This annual report contains five speeches presented at the International Council on Education for Teaching Conference in Sydney, Australia in August, 1970. Titles and authors of the speeches are 1) "New Developments in Education for the Seventies" by Seth Spaulding, 2) "The Uses and Abuses of Diversity in Teacher Education" by Harry S. Broudy, 3) "Curriculum Evaluation in Teacher Education in Malaysia" by R. Vivekananda and Sim Wong Kooi, 4) "Reflections on Education in the Emerging World by a Politician-Educator" by Robert W. Thompson, and 5) "Teacher Education in Jamaica" by Glenville H. Owen. (RT)
TEACHER EDUCATION 1970

International Perspectives on Theory and Practice

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From the President's Pen

As a fitting inauguration of the Seventies, the International Education Year programs of ICET were of a regional nature, spanning the continents of Asia, Australia and North America, and bringing together educators from dozens of countries. The success of the meetings in Malaysia, Australia and Canada derived from the energy and foresight of our colleagues who provided the setting, structure and focus for international deliberations on specific issues facing teacher education.

The meeting in Sydney reaffirmed that there is a role for ICET within the larger framework of WCOTP and other international organizations. The exchange of ideas and the mutually supportive efforts to resolve educational problems were particularly evident during this conference. The opportunity to engage Australian educators in the worldwide activities was especially useful and led to discussions regarding the establishment of national and regional organizations devoted to the improvement of teacher education.

Kuala Lumpur marked the second Asian conference in as many years in which teacher educators from Malaysia, Thailand, the Philippines, Singapore, Indonesia, Canada, Australia, and the United States met to discuss innovation and change in teacher education. This means that ICET now has a nucleus of dedicated teacher educators in Southeast Asia and that the establishment of a regional association is being discussed. The tremendous distances and difficult communications complicate definite action, but the enthusiasm, support, and outstanding performance of our widespread colleagues are reason enough for optimism for the future.

The one meeting held in the western hemisphere was a tremendous success in that it brought together specialists in international education and developmental economics to reassess some of the more traditional roles, programs, and attitudes that have grown out of the last twenty years of worldwide technical assistance. Representatives from Canada's teacher education community were joined in Lethbridge by delegates from their Parliament and government agencies to create a most lively series of discussions and talks on their changing role with respect to the recipients of technical assistance in teacher education and to problems of ethnic minorities. It was generally agreed that the Canadians as well as their guests from the United States benefitted greatly from the uninhibited critical exchanges.

The challenges of International Education Year are an integral part of the lives and duties of all of us involved in the education of teachers. We have the responsibility of establishing by our cooperative efforts an international vehicle for these special concerns. I sense a real stirring within our ranks and look forward to an enlarged and more active ICET for the Seventies. It is with pride that I present you with this ICET Report for 1970 as an example of the future we anticipate for teacher education and for the International Council on Education for Teaching.

David J. Johnston
President
New Developments in Education for the Seventies

SETH SPAULDING
Director, Department of School and Higher Education, UNESCO

There are specialists these days who call themselves futurologists; they believe that they can put together trends of today and of the recent past in order to predict with some accuracy what the world will be like in years hence.

I do not, today, intend to try to predict precisely what education will look like in any country during the next ten years. But it might be entertaining to take a look at what people engaged in educational speculation are talking about today and what this might mean for changes in the future.

The Critical Issues

Some of the big issues are abundantly clear. Within each country, there is a demand for more education of a higher quality for all. Despite the phenomenal growth in educational opportunity during the past quarter century, despite the fact that many countries are spending more than a quarter of their national budgets on education, despite the fact that education is the largest single social expenditure in the budget of most governments, there is still widespread disenchantment with the way the educational enterprise goes about its business.

There is increasing concern as we enter the second development decade that the educational expenditure of governments does not contribute as fully as it should to economic and social improvement of each country. In many countries, drop-out, repeater, and wastage rates are so high that it takes the equivalent of fifteen or more years of classroom space and teacher effort for each student who finishes fifth or sixth grade. This means that in such systems up to two-thirds of the expenditure in primary schooling is largely wasted.

In many systems, only a small fraction of teachers can be considered qualified by modern standards of teacher training and preparation. And that small fraction is usually found in urban areas, leaving the rural areas with teachers who cannot get jobs in the cities. And yet many nations are staking their future on the development of rural areas, on the improvement of agricultural industries, on the eighty percent or more of their people who live in rural communities.

All countries are concerned that the curriculum may not be relevant to the needs of the students or the country. The curriculum changes slowly and still deals too much with memorization of the past when it should be dealing with the behavior necessary to mold the future. Probably a third of the technical specialties performed by workers in an industrialized country did not exist twenty-five years ago. As many as one-half the technical specialties which will exist in the early years of the next century do not exist today. Yet we must teach students now who will be at the peaks of their careers in the first quarter of the next century. What should we teach children that will prepare them for work that does not yet exist?

Whatever we teach, there is some suspicion that we teach it poorly. Some psychologists claim that it should be possible to teach a twelve-year old child in six months everything that most children learn in the previous six years. Others say we start too late—that children easily can learn to read at

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age twelve level before they are six years old. Others tell us that education should start at birth or even before the child is born.

These extreme positions may not be incompatible. There may be new teaching and learning methods and ways of organizing the teaching and learning environment so that many children can progress far beyond what is normally required at each educational level. Certainly, much of what happens to a child in the course of a school day hardly can be said to contribute to productive educational goals. And certainly much can be done to make learning more pleasant and satisfying so that children will be eager to progress rapidly.

Whatever we teach, however we teach it, and whatever the physical facilities may be, there is concern that opportunity is limited to children who are lucky enough or motivated enough to go to school when they are young. Life-long education is the key-word of the future. But life-long education is, so far, simply a good idea wrapped in rhetoric. What kind of new educational center will we need to cater to the needs and interests of people of all ages? What kinds of new teaching and learning resources will these centers have? The variety of functions and approaches of such institutions will require total re-thinking of what an educational center looks like and radically new kinds of staff to run them.

Finally, most countries are worried about the way we plan our education and the way we manage what we plan. Some have said that most industries would go bankrupt if run as education systems are run. Many educational planning offices are low-level statistical units, keeping records that should be done by a clerk. The business of building models of alternate systems of the future and of the kinds of sophisticated yet feasible approaches implied by these alternate systems seems to confound the planners as much as anyone else.

On the management side, school systems range from total delegation of authority and near anarchy to no delegation. Some school administrators spend all their time trying to avoid small mistakes. Some school supervisors worry about keeping books locked up, but tolerate impossible teaching.

These and similar issues are on the mind of us all. Innovation and change are the by-words of the day. We are not without ideas as to things that need changing in education, but we are a long way from having truly innovative and feasible new models of what education should look like and the tough business of knowing how to get innovation moving in school systems.

Contemporary Theoretical Responses

For generations we have been exhorting teachers to set goals and objectives and then to teach towards these goals and objectives. Only within the last decade or so, however, have psychologists and educational technologists forced educators and academicians to begin defining more specifically the behavior patterns we are trying to teach in school. This has forced great attention on the individual student, with parallel stress on individualized rather than group-based instruction. We are all now familiar with the assertion of the behavioral psychologist that if the student does not learn, it is not the fault of the student, it is the fault of the teacher or of the educational system.

To one degree or another, we all accept this basic principle. The question is how, in a mass system of education, can you create the kind of learning-teaching environment in which at least the basic skills, attitudes and knowledges we wish to teach are specified in great detail, and in which each individual can have an infinite variety of alternatives so that he can learn in his style and at his own speed?
Specialists in innovation and institutional change are calling for the system to modify itself to accommodate performance expectancies rather than time expectancies for program completion. What this means is that if we are going to teach towards specific behavioral objectives and in a way so that the student can proceed at his own pace, we must structure the system to keep track of when the student has acquired each behavior. It is not relevant to talk in terms of so many years of mathematics, language, science or what have you. Obviously, traditional concepts of how we test, evaluate and store information on each student's performance are largely irrelevant in a performance oriented approach.

A number of prototype models suggest that courses be broken up into dozens or hundreds of task units, each with built-in evaluation. A student can perform each task unit in any way he wishes, through individual study, listening to lectures or using programmed instruction materials, and when he can demonstrate that he has successfully completed the task, this is noted. In the aggregate, this would mean that a degree or certificate at any educational level would no longer indicate a certain number of years in school, but rather the successful completion of task units relating to specifically defined knowledge, skills and attitudes.

Such basic thinking is significant also when education is considered as a life-long activity. Many students are not interested or ready for everything in an educational curriculum which is organized in blocks of time and by ages of the students. Often, after a number of years, they wish to return but re-entry into the system is difficult by then. If, however, educational opportunity were defined in terms of task units rather than number of years spent in a classroom, and if learning experiences were programmed in such a way that students could enter the system at any point and proceed at their own pace, children or adults of any age could easily re-enter the system at any time.

