Extension Centre.

This year (1973) arrangements are under way to hold short in-service training courses in science, mathematics and educational administration by Bangladesh Education Extension Centre at Jessore, Rajshahi and Chittagong in cooperation with Jessore College of Education, Rajshahi Teachers' Training College and Chittagong College of Education, respectively.

**Bangladesh Education Extension Centre**

The Education Extension Centre established in 1959, was charged with the responsibility of improving the teaching techniques in all secondary schools of the province as well as of providing teachers, trained in teaching methodology, for introducing scientific, technical and vocational subjects. In addition, the Centre organized training courses in other school subjects including Bengali, English, mathematics, arts and crafts, social studies, geography, history, library science etc.

In-service training programmes organized by the Education Extension Centre have been, in general, of three types: (1) short courses ranging from one week to ten weeks, (2) long courses of one year in the vocational subjects and, (3) seminars and conferences for the heads of educational institutions and other educational officers. So far the Education Extension Centre has organized 67 study conferences for school administrators and 446 short training courses for teachers of different school subjects. It also has arranged 15 long courses for teachers of agricultural subjects, commercial subjects and industrial arts.

The study conferences and short training courses are usually of two to eight weeks' duration, and the long courses extend over one academic year. A total of 2,439 school administrators have participated in the study conferences and 9,252 subject teachers in the short training courses. The long courses have been successfully completed by 129 teachers of agricultural subjects, 32 teachers of commercial subjects and 8 teachers of industrial arts.

**Other Educational Agencies**

Educational agencies, other than the universities and teachers' training colleges also sometimes undertake in-service teacher education programmes in cooperation with the Bangladesh Education Extension Centre. These are as follows:

1. **National Development Training Institute**

   These institutions, primarily designed to offer in-service education to the personnel of the Department of Agriculture, also play an important role for
the in-service training of vocational agriculture teachers. The training period varies from two to nine months. However, as the required facilities are now available at Bangladesh Education Extension Centre, these courses are now held regularly at the Centre.

2. Polytechnique Institute, Dacca
The in-service training of secondary school teachers of industrial arts are held at this institution.

3. Government College of Commerce, Chittagong
In conjunction with Bangladesh Education Extension Centre, this educational institution offers courses for preparation of teachers of commercial subjects of one-year duration.

4. Board of Intermediate and Secondary Education, Dacca
This organization organizes short in-service teacher education programmes at Bangladesh Education Extension Centre on “Principles of Evaluation.”

5. Bangladesh School Textbook Board
With a view to training teachers for writing teachers’ manuals at the secondary level, this organization offers in-service training courses in cooperation with the Bangladesh Education Extension Centre.

6. Others
The following educational agencies are also engaged in offering in-service teacher training programmes in addition to their normal programmes:

i. Bangladesh Academy for Rural Development, Comilla
The Academy organizes short-training courses for government officers as well as for college and secondary school youths, teachers in agriculture and others associated with rural development projects.

ii. Audio-Visual Education Centre
This Centre organizes training courses for school teachers on the uses of audio-visual aids in teaching.

iii. Refresher Course Training Centre
As mentioned earlier, there are nine Refresher Course Training Centres in different parts of the country to render in-service education to primary school teachers, particularly to those who are under-matriculated as well as untrained.
Inservice Education: Cyprus

Ministry of Education

Since the educational system of Cyprus continues to be centralized, the role of the Ministry of Education in the in-service training of teachers is a main one. The Ministry, especially during recent years, tried to promote the quality of teachers through in-service training courses of various types and length.

Guidance and supervision of teachers are offered by the members of the inspectorate. The inspectors visit schools very often; they observe lessons and they exchange views on educational matters with teachers and heads. The inspectors are also highly involved in conducting seminars especially on problems relating to theory and practice of teaching.

One teaching period per week is given for staff meetings, most of which are devoted to the study of educational problems. At these meetings teachers may present their findings from an experimental approach or method which they have tried, or from a personal study they have made.

The Ministry of Education offers to every teacher at any school in the island the services of an educational library, which is a combined project of the Government and the Primary Teachers' Cooperative Savings Bank.

In an effort to keep the teachers abreast of modern thinking on educational matters and in order to encourage dialogue between all sectors of education, the Ministry of Education publishes two periodicals which are distributed free of charge to all schools and teachers on the island.

Efforts in in-service training of teachers are considerably reinforced by foreign experts who are invited very often to conduct seminars in Cyprus.

For a further and more systematic training of practicing teachers a Pedagogical Institute has been recently established. As university education is not at present available in Cyprus, institutions of higher education cannot play any role in the in-service training programmes. The Teachers' Training College and the recently established Institute of Education are the only institutions which play a certain role in creating interest for the in-service training of teachers. Through a graduates' association, the Teachers' Training College keeps in touch with its previous students and tries through various activities to foster their educational, cultural and social endeavour and interest.

Several non-governmental educational agencies have offered, for a number of years, courses, seminars or publications relating to the in-service training of teachers. The Cyprus Pedagogical Research Association publishes a bi-annual periodical available to its members who are mostly educationists. During the last few years the teachers themselves organized out of their own initiative a number of teachers' centres where they discuss educational problems in general. Some of these centres publish their own bulletins. Over and above the previously mentioned arrangements, a system of scholarships annually awarded to promising Cypriot teachers by friendly governments, other foreign agencies, and the Government of Cyprus has been functioning since independence quite satisfactorily.
Inservice Education: Hong Kong

Education Department

The Education Department of the Hong Kong Government

The Education Department of the Hong Kong Government is the sole authority responsible for the initial training of non-graduate teachers. Such training is available on a full-time or part-time in-service basis. The Department also conducts specialist courses of training for non-graduate teachers in the fields of music, art, mathematics and physical education. Similar courses in other subject areas are being considered for the future. In addition, short-term programmes are arranged under Departmental auspices for practicing teachers, both graduates and non-graduates.

Initial teacher training and specialist training programmes are conducted at the three Colleges of Education, and the shorter courses for practising teachers are organized by the Advisory Inspectorate and the Educational Television Division of the Education Department.

The two-year, part-time in-service courses of training for teachers lead to the award of a certificate of Qualified Teacher status in Hong Kong. One-year, full-time specialist teacher training is rewarded by incremental credit for qualified teachers employed in Government and Government-aided schools.

The Universities

Both the Department of Education of the University of Hong Kong and the School of Education at the Chinese University offer two-year, part-time in-service teacher training programmes for university graduates. These courses lead to the award of the Certificate in Education, and possession of this professional qualification is rewarded by incremental credit for those teachers employed in Government or Government-aided schools.

The universities also organise a large number of extramural courses in a variety of subjects and while most of these are not aimed specifically at teachers, many of those attending are, in fact, teachers.

Other Agencies

Teacher education is not formally offered by other agencies in Hong Kong though some private educational bodies (e.g., religious foundations) offer a modicum of training to members of the teaching staff on an informal and insular basis. No recognition is afforded such programmes.

The Advisory Inspectorate, through its Kindergarten Section, operates a two-year, part-time in-service course of training for kindergarten teachers. About 50 teachers are enrolled in each course which consists of formal lectures and supervision of teachers in their own kindergartens. Successful students are awarded a certificate granting them Qualified Kindergarten Teacher status in Hong Kong.
Also under the auspices of the Advisory Inspectorate is the provision of opportunities for practising trained and untrained teachers to meet together with the object of discussing a variety of educational matters such as curriculum development, examination systems, improvements in teaching methods in particular subject areas and technological developments in education. Any recommendations made by teachers at seminars and conferences are taken up seriously by the Advisory Inspectorate and Colleges of Education and, of course, the teachers themselves benefit from the exchange of views made possible at these meetings.

The Advisory Inspectorate also conducts formal courses of instruction for teachers during the school vacations, particularly teachers taking part or considering taking part in new curriculum projects.

Something of the teacher centre concept is reflected in certain functions of the Advisory Inspectorate. The Cultural Crafts Centre organises courses in the teaching and practice of art, crafts, woodwork and metalwork, mounts displays of local and overseas work, and provides a meeting place for teachers where they can discuss their work and seek guidance. The Visual Aids Centre runs courses on the value, manipulation and production of audiovisual teaching aids. It also provides a leading service to teachers from its considerable library of audiovisual materials, and officers in the Centre are always available for advice on equipment either at the Centre or in the schools.

The Advisory Inspectorate also embraces an English Language Teaching Centre (ELTC) and a newly-formed Chinese Language Teaching Centre. The main function of the ELTC is to give assistance in the teaching of English as a second language to both trained and untrained teachers. Guidance is given to teachers in the most effective methods of teaching the English Language in local primary and secondary schools. The Centre has a considerable supply of taped materials for use in primary and secondary schools and a free dubbing service is provided to all schools wanting copies of the taped material produced by the Centre. Both the Hong Kong and Kowloon units have a special library of books on language teaching and linguistics for teachers to consult, and the Hong Kong unit has its own language laboratory.

The ELTC which opened in 1965 is now well-established and known to teachers of English in Hong Kong. In addition to its primary school refresher courses and secondary school workshops on the teaching of dictation and oral reading, the Centre runs seminars and courses throughout the summer holidays for middle school and secondary school teachers. So far, 1,709 teachers from primary schools and 787 teachers from secondary schools have attended these courses (the Centre did not expand to cater for the secondary level until 1971), and 11,546 sets of ELT tapes have been issued to 599 schools. In 1973 the ELTC, in collaboration with the Government Information Service, produced an English Language Teaching Film showing a Chinese Teacher of English using the oral-structural approach with her own class in a government primary school. 458 head teachers have been shown this film which has been well-received overseas.
The Chinese Language Teaching Centre will be able to offer a similar service to teachers of Chinese.

In-service training of teachers is provided by the Educational Television Service of the Education Department in three forms:

(a) Each ETV lesson is a teaching model devised by subject specialists and is accompanied by detailed notes for teachers. Teachers in classrooms, particularly untrained teachers, can thus learn from lessons they see on television.

(b) Each summer intensive seminars are held at the ETV Centre, in which teachers receive further instruction in the utilisation of ETV.

(c) ETV production teams visit schools weekly to ensure proper utilisation of ETV and use these visits to discuss ETV methodology with teachers. Detailed questionnaires, completed by teachers in classrooms, reinforce the in-service element of ETV programming.

The ETV Centre is open for teachers' visits throughout the year, and individual queries are dealt with on a personal basis.

By far the most extensive programme of in-service teacher education is that offered by the Colleges of Education. In Hong Kong a Permit to employ an Unregistered Teacher may be issued to Government-aided or private school authorities for a person with appropriate academic qualifications but no professional training. After a period of teaching experience, these Permitted Teachers are eligible to apply for part-time in-service courses of training leading to the award of a certificate conferring the status of "Qualified Teacher" in Hong Kong.
Inservice Education: India

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There are a number of agencies involved in the in-service education of teachers. The chief among them are the following:

High Schools

Most of the good schools have their own built-in programs of in-service education which are planned every year along with the program of teaching for the pupils. They include seminars on curricular topics, staff discussions on educational problems, demonstration lessons, and visits to other good schools.

Teachers Associations

Teachers associations at the primary and secondary level arrange discussions on curricular topics from time to time particularly when a new syllabus is introduced. Although most of our teachers associations engage themselves in the betterment of their emoluments and perquisites, they do indulge in curricular discussions many times. Besides, there are subject associations such as science teachers associations, mathematics teachers associations, and language teachers associations which devote themselves entirely to academic work. The Gujarat Science Teachers Association has promoted science clubs in different schools and it organizes a state-level science fair in different parts of the State every year which is attended by about 200 schools.

State Institute of Education

The State Institute of Education created by the Department of Education in each State has been chiefly responsible for the in-service education programmes for primary school teachers. Similarly, programmes for secondary education have also been undertaken by these institutes from time to time. It has thus become more or less the academic unit of the Department of Education. One of its main branches is the science unit which has done wonderful work preparing teachers for the new syllabuses in mathematics and science. Similarly the Vocational Guidance Institute of some of the States, train teachers for educational and vocational guidance. They also help schools in their guidance programmes.