The average teacher might say that all of this is highly impractical under the conditions in which we teach. And the average teacher is right. Under present constraints in many school systems, the teacher is on his own with whatever resources he can muster out of his own ingenuity. He is also locked into a system with a set syllabus, set examinations, and a time schedule in the school which allows little flexibility. Even the information system to keep track of student progress is so limited that the teacher either at the beginning or at the end of the year, may have little idea of the individual capabilities or interests of each student in the class.

In essence, if education is to move in the direction of a learner-centered approach there must be great changes in each piece of the system, so as to provide the resources with which the teacher and the students can work. Each apparently simple basic change may have broad implications. Basic changes in the examination systems, for instance, so as to make possible continuous cumulative evaluation based on the completion of task units, would involve changes in everything from legislation to record-keeping in many school systems.

If the concept of something like the task unit were to be accepted, this would mean significant new investment in the design, development, testing, reproduction and distribution of new types of basic teaching materials of all kinds. This, in turn, requires new approaches to automated storage and retrieval systems so that teachers and students could get access to a variety of teaching materials in different forms in such a way as to facilitate learning.
Such an approach would imply considerably more sophisticated management than now employed in most school systems. Financing and budgeting of such new educational strategies would be very different than those now used. Something similar to what management specialists call PPBS: planning, programming, budgeting, and scheduling procedures, would have to be used. This approach, first used in industry, stresses the detailed planning of objectives and goals, the measurement of the output of the system and the control of cost needed to achieve output. It focuses on the budget and decision-making processes, particularly on problems relating to resource control, allocation and use.

It also implies networking or interrelating of what has to happen in each stage of the instructional process and how each feature of the system affects other features. Finally, it implies at least three dimensional accounting: by activity (for example, instruction), by materials or services required (for example, salaries), and by program area or subsystem (for example, social studies). In this way, an administration can have better data on performance of the overall system.

So far, it appears that a comprehensive new approach to instruction stressing task units, new instructional strategies and new management would likely cost up to a third more per student enrolled than we are now spending for traditional kinds of education. There is some indication, however, that productivity would increase by more than one third in terms of quality, retention in the system, and assurance that we are teaching the students what we say we want to teach them. In essence, it would cost us more for each student enrolled in school, but less for each student who successfully acquired the specified skills, knowledge and attitudes which are the objectives of the school.

Contemporary Practical Responses

Let us look at what is actually happening in a variety of countries. Significant trends can be seen in both rich and less rich nations. In the United States there are fascinating developments. The Baldwin Whitehall School experiment near Pittsburgh, Pennsylvania, in collaboration with the Learning Research and Development Center at the University of Pittsburgh, is one of the early attempts to develop a system of completely individualized instruction in one school system. This has involved changing traditional school schedules, developing completely new curriculum materials that can be used by students on their own or with the guidance of the teachers, new testing procedures so as to provide feedback to the student and to the teacher as each task unit is completed, and a new management system in order to keep track of the resources and so as to judge the cost effectiveness of the program.

Another novel concept in the United States is the performance contract. Thus, Texarkana, a city on the Arkansas-Texas border, recently contracted with a consulting firm for a five million dollar program to improve reading and mathematics skills among its students so as to prevent drop-outs. It was thought that the high drop-out rate was in large part due to the inability of students to read and to do the necessary mathematics related to the various subject matter areas.

The firm established teaching-learning centers in conjunction with the regular school program and will receive about eighty dollars per student per grade-level increase in mathematics or reading if this can be done in no more than 80 hours of instruction. If the increase is achieved with less time, the company gets a bonus. If it takes more than 80 hours per student the company
is penalized and if it takes over 160 hours to raise the student one grade level, the company gets no payment at all.

The core of the program consists of self-study software, basically instructional film strips and recordings which are presented in a display device which looks something like a television set. The device itself has a simple computer-like control system and the teaching materials are constantly changed and revised with experience.

So far, the results of this experiment are highly promising. Although there is considerable investment in the system, it shows that with careful development and testing of instructional approaches, students with learning difficulties in the regular system can be brought up to the norm, often in less time than is taken in a normal classroom by the average student. It also squarely states that if the student does not learn it is the fault of the instructional environment and not the student, and the company gets paid nothing if its system does not teach.

At the national level, there are interesting developments occurring which affect entire educational systems. In El Salvador, several years ago, the Minister of Education elected to introduce a massive system of educational television, not as another layer on the traditional system but as a piece of a total educational reform effort. The concept has been to use television as a catalyst for change and as new television courses are developed, these often introduce new curriculum approaches. Often, the teachers learn the new approaches with the students from the television sequence and from the supplementary materials which are distributed to be used before and after the television broadcasts. In addition, the television program is linked closely to the national secondary teacher training college which prepares teachers who will then understand the use of the new medium.

Television is also being used as a catalyst for overall educational reform in the Ivory Coast. Here again, a complete reform of the elementary system is under way and the changes in content and approach will be introduced rapidly in television. The television software, that is the programs, will be produced at a center adjacent to the national teacher training college which will be located in a predominantly rural area. In this way, it is anticipated that the curricula will take on more of a bias appropriate to rural areas and the teachers trained in the teacher-training college will be more motivated to stay in rural areas and teach.

Feasibility studies have been done or are under way on the possible uses of satellites in education in India, the Spanish-speaking countries of Latin America, Brazil, and Africa. There is no question that satellites are capable of broadcasting something over wide areas, but it is not entirely clear whether or not there will be much real impact on instruction. In part, this is because the trend in education is away from having all students do the same thing at the same time and in part because of conceptual problems involved in getting school systems in widely scattered areas and often in different countries to accept the same curriculum and materials. However, there will be great uses for satellites in adult education, in bringing supplementary material to schools, in the exchange of information and in the linking of computer-based information storage and retrieval systems in universities and research institutes in various countries.

Britain has introduced the Open University which may completely revolutionize the concept of how we go about university education. The concept here is to provide a variety of learning and teaching experiences by the broadcast medium, through self-study material, seminars and classes organized to
suit the convenience of students. Evaluation will be based on the assessment of fairly specifically defined knowledge, skills or attitudes. A degree will not be based on number of years spent in the institution but rather based on completion of learning tasks and a student may never be in residence anywhere and still get a university degree. It is likely that the per student cost of this university will be less than a traditional university and yet its enrollment is potentially unlimited. However, sophisticated approaches to the preparation of teaching learning materials, evaluation, and management must be brought into play in order to make it work.

Indonesia is probably one of the first countries to attempt a true systems approach to the reform of education at all levels. Under a UNESCO Special Fund Project, a consulting firm is assisting the Government in designing a systems approach to the development of the components necessary in the total educational environment, and the UNESCO Chief Technical Adviser is a systems management expert with a great deal of industry experience. Components of the system will include a curriculum research and development center, new kinds of testing and evaluation approaches, and probably a broadcast component tailored specifically to the peculiar need of Indonesia with its many islands. All will be melded together with program, planning, budgeting and scheduling procedures and interrelated so that the whole will proceed smoothly during its reform and later stages. How this will work nobody knows, but hopefully the system will include plenty of feedback so that we will know what is successful and why, and what does not work and why.

**Necessary Support Structures**

These broad trends place great emphasis on the development of a number of specialized infrastructures and institutions in the education system that have not traditionally existed in many countries. Perhaps basic is the trend toward the establishment of curriculum research and development organizations staffed with people who know how to get academicians to define in behavioral terms what is important in each discipline, with specialists who know how to develop new kinds of teaching and learning materials which make possible new approaches to group and individualized instruction, and specialists who can then put it all together in a strategy that can be managed within the financial resources available now and in the future.

These centers also will look at new kinds of curriculum needs dealt with now only superficially if at all. For instance, what should we be teaching students so that they will have the knowledge, skills and attitudes necessary:

- to be productive without poisoning the environment?
- to understand the role of population in world conditions and the possible role of their families regarding the problems of overpopulation?
- to participate productively in the affairs of man that contribute to peace and international understanding?

Many of these and other contemporary problems will demand interdisciplinary treatment and new kinds of insights in terms of teaching approaches.

Finally, these centers will be concerned with teaching and learning styles. What are the special learning problems of children from a culture less than rich in abstract stimuli? What are the special problems of children of one language group who must learn in a school which uses a second, perhaps national, language?

Another set of sub-institutions, very closely related to the curriculum group, will have to do with educational technology. What are the kinds of systems appropriate and economically feasible for getting new kinds of instruc-
tional materials to the classroom? This can include certain kinds of mass distribution of instructional material via television or it can include programmed instruction materials, 8 mm film, new kinds of workbooks, new strategies such as correspondence study, and so on. All of these new technologically-based approaches involve specialist fields and administrative and organizational structures in order to get the software developed and tested, and in order to get it distributed, stored, and used in a continuously evolving system. Certainly libraries and audio-visual centers of today are unlike the kinds of dynamic systems of storage, retrieval and display we will see during the next decade or two.

New kinds of testing and measurement organizations will be established in order to keep a continuous record of performance and abilities of students. Again, this is intimately related to the curriculum and technology infrastructures which will be appearing in various countries.

New kinds of school management structures will be emerging with sophisticated new approaches to the collection of data about schools, student flow, teacher preparation, school scheduling, and school budgeting. This is closely related to the new breed of educational planners who are staffing the educational planning offices in most countries. These offices, increasingly, will be using sophisticated techniques for global assessment of various alternate approaches to improving the quantity and quality of education. New kinds of educational research institutions are being established in many countries to assist all parts of the system in finding answers to critical teaching and learning problems. One of the more elaborate such centers was originally described as a mile-long continuum, with basic research on learning phenomena at one end and applied applications in school systems at the other end, with all shades and combinations of basic and applied research across the middle.

The Role of the Teacher

Where is the teacher in all this? It is obvious that the role of the teacher will gradually change over the next decades. No longer will the teacher be thrown into a classroom to fend for himself. He will have an arsenal of sophisticated teaching, learning and evaluation materials available in the school, and his job will be more and more to articulate and orchestrate large numbers of resources. All kinds of specialist skills will be required of him, and it is likely that he will assist and be assisted by other specialists. The prospects are bright for a profession which is much more satisfying than ever before in that there will be much clearer definitions of what we are trying to do and greatly improved resources with which to do it.

There obviously will be a redistribution of functions which are now all performed by the teacher in a self-contained classroom. There will be team approaches to planning and teaching. There will be much more peer-teaching, that is, students planning their own studies and helping each other learn. Specialist administrators will be facilitators, members of the teaching team, providing the resources needed for teaching and learning rather than inspectors and supervisors who act as policemen and wardens.

The environment in which the teacher works should be greatly improved in the next decade. Rather than egg-crated types of schools with a standard number of chairs and limited teaching equipment in each classroom, schools will gradually turn into teaching and learning centers with flexible space and with resources which will gradually move the school toward the concept of being a community center of life-long education. There will be examples dur-
The next decade of schools which work eighteen hours a day, with teaching, learning, cultural and recreational activities available to the entire community. If there is such a transformation, it will certainly enrich the environment for young students who are in the part of the new institution which we now call formal schooling, and it will bring the school back to the community, where it belongs.

The Critical Role of Teacher Education

One of the basic problems in all of this is qualified manpower. We must turn our efforts in teacher education institutions and in in-service education to the preparation of a variety of specialists who can be the innovators of the future, who can carry out the new strategies of education. We must turn our attention to the preparation of teachers who have the definable skills necessary to assume leadership in innovation and who can work in a team which includes many specialists. We must turn our institutions to more research and development in curriculum, educational measurement, and school management. We must take the relevant elements of management disciplines, of the social sciences and of academic disciplines, and mesh these various relevancies into a total systems approach to educational renewal.

Fascinating examples of diversity in teacher education institutions are abundant. In a number of countries, there is great interest in micro-teaching, interaction analysis, analyses of non-verbal behavior and other approaches designed to identify and teach the teacher those behaviors which will facilitate learning. Often, closed circuit television is used to help the teacher-in-training to analyze his own behavior.

Academies of pedagogy and of teacher education are now being created in a number of countries where teacher educators, school administrators and educational specialists are being trained for the first time. UNESCO assisted academies exist in Afghanistan, Ethiopia and other countries. Many of these institutions will use various techniques for reaching teachers in-service: television, radio, correspondence education and the like. In Laos, a new Higher Teachers College will not only train secondary school teachers, but prepare programmed instruction material for use in the secondary schools of the country. Teachers-in-training will participate in this work and thus be prepared to use the material when published.

In India, a National Council for Educational Research and Training has an integrated complex of curriculum and materials development projects, programmed instruction and educational technology activities, educational research programs, and advanced training in these and other specialties. Now it is planning to produce educational materials for use by satellite, probably beginning in 1974.

Spain has, with UNESCO advice and assistance, begun the first extensive program to use computer-assisted instruction in teacher education. A number of the larger centers of teacher education will experiment for the next several years with the programming of much of the teacher education content so that students will interact with material stored in the computer.

One could continue relating these promising examples for some time; clearly the seventies will be a decade of change and innovation in the teaching profession. And nowhere will this be so true as in the area of education for teaching. The prospects are getting brighter, but the challenges and problems are also increasing. To make haste so as to prepare citizens for the world of tomorrow, and not of yesterday, is the challenge to teacher educators of the seventies.
The Uses and Abuses of Diversity in Teacher Education

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Those of us who are engaged in the education of teachers welcome novelty even if it does no more than relieve the boredom of extended sameness. Perhaps that is why so many new programs are put forward as "exciting." However, not being noted for frivolity, educators feel duty bound to demand that novelty and diversity be serious, and, if possible, significant as well. The slowness with which innovations are adopted in our field and the brief life most of them enjoy are discouraging, especially when compared to the dramatic progress in engineering, medicine, communications and other fields. If there is a considerable discrepancy between diversity and progress in our field, and I believe there is, then something may be wrong with our expectations. We may be looking at the wrong models.

Ordinary language and the rhetoric of college catalogues leave little doubt that the ideal of the teacher as a professional is not dead. I shall argue that the significance of diverse innovations (or lack of it) in teacher training may be illuminated by regarding them as attempts either to achieve or evade this professional ideal.

At the risk of some oversimplification, the professional ideal is technology, that is, techniques guided by science or rational principles, techné, as the Greeks called it. This differentiates the professional from the technician, who has techniques without the knowledge, and from the scholar, who has the knowledge without the techniques. A professional curriculum, therefore, is distinguished by the logos of its practice, that is, by the rational study of its methods. The professional alone is held to qualify for that kind of autonomy that enables one to judge when and if rules must be followed or suspended. This authority accrues to the professional by virtue of the authority of knowledge itself. It is, I might add, the only sort of autonomy schools ought to claim.

Progress can come from innovations both in theory and practice, but the progress engendered by theory is often exponential, e.g., the effects of physics on mechanics, terrestrial and celestial; of chemistry on agriculture, industry, and medicine; and of solid state physics on electronics. Progress that comes from trial-and-error variations in practice tends to be additive and slow, e.g., primitive experimentation with the uses of metals and fabrics, methods of hunting, fishing, and agriculture.

In education most innovations have not been the result of breakthroughs in theories of learning or of teaching. I dare say that an Athenian schoolmaster of 400 B.C. would not feel wholly out of place in many a contemporary classroom; certainly not so bewildered as an Athenian physician would be in a modern hospital. As exceptions to this melancholy observation, one might cite the Froebelian kindergarten, the project method in its strict form as developed out of Deweyian theory, and some of the experiments with schools based on personality theory, e.g., Rogerian or Freudian analysis. These—strictly carried out—would create not only a new method of teaching, but also a new conception of the total role of the school and the teacher, in themselves and in society; they would constitute systemic innovations. But oddly and perhaps significantly, such innovations rarely last very long in their
pristine and pure forms. Instead, certain features are co-opted by the more standard practices, so that the impact of the theory is neither pervasive nor distinctive. For example, consider the co-optation of the project method to motivate pupils in a traditional subject matter curriculum. In other words, if the society it is intended to reform doesn't come around fairly quickly, the revolutionary school is domesticated into a relatively insignificant variation of the status quo. Schools rarely reform society, but on occasion social reality catches up with an educational theory.

Nevertheless, the theory-changing-practice model of innovation persists in the minds and hearts of teacher educators. On this model, study of the teaching-learning process by psychologists should yield empirical generalizations from which rules for teaching should be derivable. Innovations, ideally, should be justified by such research. Why, then, after nearly a half century of very active and expensive research into the nature of learning, of teaching, and of the "good" teacher, are we still piling up monographs which do little but demonstrate the scholarly competence of the researchers? Why after all this effort—much of it highly competent—do we still lack criteria for "good" teaching and "good teachers"? Why are we unable to test the product of teacher training curricula as industry tests its products, and as we are urged to do? In this field of inquiry mountainous labors have produced puny mice, so that one recent well known summary of research concluded that: "There are no clear conclusions"

This is hardly surprising if one thinks about the nature of the research done on this problem. For the most part it has consisted of asking school administrators, supervisors, teachers, prospective teachers, teacher educators, pupils, parents, and almost anyone else willing to answer a questionnaire, what they regarded as the characteristics of the "good" teacher, what courses they regarded as most or least useful. Inasmuch as this wide variety of respondents occupied a broad range of roles in the educational enterprise and therefore viewed it from the perspective of their individual roles, it could be expected that the list of traits would be large and the organization of them into some explanatory scheme would be well nigh impossible, even if—as is not the case—semantic uniformity with respect to the terms could be achieved. There are countless inventories of traits found in "good" teachers, but no agreement on a defining set.

Accordingly, any individual teacher regarded as "good" on any criterion may have his own peculiar and individual sub-set of these traits. Indeed, we would worry a little if this were not the case, because if the "products" were uniform they would not be persons. There is no way of predicting just which pattern of these traits or other traits will in any individual case meet the criterion. This has led one commentator to remark that it is still possible for a teacher to break all the rules and still be a good teacher, and the converse is, unfortunately, also not unusual.