NCERT and Regional Colleges of Education

The National Council of Educational Research and Training in New Delhi was first established as the All India Council for Secondary Education in 1955. It has several departments like Foundations of Education, Science Education, Teacher Education Techniques, etc. It has its big campus in New Delhi and it runs a number of courses for in-service education of secondary school teachers as well as teacher educators. It is the parent body of extension work and in-
service education throughout India. It established recently some regional administrative units also. Allied with it are the four Regional Colleges of Education situated in four different parts of India, namely in Ajmer, Bhopal, Bhubaneswar and Mysore. These four Regional Colleges have mainly engaged themselves to train teachers of vocational subjects like agriculture, commerce, fine arts, etc.

They also run correspondence courses and vacation courses.

Extension Centres of Teachers Colleges

Extension Centres provide in-service education to secondary school teachers and school administrators through their various services like library service, audio-visual service, publications, evening and week-end courses, seminar reading programmes, examination reforms programmes, experimental projects and workshops, seminars and conferences in different subjects. More and more teachers colleges are given extension centres by the NCERT. At present in every State about ten teachers colleges have their extension centre. In addition some of the colleges which do not have a regular extension centre also do some in-service education work when their staff go to different schools for block teaching programmes. Seminar readings programme is also a popular one in which school teachers contribute papers on different subjects and the best papers are selected for prizes at the national level. Some of these papers have been published by the NCERT.

Voluntary Organizations

The Rotary Club, the Lions Club and the Junior Chamber have always taken interest in education and so they organize competitions for teachers on academic subjects, provide guidance services and also organize exhibitions of the works done as hobbies in different schools.

Educational Centres of Foreign Embassies

Foreign embassies have also contributed their mite to in-service education of teachers through their various educational programmes. The USIS and the British Council have done noteworthy work in acquainting teachers with new innovations in teaching by organizing library services, films and discussion groups. Several other foreign embassies also have their cultural officers help schools in providing information about their own counties and thus acquainting teachers with innovations.
Inservice Education: Korea

Ministry of Education

An overall plan for in-service education is formulated by the Ministry of Education through an analysis of the nation's present educational needs and conditions. In conformity to the overall plan, the 11 city and provincial boards of education draw up their own plan suitable to their respective regional specialties, selecting the date, the place, and the participants to whom the in-service education will be offered. Primary school teacher training institutes attached to junior colleges of education, which directly manage the in-service education programs, formulate last-stage plans in detail and put them into effect, such as the organization of curricula, the selection of lecturers, etc.

The main contents of in-service education are as follows:

**General Training** is for the purpose of upgrading basic preparedness of teachers. This is offered under the sponsorship of the Central Education Research Institute and education research institutes attached to the city and provincial boards of education. The Central Education Research Institute attempts to promote a sense of mission among teachers and organizes programs to improve managerial ability of the teaching staff. In 1974, 12,600 teachers participated. City and provincial boards of education as well as other various institutes formulate their own plans to meet their regional requirements.

**Qualifying Training** is for the purpose of obtaining the higher-class certificates. This is offered under the sponsorship of the Education Administration Research Institute attached to the College of Education, Seoul National University, and primary and secondary teacher training institutes attached to junior and colleges of education. For example in 1974:

- 300 principals at the primary school level and 185 at the secondary school level received training in education administration at the Research Institute attached to the College of Education, Seoul National University.
- 310 vice-principals at the primary school level received training at seven institutes attached to junior teachers colleges for primary school teachers.
- 145 vice-principals at the secondary school level received training at four institutes attached to colleges of education for secondary school teachers.
- 9990 first- and second-class regular teachers at the primary school level received training at 16 training institutes attached to colleges of education for secondary school teachers.
- 8570 first- and second-class regular teachers at the secondary school level received training at 10 training institutes attached to colleges of education for secondary school teachers.
Inservice Education: Indonesia

Ministry of Education and Culture

The Department of Education and Culture is the Agency which has the responsibility to manage and supervise general, vocational, and technical education from the elementary through the higher education levels, including in-service teacher training.

Several projects at the national and provincial level have been established to carry out upgrading courses for teachers and education personnel.

There are eight Institutes for Education and Teacher Training and a number of University Colleges of Education and Teacher Training Colleges which are regularly carrying out in-service teacher training program. There are also credit-oriented programs in the institutes to give certificates for teachers who attend and pass the special examinations.

There is a Science Teaching Center and Teaching Aids Centre at Bandung for In-Service Training, founded in 1952.

Faculty members from Universities and the Institutes for Education and Teacher Training are involved in programming and implementing the in-service teacher training program, administered by Ministry offices.

The representatives of the Minister of Education and Culture at the provincial level with the cooperation of the local government also provide irregular in-service training programs. The operation of these in-service programs depends upon the availability of funds.

The objective of this training is to disseminate further upgrading courses at the national level in the form of discussions, lectures, etc.

In-service teacher training programs are also created by Teacher Training Colleges by proposal from local education offices or by their own initiative.
Inservice Education: Malaysia

Ministry of Education

Basic Three-year Courses for Temporary Untrained Teachers

As a result of a teacher shortage, especially during the 1950s and 1960s, teachers who lack basic professional training have been employed on a temporary basis mainly in national, Chinese-medium or Tamil-medium primary schools. To improve the efficiency of these teachers, basic three-year courses are offered during school vacations for candidates who have a minimum qualification of the Malaysian Certificate of Education or Sijil Pelajaran Malaysia with three credits including Bahasa Malaysia, and who have at least two years' teaching experience. The medium of instruction is Bahasa Malaysia, while Chinese and Tamil are taught as subjects and used as media in practical teaching.

Three-year vacation courses of a similar nature are extended to Islamic religious teachers who have not received basic professional education.

Courses in Bahasa Malaysia as a Medium of Instruction and English as a Second Language

The national education policy is geared towards the creation of a national school system with Bahasa Malaysia as the medium of instruction and English as an important second language. In accordance with this policy, the medium of instruction in former English schools is being changed in gradual stages to Bahasa Malaysia, beginning from 1970.

To increase the proficiency of non-Malay teachers to teach in the medium of Bahasa Malaysia, courses for these teachers are run, covering three months during term time at the Language Institute, Kuala Lumpur, and the Kota Bahru Training College, Kelantan, or eight weeks during school vacations at various centres. The training programme includes the use of the spoken language through forums, debates and discussions, and exposure to reading and comprehension, grammar, essay-writing and Jawi (the Arabic script). In addition, the teachers are required to handle classes in schools using Bahasa Malaysia as the medium of instruction. Serious attempts are made by course instructors to employ proven techniques in language teaching, for example the use of the language laboratory in the Language Institute, and the incorporation of features in the Highly Intensive Language Teaching (HILT) techniques used by the American Peace Corps.

The Language Institute also offers three-month courses in the teaching of English as a second language for teachers from national primary and secondary schools and for key personnel who will in turn conduct similar courses at state and district levels.

Supplementary One-Year Courses for Trained Teachers

The Supplementary Course is intended for trained teachers who after five
INSERVICE EDUCATION: Malaysia

years of experience in schools return for a one-year course of specialization to prepare themselves to be specialist teachers of various subjects in primary, lower-secondary and upper-secondary schools. Emphasis is given to subjects which are not taught in local universities and the curricula include academic enrichment and practical application as well as teaching principles and methodologies. Currently, two Teacher Training Colleges provide supplementary courses, namely:

(i) the Specialist Teachers' Training Institute, Kuala Lumpur, which offers courses in Physical Education, Art Education, Music Education, Pre-School Education, Education of Blind Children and Education of Deaf Children.

(ii) the Malayan Teachers' College, Johore Bahru, which provides a course in Home Science. Plans are now underway to introduce courses in School Librarianship and Health and Nutrition Education.

Short Vacation and Weekend Courses for Teachers

A large portion of the Ministry's in-service education programme is devoted to short vacation and weekend courses ranging from one to four weeks in various subject areas. These courses, held in various college or school centres are aimed at acquainting practising teachers with the latest developments in teaching strategies, methods and techniques, and serve also as an induction to teachers on new curricular materials. Examples of such courses are Modern Mathematics, Integrated Science and Health Education organised by the Schools Division of the Ministry, and Multiple Class Teaching, and the Teaching of Art and Crafts organised by the Inspectorate of Schools.

Courses for Teacher Educators

An area that has been receiving increasing attention is the in-service education of teacher educators, particularly lecturers in Teacher Training Colleges. The Faculty of Education, University of Malaya, conducts part-time courses leading to the Master in Education for graduate teachers, and many college lecturers, especially in the Kuala Lumpur region, avail themselves of these courses. The Science University of Malaysia, Penang has recently introduced off-campus undergraduate courses leading to various first degrees, and these have attracted many teachers and non-graduate college lecturers.

The efforts of the Ministry of Education have been concentrated on the provision of shorter training courses, workshops and seminars aimed at upgrading college lecturers in such fields as Foundations in Education, Programmed Instruction, Linguistics and Language Teaching, and various academic subjects taught in Teachers Colleges. The academic staff of the Faculty of Education, University of Malaya and other local universities play a major role in the planning and implementation of these courses, while the expertise of overseas personnel has also been obtained through such agencies as the British Council and UNESCO.

Other Programmes for In-Service Education

In addition to formal in-service courses, opportunities exist for teachers and
teacher educators for the exchange of ideas and the introduction to new concepts and techniques through workshops and seminars at both national and regional levels. Some recent seminars have been devoted to such themes as the "Development of Education—Today and Tomorrow", the "Training of Curriculum Evaluators" and "Programmed Instruction".

The Educational Media Services Division of the Ministry provides radio and television programmes for schools. Currently, emphasis is placed on such programmes as Civics, Modern Mathematics, Integrated Science, Bahasa Malaysia, English and Commerce. Of more general interest, particularly to teachers, is the "World of Education" telecast over ETV. The Division is currently exploring the use of cassettes for programmes of specific interest to various groups of schools which need not utilize the national network.
Inservice Education: New Zealand

Department of Education

Residential In-Service Training

The Department of Education owns two residential centres; Hogden House in Christchurch and Lopdell House in Auckland. Each is in operation 48 weeks of the year and caters to both national and regional courses for primary and secondary teachers, with some courses being allocated to teachers’ colleges, technical institutes, the Inspectorate and teachers from the Pacific Islands. A course is normally for one week with 26 people taking part. These courses are directed by a member of the Inspectorate or Curriculum Development Unit assisted by teachers college or university lecturers and by senior teachers. Teachers invited to attend such residential courses have all travelling and accommodation expenses met by the Department of Education, and provision is made for the employment of relief teachers in their absence.

Non-Residential In-Service Teacher Training

Since 1961 when Walters House, Auckland, was established as a non-residential in-service centre, similar centres have been developed in other urban areas throughout New Zealand. These centres range from a room within a school to a centre (usually a converted house) with offices for the Department’s district advisory staff, and storage and secretarial facilities. They are used mainly by teachers in the primary service and provide a focal point for the in-service activities of inspectors and specialist advisers in the particular education district.

In addition to the week-long or month-long courses at centres such as those described above, a large number of short one- or two-day courses are arranged by primary and secondary inspectors and by special advisers in subject areas including reading, music, art and craft, physical education, science and mathematics. These are frequently held at a school or teachers’ college with course members being drawn from the surrounding district. Relief teachers may be employed to supervise classes of teachers attending in-service courses of this kind.

As part of a current review of secondary education in New Zealand, greater emphasis is being placed on secondary schools having a measure of freedom in developing their own curriculum appropriate to the needs of the pupils and the local community. This view of the school as a unit has led to the in-service training of teachers within the school. With the assistance of Department of Education Inspectors and officers of the Curriculum Development Unit, Principals and Heads of Departments within secondary schools are being encouraged to take on more responsibility for the continuing education of their teachers.
Individual Study by Teachers

A variety of awards are made each year by the Department of Education to enable teachers to improve their academic qualification. Teachers' Bursaries are granted to a number of teachers studying part-time for a first university degree or for a post-graduate Diploma of Education or Diploma in Educational Administration. In addition, a year's leave on full pay can be granted to enable teachers to complete a degree. Assistance is also given by the Department of Education to teachers preparing themselves for examinations towards the Diploma of Teaching. Certificated teachers qualify for this Diploma by passing six university degree units (or their equivalent) or taking up to three non-university professional courses provided by the Advanced Studies for Teachers Unit of the Department of Education Correspondence School. The vacation seminars, special tutor groups and evening classes held throughout the country for teachers taking these Diploma of Teaching units represent a valuable form of in-service work for teachers.