This situation may be altered if and when the geneticists combine with the chemists to produce certain desired brain structures on prescription. In another 50 years, conferences like this one may be listening to scientists and engineers of education. Until then we have to cope with our problems in terms of meanings and human import rather than in terms of organic causes.

The Aspect Approach

The new approaches to teacher training, however, do not, as a rule, try to provide a criterial set of traits for "good" teaching. Instead, they analyze conceptually one or more aspects of the teaching-learning transaction into
steps or processes. They seek an answer to the question: "What does a teacher do when she teaches X or Y?" We can distinguish several variants of this approach:

1. There is a class of innovations that stress the personal, affective, moral, aesthetic aspects of interactions between teachers and pupils. These include the use of group dynamics, socio-dramas, and Buberian I-Thou experiments. The problem of teaching disadvantaged children, children with emotional disturbances and other handicaps, has put a premium on securing emotional rapport between teacher and pupil. For example, Kohl represents a school of writers who argue that the way to teach disadvantaged children is to give their native curiosity and creativity free play. Bettelheim urges that the main function of education is to produce a well-balanced personality where "both id and superego are subordinated to reality, to the ego." 

2. Another class of innovations stresses the cognitive-logical properties of the teacher-pupil interaction. These take into account the logical properties of the subject to be taught and of the discourse used in the teaching.

3. Another class combines the logical structure of the subject matter and the psychology of cognitive processes by which these are discerned: discovery, creativity, and various strategies for concept attainment, and so on.

On any one of these approaches, it is possible to assemble a set of studies and exercises (paradigm tasks) that very plausibly could be expected to give the prospective teachers the appropriate competence. But whichever aspect one makes central renders the other peripheral, and yet if the process is really integral, no one of them can be made peripheral. As a result, each new approach seems to be valid and important and yet, as a design for teacher education, manifestly insufficient. However, to make all the approaches coordinate and to render the trainee competent in all of them would necessitate a far greater investment in time than most teacher preparation programs are prepared to ask.

Is there any theoretical limit to the number of significant aspects of the teaching process that could be abstracted, studied, and proposed as a key design for teacher training? I know of none and, at the moment, cannot imagine any. New research, therefore, uncovers aspect after aspect and this or that innovation is devised to exploit it, and yet we get no nearer to a definitive description of good teaching or good teachers.

Not only is the number of possible aspects indefinite—if not infinite—but some of the most important ones are highly disparate. The two classes of aspects most difficult to combine are the logical-cognitive-theoretical, on the one hand, and the psychological-affective-personal, on the other. Yet the professional ideal demands that they be united in the same person, even though no significant correlation between them is discernible. In view of this unfortunate independence, the chances that any person selected at random will fulfill the requirements of a high-grade, sensitive, charismatic person skilled in the art of teaching are exceedingly small, and the chances of any significant proportion of a large teaching staff being so endowed are minuscule. All of which, if taken seriously, means that the laws of probability doom virtually all teachers to failure. And there never has been a time when a society was happy with its teachers, its schools or, for that matter, with itself.

We may thus account perhaps for the fact that although one can speak significantly of a successful doctor or lawyer who is not much as a human being, we cannot do so of a teacher, as popularly conceived of in terms of the professional ideal. For these and similar reasons, innovations based on
the aspect approach are illuminating, suggestive, and often helpful as correc-
tives, but in themselves are not promising strategies for an overall design
for teacher education.

Anti-Theoretical Approaches

Indeed, there may be a profound ambivalence toward an overall design
based on theory. Perhaps we do not want a theory that would enable us to
make teaching-learning behavior really predictable. For such a theory would
convert persons into machines, and while we want teachers to be efficient
teaching machines, we want them to remain very unmachine-like persons at
the same time. So we have another set of innovations that tend to regard
teaching as a more or less skilled art. The strategy of these proposals is to
reduce the theoretical component of teacher education curricula. Presumably
a charismatic personality with an apprenticeship in skills constitute the ideal
teacher.

1. One class of these innovations tries to compress the training into
mastery of content to be taught plus practice or apprenticeship in teaching
it. The more extreme proponents of this approach would eliminate all educa-
tionist theory; in practice the amount is kept to the minimum usually required
by certification or licensing laws. This trend was accelerated during the
sixties with the development of new curricula in mathematics and the sciences
which emphasized content reform. On this plan teacher training is a form of
apprenticeship undergone during or after the work toward a baccalaureate
degree in some field or another.

2. Another class of innovations stresses experience in dealing with chil-
dren of various ages and ability, and to identify with them. Social work, com-


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For example, although one would have to concede that the amount of theory derived from empirical science available for the guidance of teaching practice is disappointingly small, there is a context-building type of theory that is indispensable for the proper understanding and interpretation of educational problems, in general and in one's classroom. Such theory the foundational studies, commonly called the history, philosophy, sociology, and psychology of education, are designed to provide.

That such context-building studies are already supplied by the general education of the prospective teacher is simply not the case, at least not in the United States, where no uniform design for general education exists, where very little that is taught in higher education is really general, and where references to education in such studies are likely to be incidental, if not accidental.7

Similarly, at the professional level, it pays to look more closely at the category of “content.” The notion of content in the apprenticeship approaches is constricted to that which is taught to the pupil, e.g., the multiplication table, orthography, geography. However, in the classroom there is no simple replication of what one learns in college to what one teaches to pupils. One teaches the multiplication with another type of content, viz., logic, that is not necessarily taught to the pupil. The rationale of selecting content to teach with is itself part of “educational theory.” So is knowledge about curriculum materials and instructional resources. That “content” in this broader sense is taught in general education is again simply not the case. These considerations make me skeptical about apprenticeship programs and the innovations devised to implement them, and the skepticism is occasioned less by their apprenticeship character than by the implicit assumption that a program can be both non-theoretical and at the same time qualify as professional.

How Realistic Is the Professional Ideal?

This brings us to the question as to whether the professional ideal is viable at all in a world where virtually every country would like to increase schooling for more and more individuals. Even if, for the sake of argument, we could train teachers to a professional level, could any country, even the richest, afford enough of them to preside over every classroom? Could we afford to pay them, for example, on a scale comparable to that of engineers, lawyers, or upper-level civil servants? And would people of the intellectual-personal quality one envisions at this level be willing to invest the necessary training time for anything less in money and status?

In the United States, for example, we have to think of nearly 3 million teachers and about 50 million pupils. By contrast we have only about 300,000 physicians. We are experiencing great difficulty in increasing the number of physicians, not only because the intellectual requirements are high, but also because the cost of providing medical training in staggering.

To offset this, medicine has developed a complex hierarchy of occupations for its functionaries, ranging from hospital attendants to hospital administrators with all sorts of technicians and specialists in between. As many tasks as possible are turned over to technicians, leaving only professional tasks to the physician. This has not happened in teaching partly because the ideal of a fully qualified teacher in every classroom dominates our rhetoric, if not our practice.

Some experimentation with paraprofessionals is now underway, but
the division of the task is such that instead of helping to raise the professional level of teaching, it may well depress it even more. Teacher aides, for example, are likely to be given custodial tasks, clerical tasks, paper grading, and perhaps a little tutoring work. But in time, by following examples and with experience, the aide feels ready to take on the full teaching role. If he can duplicate the performance, why raise questions about the training needed to prepare for the performance? The total teaching role becomes paraprofessional.

This does not happen in medicine. As long as the entry into the physician role requires high theoretical competence, paraprofessionals will not be licensed as physicians. The rationale for diminishing theory in teacher preparation serves as a rationale for allowing paraprofessionals to work their way up to professional status without theoretical training.

I shall not dwell on the possible outcomes of this trend. Allowed to run its course, it might dispel the illusion that the current teacher training programs are of professional calibre. As between honest apprenticeship which could turn out good technicians and pseudo-professionalism, which turns out neither professionals nor good technicians, I myself prefer the first. The good nurse, for example, is indispensable even though she does not pretend to be a physician; the mischief lies in letting everyone concerned believe that a nursing school is turning out physicians. This illusion is one of the major obstacles to genuine reform in teacher training programs.

**Another Alternative**

Another alternative would fractionate the teaching role in a somewhat different way, and this may be a promising field for experimentation. If “didactics” be the name given to all forms of instruction that involve explicit content, procedures, and outcomes, then the possibilities of programmed instruction coupled with electronics may provide a somewhat different basis for role differentiation. It would use modern technology to achieve the economies of mass production, but it would embody the best available theory, and it would free resources for a relatively small cadre of personnel trained to a truly professional level.

This approach rests on several assumptions: first, that any form of explicit instruction can be programmed; second, that with the aid of sophisticated computers, these programs can individualize instruction better than the live teacher can in terms of pace, sequence, and evaluation; third, that in time the cost of the hardware will be reduced to the point where it is more economical than traditional organization of schools and instruction. Indeed, this latter development might radically affect the use of school space, for conceivably much of what has been referred to as didactics need not be done at the central school. Regional study centers, libraries, and even the home could be utilized once the appropriate hardware is developed. Certainly this prospect is more promising than trying to add standard teachers, standard space, and standard equipment to meet the burgeoning demand for schooling.

The efforts of developing nations to reduce teacher/pupil ratios of 1:70 by standard methods are futile, because the funds needed to effect even a small improvement are prohibitive. Even more developed countries are reaching the limits of their resources to increase educational facilities by standard methods.

Two immediate consequences would follow from the proposed separation of didactics from the rest of the teaching act. One is that the didactics teacher need be trained only to the level of a technician who would schedule the machines, keep records, and perform custodial tasks. Professionally trained
personnel would prepare and choose the programs, make curricular decisions, and so forth. The second is that encounter teaching or that which deals with personal relations, dialogue, discussion, and the like would not be done by the didactic technician. The training needed by encounter teachers is not easily specified because it could be so varied. Counselors, social workers, community workers, and youth leaders might have the needed attributes. Qualities of personality rather than formal training might be decisive. Again, there might be levels of professional training needed for encounter work in the classroom, supervision, and other areas.

The standard objections to this type of solution, it seems to me, are the result of confusing didactics with encounter teaching. They come to saying that pupils are persons and that machines are not, and teachers ought to be persons. But this is like saying that rickshaws are to be preferred to motor cars or that each train compartment should have a warmly personal conductor. Persons need persons in their schooling, but not necessarily for learning the multiplication table, reading, doing algebra problems, or a thousand other tasks that comprise didactics. As a matter of fact, most live teachers behave like grossly inadequate teaching machines when it comes to didactics, and most of what they do in the classroom is didactics.

How to provide the personal (encounter teaching) component in the school may not be solvable at all by training. It may be a function of selection, but this selection will be far easier if it is not coupled with the need for competence in didactics, as it now is.

A Really Professional Teacher Training Institution

Another area in which we might wish to see some experimentation is the development of a four year post-secondary teacher training institution that would try to achieve a professional level of training for teaching. In the United States it was thought that the two-year normal schools would evolve into such institutions. In the fifties, however, many four-year teachers colleges were transformed into more general colleges and universities of which they became subordinate departments. I have in mind an analogue of the four-year undergraduate engineering degrees that are fairly common in the United States. At the Massachusetts Institute of Technology, our best known institution of this kind, first rate engineers are trained. These men study technology based on theory, but they also have generous doses of the humanistic studies, and considerable practice under laboratory conditions. But there is no pretense that the “engineering” part of the course can be accomplished in one college semester as is so often the case in the preparation of school teachers in the United States.

An institution of this sort might be able to test the possibility of incorporating the following elements or streams into a four-year curriculum:

1. Completion of general education in the standard disciplines, assuming an adequate beginning had been made in the secondary school.
2. Humanistic foundations of educational problems (psychology, history).
3. Behavioral foundations of educational problems (psychology and sociology).
4. Content to be taught to the pupil.
5. Cognate content, not necessarily taught to the pupil but needed to teach with, i.e., to provide context for the teaching of the content, e.g., logic with which to teach mathematics; English history with which to teach Shakespeare, and so on.
6. Theory as applied to the teaching of one's specialty, taught with appropriate laboratory experiences.
7. Clinical experiences in teaching one's specialty under expert supervision on paradigm cases.
8. Internship or experience in a real classroom.
9. Some competence in producing, but primarily in using, research.

Given some such design, innovation and experimentation within each of these rubrics might result in cumulative progress rather than accumulation of random approaches and devices. Without such a design, much of the diversity now in being or being proposed is not really significant, and many significant experiments do not outlast the enthusiasm of their progenitors.

I realize that there are important differences between teaching and healing and the various functions of engineering, and that the analogies among the professions can easily be strained into unrealistic distortions. Nevertheless, if my analysis is not entirely mistaken, much of the fruitlessness and transiency in our experiments with teacher training are due to our inability to live with the professional ideal for teaching and a reluctance to abandon the ideal in favor of the craft model. Once we make up our minds on this fundamental issue, the strategies of working toward whatever model we have decided upon would become more easy to implement, evaluate, and incorporate into the preparation of teachers.

NOTES

1 I suppose the Montessori schools and variants of the Summerhill experiments might be looked at in the light of this conjecture. More important perhaps is another possible conjecture, viz., that significant innovations in education are likely to be systematic rather than variations in isolated techniques or devices. This is discussed in the last section of the paper.
6 E.g. The work of Jerome Bruner and Jean Piaget.
Curriculum Evaluation in Teacher Education in Malaysia

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Introduction

Teacher education in Malaysia is comparable to a three-layered cake where the layers may be separately produced but would have to be sampled together by the consumer. At the base of the hierarchical system are the day training colleges or centers which, until two years ago, required only a Lower Certificate of Education (L.C.E.) as minimum qualification for entry. In general, the conditions in primary teacher training institutions, such as buildings, and facilities and the qualifications of academic staff, have tended to be inferior to those in secondary teacher training colleges; the latter are entirely residential and admit students with at least a School Certificate, with the number with a Higher School Certificate increasing rapidly in recent years. The professional training of teachers for the primary and lower secondary classes is in the hands of the Ministry of Education Teacher Training Division, whereas the professional training of the “creamy layer” of graduate teachers who possess at least a basic degree (e.g. in Arts, Science, Economics or Agriculture) takes place at the Faculty of Education, University of Malaya, which in awarding a Diploma in Education to a graduate teacher virtually certifies that he is qualified to teach in the upper secondary classes.

The importance of maintaining a close liaison between the Ministry and the Faculty of Education cannot therefore be over-emphasized. During the earlier years of the Faculty's existence, the relationship between the Ministry and the faculty tended to be more formal, as when staff of the faculty constituted a Board of External Examiners for the secondary teacher training colleges. In this respect, faculty staff were involved not only in moderating examination questions and sample scripts, but frequently in traveling all over the country in order to examine teachers during teaching practice. With the rapidly increasing responsibilities within the faculty itself and, more important, with the increase of more qualified staff and greater self-reliance in the training colleges, the role of the faculty became purely advisory as the resources of the colleges were pooled together to form a centralized system of examination.

As another example of the spirit of cooperation, a Teacher Training Policy Review Committee, headed by the Director of Teacher Training and comprising senior officials from the various Divisions of the Ministry and representatives from the Faculty of Education, was established early last year with the following terms of reference:

(a) To define the aims in the teacher training program in primary and secondary teacher training colleges and to consider the extent to which these programs are geared to the needs of schools, bearing in mind the changed conditions since 1964.

(b) To review the present courses of studies and syllabi in relation to the proclaimed aims and in light of the experience of the teacher training colleges since these courses of studies and syllabi were introduced.

Address delivered at the ICET Conference in Kuala Lumpur, Malaysia, August, 1970
(e) To consider the desirability and feasibility of coordinating and integrating teacher training programs in the secondary and primary training colleges which hitherto have been separate, and bearing in mind also the Ministry policy of producing teachers who are bi-lingual insofar as English and Malay are concerned at least.

(d) To consider the financial implications, i.e. the expenditure, both capital and recurrent, resulting from the proposed changes.

(e) To consider the problem of the availability of staff qualified to lecture in the subjects under the proposed program, and, if necessary, to consider also the need for in-service courses and retraining programs for both lecturing staff as well as teachers.

Ministry and Policy

It is perhaps reasonable to say that so far the major teacher education curriculum changes have followed important policy pronouncements. A landmark occurred with the publication of the Report of the Education Committee of 1956 (or the Razak Report), which catalyzed attempts to coordinate the different training courses in order to produce teachers with compatible qualifications through a common pattern of teacher education for service in all Government-assisted schools, irrespective of the media of training. Hitherto, there was a proliferation of types of training courses for different types of schools using different media of instruction. The staggering discovery by the Royal Commission on the Teaching Services, West Malaysia (or Aziz Report, 1968), that there were 511 salary scales for teachers and 55 teachers' unions in existence in West Malaysia is probably associated to a large extent with the diversity of training courses offered through the years. While stressing uniformity in types of courses offered, specific variations in the interpretation of curricula were permissible.

Even well after independence in 1957 there have been attempts at revising existing syllabi and establishing common ones. The Education syllabus for primary teacher education has, for instance, undergone considerable revision in 1963 when a Special Committee was appointed to review the entire primary teacher training syllabi. With the help of several consultants, mostly psychologists, and after a series of four conferences for lecturers in primary teacher education, the Education syllabus was revised, with an understandably strong bias in psychology. The Education syllabus for lower secondary teacher education was also revised, rather drastically, as a result of the deliberations of the Education Syllabus Committee appointed in 1964. Thus, in order that an integrated approach to education be maintained, emphasizing the "application of educational principles to classroom practice and not merely a theoretical discussion of the nature and validity of these principles themselves, the traditional framework of classification by subject was replaced by one which keeps in view the principal interacting variables of Teacher, Pupil, Teaching Method, Evaluation and Setting." An orientation course was also organized for lectures in secondary training colleges toward the end of 1964 and the comments of the workshop groups were included in the revised syllabus.