Tertiary Institutions and In-Service Teacher Training

Universities, usually through their Department of Continuing Education, conduct seminars, workshops and vacation courses for teachers. Some of these are "approved" by the Director-General of Education as being suitable for the in-service training of secondary teachers, and the registration and travel costs of teachers attending these courses are met by the employing Board. The Board may also employ substitute teachers if required.

Teachers' Organisations in In-Service Training

Subject associations, e.g., in music, science, art, social studies, etc., are often active in promoting field-days, workshops and short courses of various kinds. Teachers usually attend such courses in their own time and at their own expense.

The two professional associations of teachers in New Zealand (the New Zealand Educational Institute and the New Zealand Post-Primary Teachers' Association) are both closely involved in in-service work with teachers, not only by suggesting possible courses for the residential centres and playing an active part on the Teachers' Refresher Course Committee, but also by arranging local weekend or evening courses for their members.

Teachers' Refresher Courses

The Teachers' Refresher Course Committee was set up in 1944, and consists of representatives of primary and secondary teachers' organisations and a teachers' college member. It conducts about twenty residential courses each year, mainly during the summer vacation, and topics range over different parts of the curriculum as well as professional and administrative roles of senior staff. Attendance at these courses is by application with teachers being offered travel to and from the course but paying their own accommodation expenses.
Fellowships and Awards

While there is not, as yet, a system of sabbatical or regular study leave for New Zealand teachers, a variety of travel awards are made each year; exchanges are made with overseas teachers in the United Kingdom, United States of America, Australia and Canada; and teaching fellowships are awarded to Universities within New Zealand.
Inservice Education: Philippines

Paz Ramos
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University of the Philippines System

Teaching Training Institutions

In order to have greater impact in the teaching field the Department of Education and Culture—the Ministry of Education in the Philippines—has been working closely with teacher-training institutions in implementing in-service programs. For instance the University of the Philippines College of Education has formal agreements with the Department whereby the latter sends yearly to the College a specified number of selected teachers and administrators to update them in such content areas as reading, language, health education, special education and educational administration. These teachers and/or administrators are under contract to return to their respective positions and to introduce in their schools what they have learned in the in-service programs.

In addition to degree programs, short-term courses or special programs are from time to time requested by the Department of Education and Culture. The College prepares the program according to the needs of practicing teachers to be trained. These programs are given to them on released time either during the regular semester or during summer sessions. They are non-degree programs and may or may not have graduate credits.

Summer Institutes

Since many of our teachers are busy with a full teaching load during the academic year and cannot take time out for advance studies, summer courses are made available to them in teacher-training institutions. These institutes reach both beginning teachers and those long in the job. The Department of Education and Culture has a permanent Teachers Camp for this purpose in our summer capital in Baguio which is open every summer for this activity and during the year for workshops, seminars and conferences. The different teacher education divisions of the three bureaus of the Department of Education and Culture organize their own in-service teacher education programs not only during summer but also during the year. Faculty members from teacher-training colleges are invited as resource persons to these activities wherever their expertise is needed. Both state and private teacher-training colleges likewise offer graduate education courses during the summer terms.

Live-In-Seminars

Quite recently, week-long seminars began outside the city to ensure regular attendance and full use of the time of participants. The sessions are intended not only to update the teachers in their profession but also to plan for echo-seminars when they return to their posts. Usually, the participants are key people who are in a position to disseminate knowledge learned in these seminars to their respective constituencies.
Regional Science Training Centers

In the area of science and mathematics, the Science Education Center of the University of the Philippines System has taken a leadership role in the in-service teacher education program. In 1967, the Center made a survey to determine which teacher-training institutions in the country, whether public or private, could best serve as regional science training centers by virtue of their geographical location; that is, accessibility for teacher training; the size of the school as reflected by its enrollment; and the attitudes of the administrators, their willingness to participate as a regional training center. Nine schools situated in different regions of the country were chosen. These schools were then invited to send one teacher for each of seven subject areas in science and mathematics. The teachers selected for this in-service program are sent to the U.P. College of Education on a staggered basis, usually for two subject areas at a time and for at least three semesters and one summer—long enough to complete a masters degree. Participants are given scholarships jointly by UNICEF and NSDB. Upon graduation, they are expected to train classroom teachers in their regions during summer terms for which the teachers obtain graduate credits. At present, there are 27 schools participating in this program, nine of which are the regional science training centers already mentioned.

Programs through Professional Associations

There are several associations for teachers in the country. Each of them initiates in-service teacher education activities to upgrade its members. For this purpose, school buildings are utilized as sites for conferences, seminar-workshops and the like.

Programmes Abroad

The Regional Centre for Science and Mathematics in Penang, Malaysia (RECSAM) the Regional English Language Centre in Singapore (RELC), and Innovations in Educational Technology in Singapore (INNOTECH) are among the Asian centers that have invited participation by Filipino teachers and administrators in their training programs. The first center is for new approaches in science and mathematics, the second for language teaching and the third for innovations in educational technology. Some Filipinos are able to enjoy fellowships to these centers.

Facult development programs involving training in universities abroad for specific degree programs are likewise available for those who succeed in the competitive screening procedures. Some of these grants are the Fulbright East-West Center and the Colombo Plan. Priority in selection is given to study plans related to the country's developmental goals.

Trends

In-service programs for teachers are becoming more pragmatic and indigenous. They are geared towards developmental goals of the country. For great-
er integration, ethno-linguistic studies are encouraged. Workshops recently conducted have focused on educational innovations like individualized instruction, programmed learning and new approaches in various subject areas including social studies, science, and mathematics.

Areas of concern related to education are reflected in the choice of topics for regional conferences such as population education, non-formal education, development education, special education, environmental studies, educational planning and the like.
Inservice Education: W. Australia

Education Department

Government In-Service Agencies

Governmental in-service education seeks to promote the Education Department's current educational philosophy and techniques. This is facilitated by an in-service education branch, staffed by a superintendent of in-service education and a number of departmental officers. In the Perth metropolitan area, most courses are conducted at the In-service Centre. In the country areas, a suitable regional centre is selected and teachers journey in from the surrounding districts. During 1973, 2,447 primary and 2,231 secondary teachers participated in in-service courses; this represents approximately 58 percent of the full-time teachers employed in August, 1973. In addition the Further Education Centre's courses for teachers to improve their academic qualifications are frequently allied to in-service practices in that the course content is strongly oriented to educational situations. The Technical Educational Division provides in-service opportunities for its teachers.

Other Agencies

Tertiary institutions also offer a variety of in-service activities. The Pre-School Education Board conducts continuous courses for its members, and provides assistance at the pre-school level if requested by the teachers. The extent of in-service education by the five colleges of advanced education—formerly teachers' colleges—depends on the college principal and staff. Having just attained their autonomy from the State Education Department, the colleges indicate that they expect to play an increasing part in teacher in-service programmes. The University of Western Australia—through its extension service—offers selected courses throughout the year. Some of these courses are oriented towards practising teachers. The Western Australian Institute of Technology has not yet developed an in-service programme (but many teachers are enrolled in part-time academic courses). It is currently preparing courses for pre-service training, and will undoubtedly become involved in other phases of in-service training at a later date.

Professional In-Service Associations

The number of professional associations is indicative of the diverse but specific interests of groups involved in education. Many groups actively promote specific subject-oriented activities, calling together teachers for meetings, discussions and workshops. Other groups may be primarily concerned with a particular group of students or teachers; while others draw members from certain promotional or hierarchical positions within the Education Department. Whatever their basic drive, these groups frequently initiate activities that benefit practising teachers.
Local Groups

In addition to those organisations already mentioned, parent groups, commercially sponsored groups, sporting associations and other community groups engage teachers in activities that keep them up-to-date.
Section Six: 
Current Trends in Teacher Education

Current trends in teacher education are discussed in six geographical regions. Tewari's paper deals with India, Dunkley's with Australia, Mbiti's with Kenya, Leskiew's with Canada, Cyphert's with the U.S. and Surakhmad's with Southeast Asia. Next, three papers deal with teacher education in world-wide perspective, Ebert's, Wong's and Richardson's. These are followed by Reyes' paper on higher education in the Americas, Pajuelo's on cultural pluralism in Peru and Corrigan's paper on a new concept of the teaching profession. Fafunwa's paper on university teaching completes the section.

Emerging Trends in Teacher Education: India

D. D. Tewari
President, Indian Association of Teacher Educators

In order to understand the emerging trends in education, it is necessary that I start with the major aspects and issues that confront us at the moment because it is in relation to these national focuses that the trends in education will be better understood.

Socio-Economic Influences

1. Population

India is a country having a population of 547 million. By the end of the present century, the population in India is estimated to be more than 1,100 million. Although the economic situation has improved during the year 1975-76, the war against poverty is still on because there is a big gap between the rich and the poor.

The position of literacy in the country is very depressing. According to the census of 1971, about 70 percent of the population is illiterate.

By 1980, at the primary stage (6-11), one-fifth of the girls will still be out of school. Almost half the age group between 11-14 will be receiving no education and three-fourths of the age group 14-17 will be out of school.

With this background, it is easy to take up the emerging trends and issues in education. To the question what is the top-most problem facing the country, the answer is: population explosion. You will find posters of family planning and health on buses, on houses and streets and in every village and every nook and corner. The battle of population control is being fought with full strength, and it is really a question of survival for us.

2. Costs

The second trend is related to the economics of education. Costs are rising
TRENDS: Tewari

and it is becoming difficult for governments to cope with them. More than 80% of educational expenditures goes to salaries. There is a growing concern to devise ways and means to reduce educational expenditure—expansion programs have been slowed down, and various mass media and open systems are being developed to provide educational facilities at considerably low cost. Efforts to reduce wastage and stagnation are being intensified and non-formal patterns of education are being tried and worked out for those who leave or remain out of school for one reason or the other. Even the duration and content of courses are being shortened and condensed. The barriers of formal education are being broken up. Age restrictions on receiving educational facilities are being removed and a teacher may be expected not only to face a difficult child but a difficult adult. The concept of lifelong education is catching up and the rules of success and failure of the examination and procedures of evaluation are being modified.

There is a tendency all over the world to bring education under central or federal control. This is a trend partly due to financial reasons and partly due to political necessities. With the rising costs of education and the local resources dwindling, it has been difficult for local units or states to bear the burden of educational responsibility. The local resources are getting depleted and the central governments are in a better position to discharge this responsibility. It is in this context that in India education, which has been a state subject so far, is going to be a central as well as a state subject.

3. Educational Technology

The third trend is the technological. Technology is having its impact in India as it is having in other developing countries as well. In education, radio has been used as a medium for some time. India has entered the TV stage and an experiment known as SITE (Satellite Instruction Technology Experiment) has been launched. About 2,400 villages are being served and it is proposed to further expand the program. Talk about Programmed Instruction and Teaching Machines has been heard but it has not found its way to popular support. Some language laboratories are used but they are more ornamental. Some data processing devices are in use and, as they become popular, they are likely to find a place in the curriculum in due course. Some tape-records and films are also in use but the common teacher and his classroom possess generally a blackboard, chalk-sticks, wall maps and charts (though not very common) and textbooks. Education in India is labor-intensive. For the next twenty-five years, I do not think there is going to be any basic change in this structure. Capital-intensive education is costly, though those running the business do not say so. They proclaim it to be much cheaper. Even if it is cheaper, the question is whether it is education or something else. Technology as aid to the teacher is welcome but the country must be in a position to bear the additional costs. Technology as an external element in the teaching process: replacing the teacher in some way, is dangerous. We are at the cross-roads and let us wait and see which way we go or are compelled to go for those running the technological
business can make anything go with their money-bags. Even research findings can be pressed into service to justify their claims.

4. Vocational Education

Fourth, the trend that education should be related to employment and production has become very prominent. This is, however, a controversial issue and there are people who do not wish education to be responsible for or related to employment.

In India, it was Mahatma Gandhi who emphasized that education as given by the British was irrelevant to the needs of the country and he thought that education should be given through the medium of productive activity. He also held that in the process of education, teachers and students must earn while they learn. He envisioned a decentralized society, self-reliant and self-supporting. He knew that jobs were few in the country and a large number of men and women would have to remain jobless. His productive education aimed at generating self-employment. Even today, thousands are working on the spinning wheel and handicrafts and earn their living. It is today obvious that even the most prosperous countries cannot provide jobs to all young men and women in its working force. The society, therefore, has to look at the educational process in these terms; whether it is the developing world or the developed one, the problem has a universal character.

5. Higher Education

The field of higher education is beset with many problems. The traditional concept of higher education has not changed much in India. The prestige attached to what we call academic courses in the university is still very high. The universities and institutions of higher learning have not made themselves relevant to the economic needs of the country. In India, it is the university alone which can award a degree. This is a situation completely different from the U.S.A. and other developed countries where a college can award a degree and there can be courses in the universities. India can take advantage of the experience of countries which have upgraded the status of vocational courses by adopting various devices.

Economically speaking, higher education in India only extends the period of study and postpones the beginning of unemployment. It does not solve it, rather it generates acute unemployment.

The educated unemployed in India (matriculation and above) number about 4.3 million. Investment in education thus becomes unproductive. The burden on the public exchequer becomes almost unbearable. The rate of economic growth offers some solution but we all know that it is not a complete solution, because even countries with a very high rate of economic growth are faced with acute unemployment problems for various reasons. Sophisticated technology is one, and emergence of self-reliant nations in the developing world another.

6. Language Diversity

All Indian languages and dialects have two things in common. They have a
common cultural base, the themes of literary works in the north are the same as in the south and all of these have strong roots in Sanskrit. Even the script of a majority of these languages is Sanskrit. Therefore, the problem of multilingualism in India is not as acute as it is often depicted by foreigners.

Generally speaking, a student has to study his mother tongue or the regional language to which he belongs. He has also to study the national official language Hindi and then he has to study English not because it is compulsory but because it is an international language and serves as a window on the world. At the primary stage, normally the mother tongue is studied and at the secondary stage (lower or higher) the second and the third languages are introduced.

**Teacher Education**

During the tide of expansion, teacher preparation has received a low priority. Gunnar Myrdal, in his book *The Challenge of World Poverty* views the training programs for teachers in the developing countries with suspicion as they produce only half-trained or ill-trained teachers:

> The classification of teachers as 'trained', moreover, has to be viewed with the greatest suspicion. Most of them, particularly in the poorer countries, are not well-trained in any sense of the word.

Further, the quality of teacher education or teacher preparation depends on high quality research in education which is conspicuously wanting. A lot of emphasis has been laid on in-service education of teachers for science. But it is a lop-sided approach and obviously there can be no good teaching of science unless there is equally good teaching in other subjects. School, like education, is an integral whole and to think that one part can be innovated while the other part is out-dated, is an erroneous presumption. Moreover, programs of in-service education lack the support of sound pedagogy and are more content-oriented.

Teacher education programs are not only uncoordinated but unrelated to real school situations. There is a demand in the U.S.A. that control of teacher education should go to the school system. The teachers and their organizations in India are also beginning to feel this way. It is high time that teacher educators realized their responsibilities before it is too late.

One of the functions of education is to bring about change but unfortunately society moves at a quicker pace and education lags behind. The fate of teacher education is still worse. It works and feeds itself on out-of-date theories and practices or often adopts foreign practices which are completely irrelevant to the needs of the community.

Teacher education has yet to enter the mainstream of life and face the issues. The nation has taken a big leap in the 20-point program of our great leader. Programs for productive labor, national and social service and providing greater facilities to students have been launched in a big way. The challenges are before us and I hope those concerned with education and teacher education will play their part well.
Current Trends Affecting the Education of the Teaching Profession: An Australian View

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In Australia, teacher education programs are offered by universities and colleges of advanced education. Traditionally, secondary teachers followed four-year programs within universities while courses for pre-school and primary teachers were of three years' duration and were located in colleges of advanced education. During the past few years these distinctions have begun to blur. Until recently most colleges of advanced education were single-purpose institutions involved in teacher preparation but many have become multipurpose colleges in the past five years.

Interaction between elements of the social system produce changes which in many cases affect the nature of teacher education programs. Changes have probably been greatest in the school sector particularly since the establishment of the Schools Commission. Further, in considering change, it is necessary to develop the capacity of the teaching profession, not just to react after the fact, but to foresee the direction of change. It thus becomes possible for teacher education to help prospective teachers, and teachers to become creative participants in the change process, as a purpose of teaching is not to conserve but to promote change. This trend is not strongly evident in our present thinking about the nature and purposes of teacher education programs.

Educational Trends

It is possible to discern some broad general trends which will affect teacher education, particularly the components of professional knowledge and school experience and to a lesser extent the components of liberal studies and specialized knowledge of the subjects to be taught. These are:

- consequences of the economic recession following a period of continuous inflation and the instability of the world monetary situation,
- changes in patterns of school enrollments and teacher requirements,
- reforms of educational systems,
- greater access to education, and
- provision of a wider range of education.

Criticisms of Teacher Education

How can teachers be educated to be successful in meeting these challenges? From these trends with their competing priorities, the place of and the role of school experience is receiving most attention as a means of providing better teachers. Criticism of the traditional patterns of teacher education has been a feature of the educational scene for many years. The major criticisms might be summarized as:
• the inappropriateness of criteria used for admission to teacher education programs,
• a lack of coordination and cooperation between teacher education programs and schools resulting in the lack of effectively developed relationships,
• a lack of credibility of lecturers in the eyes of students,
• a lack of relevance particularly in the separation between the theory sections of courses and practice in schools on the ineffective use of school experience time, and
• the credibility gap between teacher educators, school principals, and teachers by failing to provide student teachers with a complete picture of school life and an adequate understanding of many aspects of a teacher's job, particularly the changing and complex nature of the teacher's role.

New Trends

Teacher educators will take a major step forward in seeking true professional status when they overcome these criticisms. A significant part of this process lies in the provision of effective school experience.

In attempting this, it is necessary to remember that the practical experience component of a teacher education program cannot be developed in isolation from the other components of the program, particularly when a deliberate attempt has been made to integrate theory and practice. Any attempt to isolate and specify the desirable content and the nature of the school experience components brings the realization that there is a dearth of data and consequently a wide divergence of views. The practical experience component can take a variety of forms and it is unlikely that it will ever be possible to specify the duration and nature of each form of experience or judge its acceptability, or otherwise, except in relation to the overall objectives of the total program.

The elements of the practical experience component require systematic planning, careful supervision and positive feedback to the student. It is necessary also to provide each student with sufficient time in schools to enable the student to experience a wide range of teaching duties and to develop a teaching style.

Experience other than that in school situations is also important in the preparation of teachers as teacher education must prepare teachers to assume responsibility for integrating knowledge—that acquired outside the school as well as that which was formally taught—and so provide for the integration of the individual into the community.

Elements of the practical experience component are:
• "Block" teaching practice is a term in common use in colleges of advanced education. It involves substantial participation in teaching.
• "Concurrent" teaching practice provides an opportunity for school attachment, e.g., on day release in which the student assumes responsibility for regular teaching tasks.
• Internship provides for an extended period of placement in the school
TRENDS: Dunkley

with complete responsibility for the teaching of pupils but with a lighter work load than that for a fully qualified teacher. The internship requires also continuing regular contact and liaison with the training institution for the satisfactory completion of final attainments for a teaching qualification.

- **Skills acquisition** may be achieved by experiences which are programmed specifically to modify and improve teaching behaviors.
- **Field experiences** are scheduled activities involving students in contact with children, teachers, and other adults in a variety of instructional tasks.

Irrespective of what changes are made in response to present or future trends, there is little chance of a program giving satisfaction to those involved unless there is a clear understanding of its objectives, an appreciation of how it sets out to meet these objectives and some adequate assessment as to the extent to which such objectives are being achieved. As an extension of this it is suggested that often there is a gap in effective communication between the institution, the students, the teachers and the community which results in the purposes of the course as planned by the institution being at variance with expectations.

Further, the involvement in properly organized school experience by teacher educators is a continuous learning experience for them, as it keeps them in touch with the evolving school and changing community aspirations. Finally, it should convince them that the future of teacher education depends on the success of their efforts in this domain and to realize that to isolate the schools from teacher education is a recipe for certain failure.
Current Trends in the Education of the Teaching Profession in Kenya

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Introduction

As one of the developing countries in Africa, Kenya will be celebrating her 13th Year of Independence at the end of this year. During the first decade of Independence, the major problem with which the country has had to cope has been mainly the one of tremendous expansion of education at every level. Primary education, for example, has increased from under one million pupils in 1963 to 3.1 million in 1975. Secondary education has increased its enrollment from 3,020 pupils in 1963 to 200,000 pupils in 1975. University enrollment at the University of Nairobi has increased from 480 students in 1963 to 5,347. At present 80% of our school age children can receive seven years of primary education while 23% of them can receive secondary education.

Such rapid expansion of quantitative educational opportunities has posed qualitative problems as well as economic ones.

Besides the rapid expansion of educational opportunities, Kenya has also achieved other noble goals in education during the first decade of her independence; some of these goals are:

1. removal of racial segregation from the entire school system
2. creation of national unity
3. localization of syllabi at all levels of education
4. introduction of a supervisory service for elementary education
5. establishment of a teacher education program at the university level
6. production of educational materials locally
7. establishment of a special education unit in the Ministry of Education

To achieve these and many other objectives, the country has had to sacrifice a large chunk of her limited financial resources to education. In fact, Kenya is one of the few countries in the world which is spending as much as 34% of its total annual national budget on education as a single item. We are doing this because we believe that education, though not a cure for every socio-economic problem, is one of the necessary gateways to modernization and better human welfare.

Quantitative Trends

The achievements I have cited here above have not come to fruition without some underlying innovative programs, be they national, regional, continental or international. It is also true to say that our educational achievements have been followed by some real setbacks which have been viewed both as inevitable and as good lessons for future planning and decision making. But since setbacks are mere negative consequences rather than attributes of inno-
TRENDS: Mbiti

When we look at primary education for instance, it can be stated that the abolition of school fees by the Kenya government for the first four grades of the primary level in 1974 did accentuate a major problem of inadequately trained teachers to meet the rapid expansion of enrollments. At that time, it became glaringly clear that the existing primary education training capacity was inadequate to meet the professionally trained teacher requirements for an expanding primary education sector. Hence, in the absence of a crash program to train more teachers, the country was forced to employ a large number of unqualified teachers. On the other hand, were programs devised to produce one qualified teacher for every forty primary school pupils, the total primary school teachers' salary bill would have been beyond the country's economic ability to pay.

This was and has been a real dilemma for which realistic decisions, though not conclusively made yet, must be made about the future of primary education and about the payment of primary school teachers. As I speak to you here now, it may interest you to know that 39% of our primary school teachers are untrained and that, even with this high percentage of untrained teachers whose salaries are quite low in comparison with those of the trained teachers, 67% of the total education budget goes to pay salaries of primary school teachers. In an attempt to solve the one problem of the supply of trained teachers for our primary schools, two approaches have been taken:

1. The Expansion of Facilities in the Primary Teachers Colleges for Pre-service Courses

The expansion of the pre-service teacher education program began in 1969 by consolidating 24 small primary teacher training colleges with a total student enrollment of 2,000 students into 17 larger institutions with a total enrollment of 8,500 at present and with a target of 15,000 student enrollment in the next four years time. At present our annual output of trained primary school teachers is 4,200.

2. Mounting of an In-service Course for the Unqualified School Teachers

This is a supplementary program to the pre-service program. The in-service course was started as a crash program and therefore as a stop-gap measure against the high percentage of untrained teachers in the classroom since the pre-service program could not cope with the growing demand. The program was started with technical aid from the Canadian government in 1968. Its main aim was to give training opportunities to those individuals who had been teaching as unqualified teachers for at least five years and therefore to reduce their numbers significantly. The quality of the in-service program so far has not been on an equal footing with that of the pre-service program but plans are underway to improve it if it continues. The course structure has three major components:
the residential component which is covered in teachers colleges during school vacation

the radio and correspondence component which is covered in the field throughout the school academic year on the basis of individual assignments and radio broadcasts

the practical teaching component which is guided by school supervisors

The residential component covers 36 weeks spread over four academic years. When students of this course graduate, they receive the same teaching certificates as their counterparts in the pre-service course who undergo a two-year intensive course of studies.

Even with these two programs of primary teacher education, Kenya is still faced with a critical shortage of trained teachers for her 3.1 million children in primary schools. The major problem is really not one of lack of ways and means of training enough teachers; rather, it is an economic problem. We simply cannot afford to pay a total force of 100% trained teachers at the moment.