Another significant stimulus for curriculum change occurred with the introduction of comprehensive education in 1965 where the inclusion of compulsory electives such as Agricultural Science, Industrial Arts, and so
forth, led to an urgent need for teachers capable of teaching these subjects. Furthermore, since all pupils were given an opportunity to continue up to Form III after primary education, a large number of teachers had therefore to be produced very quickly. The Teacher Training Division of the Ministry braced itself for the event and in 1964 introduced the so-called Integrated Teacher-Training Program whereby each college specialized in certain specified subjects of the secondary school curriculum, so as to conserve the scarce resources in personnel and physical facilities.

A less popular move was the introduction of the Regional Training Center Scheme, which had been criticized for the dilution of standards. It is however doubtful that, under the circumstances, any other crash programs would have been capable of coping with the sudden influx of approximately 110,000 pupils more each year for three years, in addition to the need to provide for the teaching of new compulsory elective subjects. The Comprehensive Education Committee of the Teacher Training Division was indeed cognizant of the danger of further dilution of standards and recommended that, over and above the training of teachers during weekends while they taught during weekdays with a reduced teaching load, the following measures be adopted:

(a) The trainees were to be recruited on the same basis as those for training colleges and they were all to sit common examinations;
(b) The trainees attended vacation courses in the nearest teacher education institutions;
(c) The lecturers in these centers attended professional lectures conducted by Faculty of Education staff during vacations.

More recently, arising from a ministerial pronouncement last year that the national education policy would entail "the progressive development of an educational system, in which the National Language is the main medium of instruction," the urgent need to provide in-service training for teachers in the national language or Bahasa Malaysia became apparent. It is true that since 1960 all student teachers in primary teacher training institutions were required to offer Bahasa Malaysia as a first or second language, but teaching various subjects using Bahasa Malaysia as the medium of instruction is radically different from acquiring some basic proficiency in the language. It is true also that a large percentage of teachers signified that they were able to teach in Bahasa Malaysia on the basis of a questionnaire administered by the Ministry, but it is not possible to dismiss the fact that, fearing transfer, some teachers preferred to state that they are capable of teaching in Bahasa Malaysia in the hope that they might be able to pick up the language to adequately teach in it.

In sum, it may be seen that evaluation of teacher education curricula has tended to take the form of reviewing the types of courses offered in conformity with policy decisions. Of late, there has also been considerable change corresponding to the imminent changes in various school syllabi. Thus, the staffs of teacher training institutions have been preoccupied with conducting, or participating in, in-service courses, such as those concerned with the introduction of the Scottish Integrated Science and Nuffield Science syllabi, as well as making relevant adjustments to the courses they offer in their respective institutions in order to become involved in systematic evaluation of teacher education curricula, such as has been envisaged by the teacher training Policy Review Committee alluded to earlier.
Teacher Training Policy Review Committee

The Committee focused its attention initially on the delineation of aims of teacher education with the view to suggesting practices that would be consonant with these aims. Scrutiny of existing reports revealed that when a statement of aims was provided, it was often vague and global, such as in terms of producing teachers of the desired quality and quantity. Accordingly, members of the Committee submitted alternative formulations of aims in order to provoke discussion. The Inspectorate, for example, suggested the following three aims:

(1) "Teacher training should aim at educating trainees in the principles of education in general and the purpose of the nation's educational system in particular so that they will learn the basic fundamentals that will help them formulate a philosophy of education to guide them as educators."

(2) "To educate teachers so that they will be able to meet the needs of the changing conditions in the country—to fit into the society in which they serve and to foster a national outlook and a realization of national identity."

(3) "To broaden teachers' outlooks with reference to educational systems in the world in general and in neighboring countries in particular."

Another paper attempted to formulate aims by considering plausible solutions to pressing issues and suggested the following objectives:

(1) "preparing teacher trainees to be research-minded;"

(2) helping them to "seek rapprochement by synthesizing and coordinating the best of suggested features into a balanced and harmonious operation;"

(3) "inculcating in teacher trainees habits of continual review of whatever they do;"

(4) "emphasizing the importance of relevance in teacher education courses and practices and the need for teachers to be adaptable to different situations and individual differences among pupils."

The Committee has also prepared a comprehensive questionnaire for administration to representative samples of heads of training institutions, lecturing staff, teacher trainees, heads of schools and school teachers. The questionnaire aims at soliciting the impressions and opinions of different categories of respondents on current and future teacher training vis-a-vis:

a. curriculum and manifest aims,
b. organization and policy,
c. methods of teaching and supervision,
d. examination and other evaluation procedures, and
e. staff and students.

Among the many aspects to be assessed are desirability and practicability of a number of propositions such as the following:

A5. "Each student, whether from primary or secondary training institutions, should be more intensively and extensively trained in only two main (or teaching) subjects, rather than have his efforts spread thin in trying to master the content and methodology of a range of subjects."

A6. "For other main (or teaching) subjects, a series of single lectures should be given in the Education course, wherein the specialist lectures would provide guidelines on crucial points to observe in teaching the subjects, additional notes and references, etc., to enable the student to seek further information and materials on his own, if and when required to teach these subjects."

B5. "Primary and secondary teacher training programs should be regarded as continuous and articulated and not separate."
B6. “Initially, integration should be one of sharing common aims, hav- 
ing common syllabi and examinations for basic subjects and perhaps also 
sharing lectures and meeting socially and professionally, but eventually 
physical integration of primary and secondary training programs under one 
roof is desirable.”
C3. “Lecturing staff should demonstrate, either during the lectures 
they give or in real or simulated classroom situations, the kind of teaching 
they expect their students to conduct as teachers.”
C4. “Lecturing staff should be released on a staggered basis and in a 
systematic fashion to teach in schools or to undertake the functions of an 
inspector of schools for a period of time, once every few years.”
D7. “Students of training institutions should have experiences in evalu-
ating themselves and their peers.”
D8. “Systematic self-evaluation by lecturing staff should also be con-
ducted periodically.”
If and when executed, it is anticipated that the survey would constitute 
an important exercise in the evaluation of teacher education curricula.
The danger, however, is that its recommendations might be converted 
into virtually immutable policies, whereas the Committee has been seeking 
to develop a self-renewing educational system and has emphasized the need 
for the periodical review of aims and practices.

Faculty and Flexibility
Thus far the Faculty of Education has enjoyed relative autonomy in 
the courses it offers, so that over the past few years it has been able to evolve 
a fairly flexible system. Feedback from staff and students alike can bring 
about radical but relevant changes without undue repercussions.
Thus, arising from questionnaire returns from students regarding various 
aspects of the Diploma in Education program, from frequent staff discussions 
regarding roles and rationales for avowed goals and priorities, as well as 
annual get-togethers with heads of schools, it has become apparent that there 
are four categories of needs as represented by the following types of courses.

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<thead>
<tr>
<th>Basic</th>
<th>Additional</th>
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<tr>
<td>General</td>
<td>Principles of Educational Practice</td>
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<tr>
<td>Specialized</td>
<td>Special Methods</td>
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The Principles of Educational Practice is an integrated core course, in 
which every member of staff offers a few lectures stressing the application 
of psychological, sociological, philosophical, historical and other educational 
principles to classroom and professional practice. This is the only course which 
is examined at the end of the year by means of an objective type paper as well 
as an essay type paper. It may be noteworthy that so far the correlations 
between the two papers have remained rather low, suggesting that some 
students are better at one mode of testing than the other.
The Special Methods are integrated into three cognate areas, namely 
language, sciences and social science methods. Students being trained to 
teach a given subject, e.g. history, would participate in lectures and dis-
cussions on the planning, conduct and evaluation of lessons across each 
cognate area, besides specialized lectures and discussions for the subject 
concerned. Assignments for each methods course are closely linked with 
practical teaching of the subject.
The Optional Courses consist of the former twenty or so specialized op-
tions which have been regrouped into five studies (comparative, development,
pedagogical, psychological and sociological) corresponding to the five divisions of the faculty. Assignments for these courses are research-oriented and based on joint projects under the supervision of the staff in charge of the respective courses. The five divisions are more than an administrative expedient, for, even though it is a relatively new type of classification, the faculty is convinced that it has a viable set of main directions in which research is likely to exert its maximum impact. Whereas certain existing disciplines would be confined to just one division it is envisaged that some others, such as curriculum studies, could span across the five divisions allowing for cooperative projects.

In case some readers are unfamiliar with the new terminology, the following are statements about the divisions in encapsulated form:

I. Comparative Studies in Education

The disciplines incorporated in this division will concern the comparative study of various problems in educational systems and organizations from a space/time perspective, with special reference to Malaysia and Southeast Asia.

II. Development Studies in Education

The study of the relationship between education and the development of societies through economic growth, with particular emphasis on such problems as the functional role of education and educational administration in the development of human resources, will be the main concern of this division.

III. Pedagogical Studies in Education

The focus of this division is on the development of a theory of teaching through the study of teaching behavior and situations involving specialized teaching, such as the use of educational technology and the teaching of exceptional children.