Qualitative Trends

While tackling the quantitative aspects of education of the teaching profession and while trends are being mapped out to provide solutions, there are some remarkable qualitative trends which have been established to improve not only the standards of the existing system but also to cater to any relevant changes in the future. Some of the trends are enumerated here below:

1. Staff Development in Primary Teachers Colleges

In accordance with the government’s current development plan (1974-78), machinery has been set in motion towards the improvement of primary education by raising the quality of the professional and administrative staff of teachers colleges. This objective has been guaranteed by the following measures:

a) The creation of a special salary structure for teacher educators

This has been with a view to attracting and maintaining the best of our teachers in teacher education. The salary structure for teacher trainers is now much better than the salary structure in the Civil Service and in secondary education. This decision has already been implemented and the results are paying dividends.

b) The formal training of teacher educators

With the realization that primary teacher education is an area which demands specialization, we have established programs which are tailored to the needs of primary teacher training. One of these programs is conducted by the University of Nairobi where experienced graduate teachers who have been carefully screened as potential material for training as teacher educators, undergo a two years M.Ed. program in primary education. The first lot of 25 educators has just graduated.

The second program in this order is connected with a bilateral agreement between Kenya and Britain whereby we send some of our teacher educators to Britain for specialized courses in the teaching of English, mathematics, science
or education on a five-year exchange basis with British tutors. It is my hope that the department of primary education will be started within the faculty of education at Kenyatta University College in the near future. Also, as a member state for the Science Education Program for Africa, we are sending some of our science teacher educators to the University of Sierra Leone for graduate studies in primary science methods.

All these innovations have already created a real revolution in teacher education. In this respect, teacher education in Kenya has already established its own distinctive characteristics and the future looks bright.

2. Staff Development in Secondary Teacher Education

As far as the teaching of science, mathematics, English and technical subjects at the secondary level are concerned, Kenya has been relying rather heavily on non-citizen teachers, most of whom are from Britain. At the beginning of 1975, however, steps were taken to ensure that this great shortage of local teachers was alleviated. The government has offered increased opportunities for both non-graduate and graduate students to train as secondary teachers in the areas which are badly affected. Such increased opportunities have been offered without a significant increase in facilities or costs at the University of Nairobi, Kenyatta University College, and Kenya Science Teachers College. A new college, Kenya Technical Teachers College, is under construction and will be in operation in two years' time.

All in all, it is estimated that Kenya will have enough local secondary school teachers by 1982.

3. Special Education Program

Already two of our primary teachers colleges have established departments for training teachers for special education. Plans are underway to centralize special education at one teachers college and a scheme for training specialists abroad has been instituted.

Suitable schools have been established for severely handicapped children. Two have been established initially with the cooperation and assistance of voluntary agencies. Our major problem in this area is shortage of funds; otherwise, there is a concerted effort to meet the needs of handicapped children of various descriptions.

Curriculum Trends

In the area of curriculum, it is pleasing to note that quite a few significant projects, both within the local framework as well as within the regional framework, have been undertaken.

1. Local Curriculum Projects

Under the Kenya Institute of Education, whose major responsibility is curriculum development and educational research, four major programs are worth mentioning.

a) Pre-school education project

This project was started in 1971 under the sponsorship of the Bernard Van Leer Foundation of The Hague, Netherlands. The objectives of the project were identified as follows:

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TRENDS: Mbiti

i) to devise a teacher training program for upgrading and preparing teachers for early childhood education in Kenya

ii) to develop experimentally a nursery school curriculum for use in nursery schools in Kenya

iii) to identify and train supervisors for nursery schools in the country

To achieve these objectives, this project developed two major components: one of staff training and the other of curriculum development. The project began its pilot training program in the city of Nairobi in September, 1972 with trainees sponsored by the Nairobi City Council. The project has been so successful that it is now ready to embark on teacher training programs in the rural areas of Kenya.

b) Education mass media center

The International Bank for Reconstruction and Development has already granted a loan to the Kenya government for this project. The government envisages a vital role for mass media in promoting the quality of education for its peoples. The project will concentrate on the production of programs, preparation of audio-visual and video materials as well as repair and storage of such programs and teaching materials.

As soon as the center is in full operation, it will be possible for teachers to receive materials in program packages for their use in the classroom. Teachers will also be encouraged to be fully involved in the preparation of programs and materials by the Kenya Institute of Education. It is hoped that this project, once in full swing, will bring an end to rote-learning and drill-teaching which are very common in our classrooms today.

The educational mass media package will cover TV programs, films and loops, wall charts, film strips and slides. Top priority for these programs will be given to primary schools and Harambee secondary schools where the need is greatest. At present, however, radio programs beamed to schools at specified schedules are very effective.

c) Learning resource centers

These are new facilities which are being introduced in all the primary teachers colleges and coordinated with the Kenya Institute of Education where the master Learning Resource Centre will be located. In each case, the complex will include a fully equipped library, a teacher's advisory center, and a mass media room.

The major aim is to make all learning and teaching self-motivating and activity oriented. These facilities and the related equipment should be ready in the next two years and should no doubt help to revolutionize teacher education.

d) Integrated project in applied education in upper primary classes

While the Kenya Institute is busy in the preparation of curriculum material for use in pre-vocation courses for primary school pupils, the European Economic Community has provided funds for a pilot project in an integrated rural development in one of the economically marginal districts of Kenya (Machakos).
While this pilot project will be basically economic development in nature, there is a built-in educational package.

The object of this project will be to carry out an experiment on how pre-vocational education can be related to economic development. This is the first time this approach has ever been used in Kenya, i.e., relating formal education to job opportunities within a society.

The project is aimed at making it possible for primary school leavers to be profitably absorbed in the economy within their local areas. A few schools have been identified within the district where the integrated rural development will take place.

The project will last for the next four years (1976-1980). If it is successful, the approach will be employed in other parts of the country. We will then be able to justify that both education development and economic development must go hand in hand and that education which is isolated from economic realities of its society is likely to cause more unemployment problems than it can solve.

2. Regional Projects

Realizing that the modern world is a world of interdependence, Kenya has involved herself in two specific curriculum projects on a regional basis and for the benefit of her own local educational progress:

a) African social studies program

This is a non-profit, non-political organization constituted in 1969 by English speaking African countries with its headquarters in Nairobi. The program advocates the integrated approach to the teaching of social studies as a more meaningful way of enabling children to explore their immediate and wider environment. Its objectives are as follows:

i) to promote the development of a new curriculum in social studies relevant to the African child
ii) to exchange ideas and information among member states
iii) to promote research in social studies in an African setting
iv) to produce resource materials for both teachers and pupils in a given geographical or cultural area

Under this program a lot of relevant materials have been produced from the various member states. The program is quite enriching to education in Africa. The project has written a lot of teachers guides on materials for the teaching of social studies at the primary level. Plans are underway to embark on the secondary level of the teaching of social sciences.

b) Basic education resource project

This is a newly established curriculum project which serves 18 countries of the eastern region of Africa, i.e., Botswana, Burundi, Comoros, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Mauritius, Rwanda, Uganda and Zambia. The centre for this project, which is funded by UNESCO/UNICEF is at Kenyatta University College. This centre was inaugurated on 22nd June, 1976. The objectives of this project are to collect and pub-
lish information on basic education, establish priorities for research and organize workshops and conferences.

The centre has just completed a workshop on “Childhood Education in Eastern Africa” (June 22-July 1, 1976) at Kenyatta University College where a very encouraging step was taken by the participants in beginning to prepare the text of a book especially for student teachers on the subject “Childhood Education in Eastern Africa.”

The centre staff is at present busy collecting library documents and other resource materials related to basic education.
Educating a Profession: Progress and Hope in the Canadian Scene

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Introduction

Level of government with responsibility for education is but one of a number of broad issues which must be understood in examining education in Canada.

The system of representative and responsible government at the national level is carried through to the ten provinces of Canada. Each province has its elected legislature and cabinet of ministers responsible to the legislature. Each province has a Ministry of Education. There are, therefore, really ten educational systems in Canada which are fully independent and are relatively unrestrained in their development and operation by external (federal) policies.

All provinces have statutory provisions for automatic membership by teachers in a professional association. The province of Ontario has five professional associations for teachers functioning under the umbrella of the Ontario Teachers' Federation; the province of Quebec has three associations, and the remaining provinces have one each. All teachers currently teaching in public schools are members of one of these sixteen associations across Canada.

The history of the development and involvement of teachers' associations in Canada is a fascinating story told by Paton in a short treatise entitled The Role of Teachers' Organizations in Canadian Education. Paton cites three major reasons why automatic membership was successfully attained—and subsequently maintained—in Canada.

a) The statement was made that only through policing professional conduct, as do the medical and law professions, could professional status be maintained.

b) A code of ethics was required to enforce professional conduct.

c) The relatively small number of teachers in each province was likely a factor, in that all teachers were required, if an association were to become powerful enough, to have a central organization.

The remainder of this paper will be devoted to a discussion of the teaching profession and its search for responsible involvement in education decision-making on issues pertaining directly to its own welfare, as well as those of broader implication such as the appropriate preparation for teaching and the setting and environment for teaching in the schools and the community.

The Professional Teachers' Association: Quest for Responsible Involvement

While much disparity exists among provinces and occasional dissatisfaction arises within provincial associations, there appears to be little doubt that teachers' associations have gained overwhelming support from their memberships for efforts extended towards improvement of salary-related benefits,
and services. Because of persistent efforts during the past twenty-five years and continuing attention by teachers' associations to these two factors, the accusation is often made that these associations are essentially unions, primarily motivated by the desire to help and protect their own membership. Admittedly, continuing attention is given to material gains and, periodically, the main thrust of an association must be directed at preserving and extending these material gains.

The teaching profession in Canada, as in most countries, had a later start historically in its struggle for economic parity with other professions. Because of the uniqueness of teachers' functions, the large numbers of teachers required, and continuing negative perceptions of the importance of teaching as a professional specialty, the teachers' associations have had a longer and more difficult time in elevating the status of teaching to levels accepted for the established professions.

Even so, further information to be presented about other functions and contributions of teachers' associations will refute the allegation about preoccupation with material gain. Yet the criticisms do have a positive impact for they implore professional associations to maintain a balanced perspective towards all the functions.

The Teaching Profession and its Preparation Arm

Several trends are discernible as one views the relationships between teachers' associations and faculties of education:

1. The move towards involvement in policy-making decisions concerning the preparation of teachers has developed slowly. Only during the last decade have associations assigned higher priority to the procurement of a strong voice in teacher education. While there is a growing conviction that the teaching profession must participate more directly in deliberations concerning teacher preparation, legal provisions for such participation have been fragmentary and minimal. The degree and type of involvement varies from province to province. In no province has a teachers' association been given the full responsibility for certification and there appears to be little likelihood that such a move will take place in the near future. As has been pointed out earlier, teachers are represented on advisory boards which have the power of recommendation to Ministries of Education and to universities. In British Columbia, for example, the advisory board (Joint Board of Teacher Education) is composed of two members of the Teachers' Federation, two from the School Trustees' Association, two lay citizens, three deans, and three officials of the Ministry of Education.

2. Growing pressure is being exerted on teacher preparation institutions to lengthen the practicum portion of the professional studies component and to reduce the rigid campus orientation of preparation programs. To date, the advocates of campus-based, campus-oriented programs have held the upper hand. However, disenchantment has set in from the public sector, from the profession, from school systems, and from preparation institutions themselves and there is now a distinct likelihood that field-oriented and field-based pro-
TRENDS: Leskiw

gram sectors will balance the emphasis developed in the campus sectors.

The move off-campus has major significance for governance of teacher education as a whole, for curriculum decisions, certification policies, funding of programs and almost every other decision category. Teachers, individually and collectively, can look forward to extensive involvement in a number of the key decision areas mentioned above but the involvement will most likely be shared with other stakeholder groups such as trustees' associations, department of education, and universities.

3. The move towards professional status by teachers' associations has already added impetus to efforts extending the length of the total academic/professional program. It is, in addition, making an impact on preparation programs by underscoring the importance of planned integration of the components of teacher education programs. General academic studies serve as a background for specialized academic studies related to school curricula and both general and specialized studies serve as a base for professional studies.

4. A variety of program specializations has been introduced by teacher education institutions, partly in response to differentiated needs communicated by school systems and the profession and partly as a result of the institutions' perceptions of needs in the schools. Many of the program specializations are introduced at the graduate level; a significant number are introduced during the pre-certification phase and continued at the graduate level.

While needs communicated by the educational community may not be congruent with needs perceived by the preparation institution, ample evidence exists of continued indirect and direct influence by teachers and their associations in effecting changes in preparation programs. Teaching cultural minority children; teaching in small, isolated communities; teaching in open area schools; teaching with differentiated staffing, etc., are some examples of changes made.

5. There is a gathering of momentum to accept career-long preparation for teaching incorporating elements of pre-service, in-service, and continuing education. This is not a new concept to any of you; it is, however, a concept that has rarely been implemented in full. In-service and continuing education efforts are marred by hit-and-miss, spur-of-the-moment, sporadic, and dangling projects now in a field that is rapidly becoming politically competitive.

The Profession and the Public Schools

Time will allow reference to only a few major themes which mark the most significant attempts by teachers to influence the function, the operation, and the program quality of the public schools.

1. Assisting the community-at-large in identifying the goals of education involves a philosophical debate about the dominant purpose of education, i.e., society-centered, student-centered, or for education's sake, and of the role of the school in society.

Most teachers' associations accept society's responsibility for identifying the broad goals of education while pressing for the educator's prerogative in de-
fining specific objectives. Yet there are vocal and articulate proponents of the view that schools are agencies of reform and so the debate in a community arena is not likely to be one-sided.

2. Stemming from this philosophical discourse is a related theme focusing on curriculum and methodologies of instruction. Are the intellectual objectives to receive a re-emphasis in a teacher directed classroom situation or is the total development of students of many diverse talents and interests and utilizing directive and non-directive instructional strategies to continue in emphasis as it has during the past decade?

There have been in these comments many examples of events which are unique to the Canadian provinces; yet there have been common threads interwoven throughout the Canadian network and, in fact, the international one as well. As one views the activities and the interests of teachers' associations across Canada, one can observe a "coming-of-age" professionally. Yet professional maturity, while ensuring greater participation in all educational decisions, will lead to conflict and confrontation before the profession and other referent groups settle on their spheres of influence.
The Role of the Teaching Profession in Teacher Education

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A common assumption today is that the teaching profession should encompass all those professionally concerned with education, be they classroom teachers, administrators, university professors, state departments of education, accrediting agencies, or other relevant groups. If one accepts the premise that the teaching profession should play an active role in the training of teachers, then all in the profession should have some kind of contribution to the design and/or execution of teacher education programs in institutions of higher education.

Fragmented Views of Teacher Education

However, in the United States, at least, the teaching profession is often more narrowly defined, depending upon the constituency concerned and the situation at hand. For example, regarding instruction, we often tend to define profession as the classroom teacher. We characterize the service portion of the profession as universities and state departments of education, simply because most service is given by these groups. When we discuss research, we tend to think of research centers and universities as the teaching profession because these are the traditional loci of research.

Thus, research centers are seldom consulted by state departments when certification requirements are changed. In-service programs are increasingly being developed and implemented by the schools, often with little collaboration with universities and research centers. Each time a new issue arises in teacher education, the teaching profession is redefined. Those included in the category are there for the constituencies which they represent rather than for the knowledge which they can bring to the improvement of teacher education.

In specific situations or with specific issues, segments of the profession most affected by the situation, act upon it without regard to whether or not other facets of the profession may have contributions to make to the resolution of the problem. In effect, we redefine the profession in light of the specific problem or issue with which we are dealing at the moment. This means that the rest of the profession is uninformed, uninvolved, and underutilized. If the profession's boundaries keep shifting and different segments are not working together, how are decisions made on the improvement of teacher education? Obviously, they are made in isolation with incomplete knowledge of what the impact will be on the rest of the profession.

Power Blocs

These days, the world of teacher education appears to be something other than rational. It is exceedingly difficult to apply objective judgment to the
problems of program building in teacher education simply because, at least in the United States, we are preoccupied within our profession with problems of politics and power rather than with the contributions of knowledge and expertise. State departments of education are struggling to retain control of certification with too little concern for whether or not this improves the preparation of teachers. Similarly, higher education continues to cling to its past prerogatives with the vain hope that the good old days will return and their programs will again be relevant to the real world of the classroom.

The public, too, is not immune to this self-interest approach. Each parent supports fully what he wants for his child while at the same time believing that his neighbor's child is being treated too lavishly. The federal government seeks instant results because they are politically expedient, but is unwilling to fund the kind of basic research and investigation which is necessary for any lasting impact—any building of a viable knowledge base. In short, the focus is on self-interested control of certification, political control of accreditation, vested-interest control of teacher evaluation, and self-serving community involvement in policy formation.

Egalitarianism Run Wild

This emphasis on the political and the parochial is coupled with a strong trend in the direction of egalitarianism; that is, a condition in which numbers rather than knowledge, and power rather than expertise, are the basis upon which decisions are made. I recall a recent conversation in one of those ever-increasing negotiating sessions, in which the statement was made, “Surely you know more about this topic than we do, but there are more of us than there are of you, and we shall therefore control the decision, even if we are ignorant”!

Egalitarian decision-making is a dangerous precedent for our profession to be maneuvered into, since there are many other groups interested in educational problems; for example, parents and taxpayers, who clearly have less substantive knowledge than do teachers, but who clearly outnumber us.

Illustrations of this phenomenon are legion. One interpretation of the most recent federal legislation regarding the education of handicapped youth in the U.S.A., mandates that yearly educational plans be developed jointly by a teacher, a parent and a mentally retarded or otherwise handicapped child. If any one of these three participants is not satisfied with the plan, he or she has the prerogative of appealing to a non-professional adjudicator. This, in my opinion, is a bold illustration of the lack of esteem with which the expertise of today's professional educator is held. It would seem that the concept that “knowledge is power” is less true in the knowledge industry than in almost any other segment of society.

The burden of our message is that it is possible and desirable to rationally delineate a substantive relationship between the content needs of teacher education programs and the expertise resources of sub-groups within the education profession. We also contend that it is equally possible to delineate a process relationship between the contributor of the substance and the teacher edu-
TRENDS: Cyphert

cation programs as a whole which can and should be logically determined by the nature of the substance being contributed rather than by more extraneous factors such as political considerations.

Need for Coordinated Action

It is desirable to delineate relationships which grow out of the substantive contributions to the teacher education program in such ways that they are examinable and, following consideration, helpful in guiding the actions and expectations of participants.

In examining the method of decision making and the impetus for change in present American society, we are likely to conclude that the allocation of, 1) legal sanctions and responsibility, and 2) fiscal resources, are the twin forces which both influence an institution either to remain stable and unchanging, or to intervene to promote change and responsiveness. In other words, an institution's disinclination or inclination to change its teacher education program may be reinforced by fiscal decisions made by the resource allocators, and these decisions are often made without consulting the teaching profession.

The money-givers are never going to allocate resources for teacher education in a manner consistent with our best judgment unless we, that is the entire teaching profession, are both rational collaborators. Because the profession is internally fragmented, the allocators of resources often feel compelled to make unilateral decisions on the direction of their emphasis because the teaching profession cannot advise them from a consistent unified position. At this point, it seems to me, we have two choices. We can continue our present practice of merely reflecting the policy and process of the moneylenders. This, in effect, makes the resource allocators at best accidental catalysts for change. Or we can develop a position of unified rational leadership within the profession, making us thoughtful, purposeful catalysts for change. We need to speak with one voice and from the strength of our substantive knowledge. Until we begin to attack the problems that face teacher education on the basis of knowledge and collaboration rather than by our present system of self-interested power groups struggling in opposing directions, the substantive educational questions will remain unanswered, and control of resources will increasingly replace knowledge and expertise as the shaping force in teacher education.
The Changing Role of Teachers in the New Delivery System

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(The Southeast Asian Ministers of Education Organization (SEAMEO), assigned to the Center for Educational Innovation and Technology, has the responsibility for carrying out a number of educational experiments in mass primary education. Among these is IMPACT conducted in Indonesia and the Philippines.)

Project IMPACT

Project IMPACT is a management system whereby the role of the teacher is changed from that of being a classroom instructor to that of being a manager (called an "Instructional Supervisor") of learning experiences which can be gained in a variety of ways, i.e., self-instruction by community volunteers, tutorials by post-primary graduates, and monitoring by parents. IMPACT eliminates the schoolroom, for the most part, and concentrates activities in a Community Learning Center. Learning is self-paced and ungraded and is open to people of all ages. Dropouts are encouraged to take up their primary education again through the modular IMPACT system in which most of the learning can take place through home self-instruction. Per pupil costs are substantially reduced by a significant increase in the number of students whose learning is managed by the instructional supervisor. The monies saved can be applied to improved quality of instruction and to providing places for a substantial increase in enrollment.

Rationale

The main rationale leading to the design of Project IMPACT includes the following:
• approximately one-half of children in SEAMEO countries do not complete 4-5 years of primary education,
• this condition is most prevalent in rural communities in which some 70% of the population lives,
• educational budgets are already strained, and the direction of INNOTECH research should not concern ways to add to costs,
• traditional means of education (teachers, classrooms, etc.) cannot simply be expanded because funds are not available,
• mass media such as TV is still expensive and therefore rather limited as a means for delivery of rural primary education, especially where time and money are major constraints,
• 80% to 90% of educational costs are those associated with teachers,
• ways must be found to increase (rather than to decrease) the student-teacher ratios (perhaps even to as much as 200:1),
TRENDS: Surakhnad

- With increased student-teacher ratios, classroom teaching is unlikely, and the role of the teacher may change to one of managing educational experiences.
- Inexpensive community resources of all kinds (parents, skilled workers, older students, materials, buildings, etc.) should be utilized.
- Students/parents may have to be responsible (self-directed) in taking advantage of educational opportunities.
- Most learning may have to be self-instructional under the management of the teacher, and under the tutoring of parents, community members and older children, and
- A means should be provided for individual learning rates and exit and re-entry into the educational system at any time (as one means to avoid dropouts and leftouts).

Procedures

From this thinking the original design of Project IMPACT has been developed. The acronym for IMPACT is appropriate: Instructional Management by Parents, Community and Teachers. IMPACT, though innovative, is basically a management system of instructional/learning procedures that themselves have been tried and proven successful elsewhere.

1. An instructional supervisor represents the only institutionally trained professional educator. The traditional teacher’s role is eliminated, and the instructional supervisor acts as a manager of instruction providing the needed direction and organization in the use of a variety of learning resources. The target is that one instructional supervisor should be able to manage the instruction of about 200 primary students.

2. Community members with particular skills (carpentry, homemaking, agriculture, health, religion, etc.) would be enlisted to provide specialized instruction. They probably are unpaid volunteers who have been recruited by the instructional supervisor on the basis of a survey of community resources in relation to educational needs.

3. Other volunteer community members and older students, who are primary school graduates, would be trained by the instructional supervisor to conduct specific courses, i.e., beginning reading on a part-time basis. Their training would be very specific to the course they teach, and they probably would function as programmed teachers. Some could assist in the operation of the community learning center, including record keeping and evaluating student progress.

4. Older students would all be expected to assist younger students through tutorials and remedial instruction. They would be unpaid.

5. Parents would be trained to monitor the instructional activities of their own children and be expected to take responsibility for their children's progress. Students and parents jointly would be self-directed in terms of student progress, age of beginning formal education and age of completion.
6. There probably would be no particular age limits. Except for learning reading skills, students would not be encouraged to begin at an early age.

7. Education would be modular, each learning module covering the amount of instruction that would normally take one to two weeks. Each module would be designed for the learning of specific educational objectives and would contain both a readiness test and a post-test.

8. Many modules would be in the form of individualized instructional packages. Students typically would seek tutorial help from assigned older students whenever they experience difficulty.

9. Some learning modules would be in the form of small-group instruction under the direction of teacher's aides from the community. Others could be instructional radio programs.

10. Printed modular materials would be reusable by other students as soon as they are completed by those who progress more rapidly.

11. There would be very few set class periods. Students would be able to drop out and reenter at any time.

12. Primary education would be ungraded; progress would be indicated by learning modules satisfactorily completed rather than by school levels (grades).