IV. Psychological Studies in Education

This division will include behavioral science disciplines connected with the study of developmental and educational changes in human behavior as well as of the measurement and counseling of such changes in behavior.

V. Sociological Studies in Education

This division comprises the disciplines associated with the social sciences, such as educational sociology, linguistics, and other studies relating to problems of human organization and communication. It will focus on analysis of the complex relationships between social factors and the educational process.

Increasingly more facets of the curriculum are evaluated by a diversity of methods. Sometimes rather formal methods of evaluation are employed, such as the assessment of the relative efficacies of having ten weeks of continuous practice teaching in the schools as compared with only five weeks in school followed by five weeks of micro-teaching, and five weeks of micro-teaching followed by five weeks of classroom teaching. Evidence so far seems to suggest that the last treatment is the most effective, but interpretations of the results of the experiment are more involved and beyond the scope of this paper.

More informal procedures, such as having individual discussions with students or a "jam" session with the entire student body to explore their moans
and groans, have also been adopted. Changes in the current year's teaching practice pattern are probably attributable in large measure to Faculty's acceptance of the students' criticisms.

The faculty has also had a chance to assess the strengths and weaknesses of students as a whole by item analysis of the responses to each item or question in the written examination, in particular the objective type paper. Some of the results of item analysis are highly revealing. For example, item analysis of the following question showed that very few students picked C, the keyed answer, with the result that the item has very low facility and a low discrimination:

"The most legitimate criticism against automatic promotion is that it:
A. Increases the problems of classroom teaching.
B. Gives pupils an excuse not to study.
C. Gives teachers an opportunity to shirk responsibility.
D. Leads to poor examination results.
E. Overlooks individual differences."

This is symptomatic of the pervading view that automatic promotion is necessarily evil and that teachers are blameless in such consequences as are depicted in responses, A, B, D, and E of the question. This is an example of the confusion between means and ends, for it is the predominant attitude of teachers who pass on the buck whenever they encounter a difficult child that is solely responsible for the apparent disadvantages of automatic promotion. This particular example was used as an illustration in a lecture, in the hope that students could learn from the misconceptions of their predecessors.

Appraisal of Teaching Practice Objectives and Priorities

One area which is undergoing systematic change arising from the rigorous evaluation or review of the Diploma in Education curricula pertains to teaching practice. Earlier attempts at recommending organizational changes have tended to focus on the solution of specific problems as perceived by staff or students. While such an approach is legitimate and even fruitful, the remedies it suggests can lead only to the partial fulfillment of the explicit or implicit objectives of teaching practice.

The faculty however recognized that until and unless it adopted a total systems approach to the problem, which directly or indirectly affect teaching practice, involving, for instance, the clear definition of both our objectives and priorities for the selection of optimal programs for their attainment, our various efforts may become unrealistic or even futile.

In attempting to derive objectives and priorities in teaching practice, the basic associated elements were considered to be:

(a) The course work from lectures and discussions,
(b) Individual predispositions arising from previous experiences or observations,
(c) The teaching practice experiences in the school,
(d) Simulated teaching practice experiences such as micro-teaching,
(e) Immediate future teaching situations under existing constraints, and
(f) Ultimate future teaching situations under hopefully more ideal conditions.
One way of arriving at the objectives of teaching practice is to consider the interactions between pairs of elements as shown in the scheme below:

One important objective, derivable from the above scheme, is the intimate interplay of theory and practice. It suggests that there should be a closer relationship between what is suggested, especially in methods courses, and what is expected during teaching practice. Thus, those who are going to be involved in teaching practice supervision must also be intimately involved at least in the formulation of guidelines to be incorporated in the methods lectures. More important, ways and means ought to be explored for the staff to demonstrate that they do practice what they preach. This may be done either by means of actual demonstration lessons in front of a live class with a few student observers or through micro-teaching, or else by showing that in planning, conducting and evaluating lectures, the faculty staff is guided by a similar set of principles which we expect students to adopt when they plan, conduct and evaluate lessons which they teach.

Since students have different backgrounds, in order that our programs can be made personally meaningful, individualized approaches need to be adopted. The rigid time criterion which the faculty has adopted in inflexibly requiring each and every student to undergo exactly 10 weeks of teaching practice is therefore open to question. Instead the faculty decided that it should apply a performance criterion wherever feasible, so that a student who has reached optimal performance need not be required to undergo further supervised teaching, while conceivably there would be some who require a longer period or closer supervision.

Some preliminary analysis of data on the science students' rating of micro-teaching experiences suggested that micro-teaching is regarded as less interesting, valuable and professionally challenging than classroom teaching practice. Despite the fact that the majority indicated that they liked being part of an experiment, they were generally overwhelmed by the artificiality of the situation and were relatively unclear as to the ends to be achieved by the micro-teaching experience. It was therefore felt imperative that, if micro-teaching is to be usefully employed to supplement and complement classroom teaching, there should be closer linkage between the two so that students are enabled to identify specific experiences that are transferable from one situation to another.

The faculty felt also that the reason why it has been relatively ineffectual in suggesting to the Diploma in Education students the applicability of theory
to practice is probably because the practice we refer to is often rather remote from the existing situations in schools, where a variety of constraints operate to prevent the practice of theoretical principles. As long as we urge students to prepare elaborate lesson notes which they know they would not have time to write out as regular teachers, as long as we insist on inquiry methods without showing how with the use of group methods and sampling procedures the syllabus can be “covered” in good time, as long as we stress evaluation and the catering to individual differences without offering positive and specific suggestions that are workable within the limitations of time at the teacher’s disposal—as long as we continually fail to take full cognizance of the multitude of constraints which confront a regular teacher, we cannot expect our students to take our suggestions seriously. At most, they act in ways which they think will satisfy us for the duration of the course. Hence, a priority objective was gearing the teaching practice experience to the conditions that successful students would encounter in the immediate future.

Finally, the faculty felt that it cannot of course neglect the possibility that with improved conditions in schools, some of its graduate teachers may be able to function as effective and creative change agents. For this reason, they must be exposed to innovative ideas and given opportunities to evaluate them. However, the faculty agreed that it ought to be made crystal clear that it does not expect them to apply all these ideas all the time.

To summarize, in evaluating alternative plans for teaching practice and perhaps other aspects of an overall teacher education program, the faculty agreed that it should examine the extent to which the following objectives are likely to be attainable:

1. interplay of theory and practice,
2. catering to individual differences,
3. close-knitting of micro-teaching and macro-teaching (or classroom teaching),
4. attention to teaching under existing constraints,
5. exposure to teaching under idealized conditions.

In accordance with the above considerations, the teaching practice arrangements at the faculty have undergone a complete change. In order to bring about closer correlation between theory and practice, the faculty has been able, by such means as the pairing up of students so that they could mutually benefit from joint planning and evaluation of lessons and thereby reduce the teaching load to a minimum, to confine the posting of students to schools in the Petaling Jaya, Kuala Lumpur and Klang areas, so as to bring the students back in the afternoon for discussions on the principles of educational practice as well as the practice of educational principles. In addition, through the specification by schools earlier in the year of topics likely to be taught during teaching practice, it is possible for staff and students to discuss these “contracts” in terms of structure and sequence, as well as materials required and problems likely to be encountered, well before teaching practice.

With flexibility in arrangements for both micro-teaching and classroom teaching, it is possible to cater to the individual needs of students in teaching practice. Thus, in some cognate teams the degree and nature of supervision for students varies according to needs, while in other teams stronger students are employed to assist those who are weaker.

The micro-teaching is also less regimented than previously practiced so that these scaled-down lessons are used only by particular students who wish to practice a few skills at a time. Throughout emphasis is made concerning the extent to which the micro-teaching and macro-teaching situations
are similar or different so that the strengths of micro-teaching may be capital-
ized upon, while its weaknesses could be used as takeoff points to discuss what
adjustments are needed in the real classroom situation.

With the reduction of the number of periods required for teaching
practice, it is similarly stressed constantly that in the actual situations, with
heavier load, crowded syllabi and large classes, special arrangements are
needed and from time to time the attention of the student teachers is drawn
to finding promising practices to overcome pressing problems of the class-
room under existing constraints.

At the same time, since opportunities often arise when teachers may have
some occasion to engage in more time consuming preparations of instructional
aids or the schools may have such equipment as projectors and tape recorders,
all the students are exposed to a basic audio-visual course. Judging by the
number of students who turn up at the AVA workshop each afternoon or
weekend, and by the more extensive use of instructional aids this year, it may
tentatively be inferred that this venture is quite successful.

Some Concluding Remarks

In this paper we have attempted to provide brief glimpses of some of
the processes and products of curriculum evaluation in teacher education
that have taken or are likely to take place in Malaysia. However, if we define
curriculum evaluation as the systematic and continuous process of gathering
relevant descriptive, explanatory and/or predictive data in order to aid de-
cision making with respect to the curriculum, then our recent attempts are far
from satisfactory, even though we seem to have come a long way from the
pre-Independence ad hoc arrangements based on practically no evaluative
information regarding the appropriate curricula for teacher education.