13. All materials and records would be maintained in the community learning center.

Research Design

For our research activities, we located two "village clusters" for experimental purposes in the rural areas of the Philippines and Indonesia. In the Philippines, five villages are included near the town of Naga on the Island of Cebu. In Indonesia, four villages are included near Solo in Central Java. The number of primary-school-age children at each site is about 1200.

One major activity in the beginning of the project is to develop 4th grade instructional modules, trying them out in draft and revising before production. (At least one-half year of learning modules must be readied before beginning the formal experiment. This is necessary because most of the modules will be self-paced, and we anticipate that some children will accelerate faster than others.)

Next in our step is to begin "in-school" operations at the 4th grade.

- initially include only two subjects, the national language plus one other, so that teachers, children and staff will not be overloaded and will be able to help students having early difficulties,
- initially the teacher will play all roles of instructional supervisor, monitoring parent and tutor (solely in the classroom), and will be assisted by project staff,
- once procedures in the classroom are working well and all involved are comfortable in their roles, modules will be assigned as "homework" and parents will be instructed in the means to monitor their children's learning
TRENDS: Surakhmad

activities (progress charts will be maintained at both the learning center and at each home so that parents can follow their children's program), and

- once the homework assignments are working well, older students will be trained to take over the tutorial duties previously done by the teacher.

At this point, the core IMPACT system will be operable at the 4th grade in two subjects.

- moving to the next step, Project IMPACT then includes all subjects in every school at the 4th grade,
- identify community volunteers with special skills to assist in specific types of instruction,
- develop 5th and 6th grade learning modules, introduce them into the system at all schools, and eliminate class schedules for these three grades,
- then the time comes to begin comparative evaluations with control schools,
- develop learning materials and procedures for the 1st through 3rd grades, noting that more verbal and group instruction probably will be needed until children can read simple modular material and can be relatively self-directed in their learning,
- initiate IMPACT system in all schools for the complete primary curriculum,
- invite persons of all ages to take part in the IMPACT learning process,
- develop an upgrading course for teachers to become instructional supervisors,
- prepare a planning document for the expansion of the system to other sites, and
- work with school authorities to increase the student/teacher ratio by transferring present teachers to other positions.

Implications

Even if the final system will differ in many ways from that projected in the project description, the key element that will be maintained is the changed role of the teacher into that of a manager of all learning experience of a large number of students. It will be thus that IMPACT is expected to succeed in providing effective primary education at a substantial reduction in per-pupil cost, and it will be thus that resources can be freed to allow a significantly larger number of persons (young and old) access to a complete primary education. IMPACT can provide the marriage of formal and nonformal education, involving the whole community in the endeavor to upgrade educational opportunity.

The impact of Project IMPACT, however, will lie in SEAMEO's ability to adapt it to different countries, cultures and demographically different communities (including urban).
The Role of the Teaching Profession in Teacher Education: 
The Perspective of the Organized Profession

WILLIAM EBERT
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of the Teaching Profession (WCOTP)

The organized profession is concerned with teacher education in all its aspects, pre-service and in-service, university and college based, general pedagogical and specialist. Whereas the aim of WCOTP is to see teacher education for all at a university level we must recognize that in 1976 in very many countries the majority of teachers, whatever their desires may be, do not have the opportunity for education at a substantive higher education level.

Need for Teacher Involvement in Policy Making

The basic concern of the organized profession is for teacher organization involvement in the determination of teacher education policy and practice and not only individual participation by teachers however competent they may be personally. Organizational involvement is essential both to give the benefit of collective experience and to make available the vital transmission machinery which only the organization can provide.

Organizational involvement is both professional and political in character. The 1975 assembly of delegates of WCOTP defined this political involvement as "participation in the decision making process." I speak not of political parties, nor do I believe we can ignore political parties.

The nature of the involvement varies according to whether the national educational system is centralized or organized locally. Structurally it is easier in many cases in a centralized system; practically it may be more effective in most instances under local control. In either case the involvement is only truly effective if the profession is united and not divided into pre-school, primary, secondary and teacher education.

In a study carried out some years ago by UNESCO, in cooperation with international teacher organizations, it was clear that on paper teacher organizations are involved in many countries in the formulation of recruitment policy and the organization of the training of further education of teachers. An appearance is given of participation whereas in practice the involvement often amounts to a process of consultation after decisions have already been taken. This is not what we seek.

We seek equal participation for teacher representatives, teacher educators and administrators, within the framework of agreed political goals, because, as was defined at a recent WCOTP seminar in Luxembourg:

a) Teachers have a far-reaching knowledge and experience of the needs of the situation and the life of educational institutions,
b) No educational reform can be effective without the agreement and collaboration of practising teachers, and
c) The decisions taken about education affect the conditions of service of the teaching profession.

**Balance Between Professional and Political Concerns**

The balance between the professional and political concerns of the organized profession can be clearly illustrated by examples in the fields of pre-service education, in-service education, and educational reform.

In the field of pre-service education, the organized profession seeks a greater **recognition of classroom experience as "expertise"** and use of the teacher organizations as a **machinery for feedback** into academic training programs so as to relate as closely as possible theory and practice in the field of teacher education. All too frequently, our members feel, rightly or wrongly, that teacher education is promoted for its own sake without sufficient concern for the circumstances under which it is practised. This is particularly true in regard to university-based teacher education.

The political involvement in this area is related toward the **balance between supply and demand** and the optimum use of available personnel and to influencing the actions of the authorities to provide the necessary economic support for the practice of education in satisfactory conditions. The question of class size is a major preoccupation of teacher organizations around the world.

In the field of in-service education, teacher organizations in many countries are concerned professionally with the **promotion of programs of their own for the professional development of their members**. Teacher organizations have been actively associated in the development of **teachers' centers** and in the involvement of their members in programs to aid their colleagues, especially new entrants to the profession. We wish to see such programs developed in close cooperation with teacher educators so that the machinery of the teacher organization can be effectively used to **confront their members with new developments in educational theory and methods**. The feedback which can be promoted through such an exercise will be of immense value to teacher education as a whole. It will prevent—or at least minimize—the danger of a type of in-breeding.

In the political field we again see the need for teacher organizations to press for greater provision for in-service education of their members. Such education serves a variety of purposes. Five such objectives were identified by a WCOTP seminar on in-service education in Berlin in 1970—upgrading, introduction of new methods, improvement in subject matter competence, retraining when reform so requires, and reorganization of the school system.

We believe that if teachers are to be up-to-date in their daily work they must be provided with adequate opportunities for development—and even for rethinking of their own practice away from the everpresent pressure of 30, 40, 50, or 60 children awaiting them at 8 or 9 each morning.
We hear much these days of the potential benefits of less pre-service education and more in-service training after teachers have had a measure of practical experience. The organized profession fights against these trends not necessarily because they believe the concept is wrong in theory but because of its belief that only on the basis of a sound pre-service education can in-service education reach its full potential and because of past experience which indicates clearly that when economies are necessary in-service education which will be reduced—and reduced first. It is all too easy to say that such in-service provision is desirable every four years or could be every five years or maybe every six years or... If the teacher is doing what appears to be a competent job, such delays seem a solution to an economic constraint.

In the field of educational reform, the organized profession presses for teacher involvement in the firm belief that teachers, working collectively, must be involved in the evolution of educational changes, if they are to be committed to its realization in the classroom. Without such commitment all the efforts of the authorities (and of teacher educators) will fail to realize their full potential—if not fail completely.

We seek such involvement so that the members of the teaching profession may engage in permanent dialogue with their colleagues in teacher education. Such dialogue is essential if we are to reduce resistance to the application in the educational process of the very considerable advances in theory and practice which have been developed by teacher education institutions and will be developed even more in the future.

Changing Concepts

Many educational concepts are changing and the function of educators within the society is evolving. The school is recognized as a part, albeit an essential part, of a continuum of learning which affects all people at all stages of their life. The school has opened its doors to society and this process will continue in years ahead. Teachers are being called upon to fulfill the role of management within school systems and even in non-school educational programs. management can only be effectively carried out by educators and not by political appointees. All this means the professional educator will fulfill a different function within the society of tomorrow in different ways, in different countries than he or she does today.

Teacher education must therefore evolve to take account of the social objectives of education in its broader concept and not only those of school or college education in a limited sphere. Academic qualifications will not be sufficient to equip the teachers of the future, nor will pedagogical competence be enough. The educator needs to have a general competence in social affairs with a particular competence in the promotion of the teaching-learning process.

Is the teacher equipped to play this function on the basis of the teacher education of today, be it in university or in college? We believe not. We believe that a fundamental change needs to be made in teacher education. The fundamental problem with which we are faced today is the discrepancy between
theory and practice which can be overcome or by an active cooperation between teacher educators and the organized profession.
Change in Teacher Education: Purpose, Process and Priorities

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Adaptive Change

Change, in general, comes about in two ways: first, as the inevitable consequence of a conspiracy of events, such as those changes which take place within a subsystem because of changes in the larger system. Such a change does not take initiative; it is externally imposed; the system, disturbed by change seeks the earliest possible opportunity to regain an equilibrium which rests on the closest approximation to its original and traditional status.

There are many examples of this kind of change in teacher education. In the aftermath of the last war, when, in the developing countries, the level of individual aspiration rose with the promise of equality of educational opportunity, enrollments in schools took a sharp upward turn as a result of unprecedented demand. In their turn, teacher training institutions were forced to produce more teachers than their capacity permitted. The methods used to meet the need to change were entirely adaptive, without any application of creative insight as to the purpose and content of training. Thus the more teachers there were who had to be trained, the shorter became the period of training. Insofar as content was concerned, academic preparation was reduced to a minimum requiring competence at an academic level of only one school grade beyond that of those to be taught. The proportion of time spent on theory in relation to practice was made suitably adjustable according to the dictates of the consumers of the products—in most cases, the consumers were the government ministries of education. Theory increased, while practice diminished in proportion to distance from the center of training. Thus, distance learning through correspondence courses (as in Indonesia) required no supervised practice at all; in Malaysia and Singapore, theory was reduced drastically in order to put trainees in the classrooms as early as possible.

In more recent years, attempts have been made to change the approach to the demand for enhanced teacher supply through the use of satellites in training (as in India) or the use of multimedia training packages combined with distance learning (as in Iran). These changes per se may lead to little perceived differences between teachers trained under these methods and those trained through crash programs. A cost benefit analysis may even prove that traditional crash programs are cheaper.

Adaptive change without creative response is inadequate. Yet this continues to characterize teacher education. Two more contemporary examples can be given. The first is that which is associated with the extended role of the teacher, the second with the knowledge explosion.

Musgrove and Taylor in their book have given numerous references to evidence provided by various scholars in England that the role of the teacher to-
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day is "necessarily diffuse... that teachers must put themselves into their work at a time when other professional roles are becoming 'affectively neutral': that the demands made upon them become more diverse as they take over more of the duties of parents; and yet, the requirements of the job, and particularly the criteria of success are often ambiguous, conflicting, lacking in definition in that different people affected by and concerned with the teacher's work may make different and conflicting demands upon him... that the extension of the job to duties other than classroom teaching, to clerical work and school meals supervision, constituted a major source of grievance."

Though these findings are the results of studies made within a British context, the representation of the teacher's role as diffuse may well apply to all countries. Even in developing ones the teaching ranks generally suffer such acute manpower shortage, through the expansion of the educational system out of all proportion to resources, that a teacher has sometimes to assume such diverse roles as that of community leader, muse and even doctor. The only differences between countries may lie in the degree to which the teacher is under restraint from the dictates of others.

Add to these roles the new demands in terms of attitudes to be taught apropos consumerism, drug use, multiculturalism, ethical values and yet more besides.

But to what extent are these increasing roles and tasks to be accepted as legitimate? Are there priorities in need and emphasis? Does the capacity exist to accept? Are there alternative modes for the fulfillment of society's expectations so freely deemed the teacher's responsibility? Should society and its other institutions—the religious, the family, etc.—be absolved from all responsibility?

These questions imply the need to ask how the pre-service years of teacher education should take note of these demands. Should the limits to the purpose of teacher education be defined for teacher training institutions entirely by external pressures, or should training colleges and departments assert a more dynamic role in the assessment and definition of task and purpose, of role and function?

Personally, I do not think that as a group we have sufficiently thought through this problem. We have tried to respond through the training of specialists—counsellors, psychologists, social workers, parents surrogate, and parapersonnel—in addition to the subject specialists already in the field. There may be danger in the fact that the more we multiply specialists, the more difficult it may become for children to relate to adults in a meaningful way. The relationship, whether with the counsellor, the psychologist, the social worker or any other specialist, would normally be appointment-based. However good may be the rapport that is established, the warmth of a sustained relationship similar to that within the normal setting of study, work or play would be difficult to maintain.

At our Institute in Singapore, we prefer to view the problem of change from a different perspective. We do not see teachers left as a single force to cope
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with all the demands relating to the education of children. Society can listen if we have a message. Thus the Institute has taken the first steps towards a relationship with the community, the home and the world or work. For the community, the Institute assists with the training of youth instructors based in community centers. These will, in their turn, teach teenagers the healthfulness of play and woo them to wholesome pursuits. We open our doors to industry and help to train instructors whose main task will be the education of workers in desirable work habits and the upgrading of their knowledge and skills. A program to bring mothers of pre-school children into an experimental course to help them to relate to pre-school teachers and complement their work at home, through the proper guidance of their children, is about to begin.

One more example of adaptive rather than creative change may be seen in the approach to career-long teacher education. The knowledge explosion and the constantly changing environment have raised the issue of rapid obsolescence. It is well understood by all that a once-for-all training will no longer serve. The logical notion is that the span of a career should be punctuated by periods of study—a return to center, as it were, to renew and update knowledge and practice. While this need is recognized, there has as yet been no attempt to define what might constitute a basic, irreducible minimum of a first training and what would comprise the units of the sequence. For example, the skill of learning to learn must certainly be demonstrated and taught from the start; also new knowledge components (both academic and professional) would need to be incorporated in successive units. If pre-service training were no longer to be regarded as terminal, would the longer pre-service courses be necessary?

In each case of the three examples of adaptive change given above, the following elements appear as common:
   a) the change is a mere happening among happenings,
   b) the basic reasons for change have not been analyzed, and
   c) the purpose of change is not well defined.

Predictably, in the first case, the application of technology to teacher production could lead to more efficient multiplication of the less than efficient end-products of a traditional system. In the second, the diffuse roles of teachers could lead to diffuse perceptions on the part of pupils. In the third case, what is likely to result is the continuance of the traditional in-service courses disguised in new terminology.

Huberman\(^1\) has suggested that "the educational system is too often prone to change in appearance as a substitute for change in substance."

Creative Change

So far I have discussed only one type of change. The second is best explained by borrowing a statement taken from the report\(^1\) of a conference for the implementation of educational innovations:

"Innovation is . . . the creative selection, organization and utilization of human and material resources in new and unique ways which will result
in the attainment of a higher level of achievement for the defined goals and objectives."

Here, change described as innovation is characterized by autonomy (able to exercise creative selection), purposefulness (able to organize), application (able to utilize human and material resources in new and unique ways) and a measurable end-product.

This kind of change is more desirable than the first in that it is more deliberate. Goals and objectives are a sine qua non and an aim is set giving direction to the activity. To quote Huberman again:

"Innovation as a purposeful process brings us into the realm of social-technology, the devising of the most effective combination of means to bring about specific ends. This is reflected in the preoccupation of international seminars with the ‘management of education’ and ‘strategies of change’ on the premise that change in education ‘can no longer be left to casual initiatives by separate groups and persons’.

With respect to innovative change Huberman does not belabor the point of "newness and uniqueness." It is seldom that change in education possesses this quality. Tenacity of purpose with a holding power in the direction of choice until it has been accepted and adopted would be the evidence of successful change.

In my own country, a good example of this has been the acceptance of bilingualism as one of the means to the understanding of multiculturalism and to the realization of the goal of national unity. When first introduced, there were the usual "discomforts" within the system—lack of teachers who were good "models" of speech; reluctant parents who perceived their children as nothing more than guinea-pigs for experimentation; resentful attitudes encountered, since admission that a second language was necessary, meant that the language of one's own choice was inadequate in context. To compound this issue, schools had been set up in four languages—Chinese, Tamil, Malay, English—so that parents could send children for education in the medium of their choice. This multiplied the possible number of bilingual combinations.

Right from the start, however, the objective of this measure was clearly stated through political manifestos and through regulatory school directives. It had to be translated into action. The teacher-training institution became multilingual to cater to this need and included bilingual competency as an objective for each of the teachers it trained. In the course of fifteen years, rapid industrialization and the advent of multinational corporations in a country rich only in human resources have helped to persuade parents that bilingualism would be necessary if survival were an important consideration—particularly, bilingualism in English and the mother tongue. Thus by a fortunate combination of events, the number of possible bilingual combinations has been reduced to two, mother-tongue-cum-English-type situations, although English has never been insisted upon as a compulsory language, whether as first or second language.
The consideration of definitive direction and purpose leads to the need to examine processes which make innovation "take". Here one sees three important elements relating to one another and to the environment. Weakness or failure in any of the relationships may bring about failure in achieving the objectives of change. Broadly speaking, agents at all levels of change should understand clearly the import and content of the change. Take, for example, the statements made of the competency-based accountability movement in the U.S.:

"...very few of those who espouse it or who are preparing to enter into it are well enough aware of its complexity and demands. Like most educational notions this one has not been fully conceptualised and simulated ...", and at conclusion, "the variety of feelings expressed here are indicative of the difficulty of arriving at a consensus. The fact that we can't agree on direction should make the future of teacher education most interesting."

I might add, "frustrating", depending on how important goals are to the agents. The remarks quoted above were made in 1973. If in 1976, the meaning of CBTE becomes clearer, the situation would be more hopeful.

The content of change should be coherent. This includes a specification of the desired level of achievement, a clear indication of the likely benefits of change and how these benefits would be distributed.

The more coherent the content, the more satisfied would be the agents and the better could become the planning and management techniques to monitor change. With respect to this, planners and initiators should give due regard to types of agents who will serve as implementers—some are imitators, others despair from the start, yet others possess creative initiative. In the Singapore experience, as I have discussed elsewhere, the following factors have been found essential as part of strategy to ensure that implementation occurs according to plan:

a) maintenance of clear communication lines between innovating agents and implementers,
b) specific steps to ensure that the objectives of change are evident to and perceived to be worthwhile by all,
c) a degree of flexibility for the more committed implementers,
d) close attention to the needs and successes of implementers, and
e) availability of the implementer of feedback on the progress of change.

Interaction between the three elements, each with each and each with the environment produces process. But this is not enough. A worthwhile change also has built-in concern for the clients it serves. In the excitement of planning for change, it is not unusual to find the innovator falling in love with his own designs and forgetting about his clients.

While it has been advocated that change should be evaluated against its goals and objectives, it is not always possible to so evaluate change in all its aspects. Even change which does not take, may produce highly desirable, yet un-
anticipated derivatives. Thus monitoring the process of change is important as a device to prevent any part of phase of development to escape unnoticed.

**Needed Changes in Teacher Education**

Finally, let me pass on the change priorities in teacher education.

I do not think that we are too clear about what should go into a teacher education course. The fact that we do not and cannot speak with one voice about selection procedures, about the prerequisites of academic preparation, about what might constitute the content of training in the first of a continuing education series, about what is implied in methodologies, about the tasks which teachers might be expected reasonably to accept, and so on marks us out as those who are not fully professionals. Emphases may differ according to varying needs, but there must be a distinctive core of content which will establish the hallmark of our products. Right now, it would seem as though, given a long enough period for an untrained teacher to flounder and to find his depth in the school situation, he will end up with the necessary skills through self-learning, though at the beginning he may seem to be less capable than the trained teacher. If a profession were a matter of life and death then teacher educators would be ready to examine their practice and if the evidence showed that in the long run, what they spent years to teach, could be learnt without teaching, they would be ready to phase themselves out of their present concern with education.

Our first priority must therefore be self-evaluation. With this as a baseline we would need to be definitive and plan for improvement. Three areas require immediate attention: teaching methods, theory of education, and roles—the teacher's and those of the teacher's college.

What of the roles of the teacher’s college or of the education department in the university? We may examine whether the training of teachers and the conduct of educational research should be our only role. Where do we stand among the forces which control the direction of education? What relationships should now be forged with other institutions? What leadership can we give in non-formal education? These and many other related questions need to be answered.

**References**

The International Future of Teacher Education: The New Revolution

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Until fairly recently, many American educators saw international affairs as something the Department of State was responsible for, while educational affairs were something they were responsible for. I am sure that also until recently in the 75 countries currently active in the private, professional, cooperative and multinational programs of ICET, the same situation prevailed—that educators around the world, too, saw international affairs as something their Ministries of Foreign Affairs took care of while teaching the 650 million youth now in schools around the world was their own business.

This was, of course, a highly unrealistic point of view. And while it held, it made it harder for us—professional educators like yourselves, foreign affairs specialists like myself—to learn from one another. But since then, the economic and technological facts of life in our biosphere have brought home to everyone around the globe the interrelatedness which is the most obvious feature of human society today in all continents, all countries. The old stereotypes of we and they have changed. We now know that the most powerful reality today is change itself and the greatest virtue is to be found in responding creatively, on the basis of continuously reexamined value systems, to the flood of changes, perceptively assessed.

The ever-accelerating forces of modernization confront us all with problems, opportunities and interrelationships on a scale unprecedented in human history. These linkages—political, economic, technological, social, ethical, spiritual—can intensify conflict in a time when violence increasingly endangers us all—or they can provide us breathtaking possibilities to advance our common aims for sustained world peace. "In the long sweep of history," Secretary Kissinger pointed out in his recent speech in Nairobi, "the future of peace and progress may be most decisively determined by our response to the necessities imposed by our interdependence."

Global Perspectives

Education around the world has always acknowledged the importance of social change, and now educators begin to aspire to a global perspective in encouraging learning about social change and all other aspects of human affairs. The reason is compelling. Regardless of political or economic ideology, regardless of religious belief, regardless of social or ethnic or language group, regardless of institutional or disciplinary affiliation, none of us can any longer realistically describe reality except from a global perspective.

The international and national surveys on innovative developments in education which your Council has sponsored, show us that we cannot expect this
global perspective to develop spontaneously once the student leaves the classroom to begin his or her professional career. Rather it must, instead, begin to be taught at the elementary as well as the secondary school level, and to achieve this there is no substitute for it to be a basic dimension of the education and training of all teachers.

For without a teacher whose own sense of proportion—whose own reality world—is global and whose own awareness takes into account the linkages of nations, societies, interest groups, languages and cultures, there is little chance of a global perspective to develop in a student.

Robert G. Hanvey, in a recent study published by the Center for War/Peace Studies, entitled "An Attainable Global Perspective," suggests our schools should be doing—and quite readily can do—much more toward providing their graduates with a deeper understanding of our increasingly interdependent world. "The schools," says Hanvey, "must select a niche that complements the other educative agencies of society. To the extent that those other agencies and influences work against a global perspective, the schools can perform a corrective function. To the extent that the other agencies have blind spots, the schools can work to supply the missing detail. To the extent that the other agencies direct the attention to the short-term extraordinary event, the schools can assert the value of examining the long-term situation or trend (which is sometimes extraordinary in its own right)."

Those other agencies to which Hanvey refers are first of all the mass media. For "schools" in Hanvey's thesis, I think we could very well substitute "teachers." What he has said with exceptional clarity and force is that the crucial precondition for coping with the world's problems is a new way of looking at reality—a way which can be taught, which must be taught. It implies an enormous responsibility in the teaching professions for developing the essential human capabilities to cope with large-scale conflict and to build large-scale cooperation—in other words for peace in the world.

It is gratifying therefore to see develop through the imaginative initiatives of your Council, a worldwide community of teacher educators alert to the new imperatives of transnational relationship and understanding. "You have made this community of teacher educators one of your primary goals is, it seems to me, one of the most positive steps that could be taken anywhere toward reconstituting the broader human community. And who can doubt that its reconstitution is not vital?"

Among specialists in world affairs, there seems to be a growing consensus that we must speedily create vastly improved systems of education and new patterns of communication, contributing to a far more favorable climate for diplomacy for international and transnational problem solving, conciliation and cooperation—or we simply will not be able to manage the problems already upon us.

Journals of political and social analysis are heavy with predictions of gloom and doom, and the editors may very well be right. What we seem to have is a world system whose intricate parts are moving with greater and greater veloci-