We still need better conceptualizations to aid us in continuing to collect
useful data unimpeded by unavoidable constraints such as new policy pro-
nouncements or disproportionate increases in responsibilities elsewhere. Per-
haps better coordination among the different agencies that have a stake in
the ultimate production of an effective and efficient teacher is necessary.
There ought also to be continuity in the information available from separate
agencies who deal with a potential or trained teacher at different times of
his life span. In terms of a teacher education institution, incoming background
data and outgoing follow-up data are as important, if not more important,
than the transactional data which we tend to accumulate. Perhaps too, a
much neglected area involves the process of communication concerning the
importance of and results from curricular evaluation in teacher education.
We need to convince both purveyors and consumers of curricula in teacher
education not only of the need to evaluate but also of the importance of
evaluating accurately and adequately, systematically and continuously. Much
remains to be done in the evaluation of teacher education curricular in
Malaysia in the areas of better conceptualization, coordination, continuity and
communication.

NOTES

1 In Malaysia, primary schooling comprises six grades (Standards 1-6), after
which pupils can proceed automatically up to Form III where they sit the Lower
Certificate of Education public examination. Usually less than 20% would continue
with Upper Secondary education, terminating either in a School Certificate at
Form V or with a High School Certificate after a further two years at Form VI level.
News and Notes

International Education Year and the International Council on Education for Teaching

The designation of 1970 as International Education Year by the United Nations symbolized a worldwide recognition of the emergence of a global society. It is a society marked by the interdependence of social and economic systems, an interpenetration of all lives by each, and a growing unity of purpose as cultures and nations engage in efforts to bring order and prosperity out of chaos and poverty.

Education is the key word in International Education Year because any improvement in the quality of life throughout the world is directly related to the quality of the world's educational systems. The word international emphasizes both the universality of change and the commonness of problems and forces within societies and educational systems.

A universal characteristic of all efforts to improve education is the need to produce appropriate educational personnel of high quality. Teachers, college faculty, counselors, administrators, research scholars, subject specialists, and others must be carefully selected and well trained if the future educational systems are to meet the challenges of the last quarter of this century. In this sense, the improvement of teacher education is an international priority; it is a common requisite of all contemporary societies, whatever the level of development.

Oversely, the improvement of teacher education within each nation requires that it draw some of its substance and attitudes from the total world. The advancement of knowledge, the enhancement of understanding, and the improvement of the human condition have historically been a product of the injection of new knowledge and ideas from one culture into another. The teacher and teacher educator must be in the mainstream of this infusion and must participate in the process if the vital exchange between cultures is to flow uninterrupted.

The International Council on Education for Teaching exists to encourage and facilitate this educational interaction and cooperation across cultures and national boundaries. In 1970 ICET enabled scholars, government officials, administrators and specialists on three continents to come together at regional conferences and exchange ideas and techniques in the field of teacher education.

Regional Meetings

During August, 1970, the Council conducted two regional international conferences in Asia and Australia designed to evaluate ICET's current and proposed activities in that part of the world as well as to focus on the prob-
Reflections on Education in the Emerging World
by a Politician-Educator

ROBERT N. THOMPSON
Member of Parliament, Canada

I do not intend to tell you what the answers are to the crucial challenge of making education on the international or Canadian scene more relevant. Rather, I wish to share with you a few of my experiences overseas and to pose a number of vital questions.

There are two aspects of my fourteen years in Africa as an educator which have direct relevance to my remarks. First, I had the fortunate opportunity in Ethiopia to become deeply involved in that country's educational and cultural systems. My original assignment, following my military experience with the Ethiopian Air Force, was as a high school teacher. From this starting point came successive appointments as high school principal, superintendent of a provincial school division, and then as what we in Canada would term deputy minister of education. This was broadened later by six years as head of a rural program of developing education under a Mission sponsorship.

The second aspect of my African years, for which I have always been grateful, is that I had the unique opportunity to serve directly under African officials of an African Government, rather than being employed by, and thus directly responsible to, the government of a foreign country or a foreign company or agency. This meant learning the language of my superiors, as well as that of those who were responsible to me. It also provided the privilege of becoming completely identified as part of the community and the work we were mutually endeavoring to accomplish. Not too many "foreigners" have had such an opportunity, and I must confess that this experience has greatly influenced my thinking, my attitudes, and my outlook to the emerging world and its peoples, both educationally and politically.

In observing the work of the Peace Corps volunteers and of Canadian young people serving with CUSO, I think that the remarkable success of these programs has largely been due to the fact that the volunteers have had the opportunity to serve with their national counterparts as equals rather than as charitable superiors. To really understand and appreciate the educational needs, or any needs for that matter, in an emerging country, it is imperative that we place ourselves next to the nationals of that country, seeing their problems and experiencing the pressures from the traditional and tribal aspects as well as those on the modern economical, social and political sides.

Of prime importance are attitudes, motivation and basic objectives. The failure of much "foreign aid" in the years since World War II to reach its objectives is largely due to the inability of foreign governments and their officials to see and to understand the reality of the situations faced through the eyes and the minds of the people they were hoping to help. This credibility gap has all too often submerged the legitimate good intention which motivated the carrier of that aid, as well as that of the politician and the taxpayer who made it all possible in the first place.

Time does not permit me to elaborate on a definition of education. In fact, dare we as professional educators even attempt a definition, in view of the many which have been given down through the ages? Perhaps it would

Address delivered at the ICET Conference in Lethbridge, Alberta, Canada, September, 1970
be better to consider education in terms of schools and school systems, their establishment, development, expansion and change, in order to keep pace with current circumstances in varied situations, keeping in mind the needs of the people of the community and the larger aspect of civilization itself.

Now what do we mean by the "emerging world?" From what is it emerging, and to what? In what way is education a crucial component of this emergence? There is a series of problems which, as I see them, from my dual position, must be considered, and which I believe are relevant to you who are involved in educational development. It would seem that answers must be found to these problems if we are to fulfill our specific and general responsibilities to the peoples of the emerging world, as their particular governments and officials attempt to reach their particular objectives.

First, from the standpoint of the emerging nations, I would ask: What are the reasons, what is the rationale for technical assistance to less developed nations? Why should this be? Who will be the beneficiaries, locally and on a national scale, and in terms of international cooperation and accord? Within such assistance from more developed to less developed nations, to what extent should and could educational assistance be part? What could be the role and scope of educational assistance within aid and development programs generally? Within emerging nations, what is the role of the government with reference to educational development? In what ways do politics enter into principles, planning and implementation of educational development and the directions and levels of educational development?

The recent Ottawa conference, which brought thirty university vice-chancellors from twenty countries together through the sponsorship of the Inter-Universities Council of Britain, emphasized the need for close and continuing liaison and communications between institutions, governments and agencies. At the university level alone, it was stressed that changing needs caused by growth in physical size, types and numbers of programs, as well as numbers of students, are such that current problems are vastly different to those of a few years ago.

The decreasing dependence on foreign professors, and the decreasing numbers of undergraduates going abroad for study have precipitated a complete change in the needs of the new universities in the emerging countries. New priorities have emerged as these academic institutions pay increasing attention to the economic and social problems of their own areas. The University of Ibadan in Nigeria, with its Institute of Tropical Agriculture, is an excellent and positive example of this. The development of a composite high school system in Thailand is another, at a lower but nevertheless an essential level.

Second, from the position of the more developed and donor nation, I believe it is basic to our development program and planning that we ask ourselves what kinds of educational assistance and participation could be provided for the less developed countries within the more developed countries. What are the capabilities and capacities, and what willingness is there for public and governmental support for this export of expertise, and for this use of internal facilities? Within the more developed countries, by whom and through which organizations, official departments and channels, and agencies, should the nature of educational assistance for overseas be arranged and implemented? What is the role of governments, national, provincial and local, in this connection? What is the role of voluntary groups and organizations?

The recent establishment of the International Development Research Center should provide the research and correlating facility necessary to reach
an adequate answer to many of these questions. It is expected also that its international scope can provide coordination patterns so essential to positive results. This task will not be easy, with a more complex world than ever. I am reminded of the efforts of the Canadian delegation at last year's meetings of the United Nations to pass a resolution which would in effect provide for a comprehensive information approach, both at the giving and the receiving end of multi-lateral assistance through U.N. agencies, with the intent that increased multi-lateral giving and more effective assimilation would result. To the surprise of the Canadian delegates and others, the representatives of the emerging nations opposed it. In the first instance, only the Philippine delegation gave full support. It took weeks of negotiation and modification to pass the resolution, which was intended to strengthen multi-lateral aid, and which Lester Pearson's Commission Report on International Development strongly favored.

I am convinced that the whole question of international development as it relates to narrowing the poverty gap will only be answered by a deliberate act of policy on the part of the more developed nations, and a determined effort by the emerging nations to be more realistic and responsible in their own development. The sub-human conditions which exist today for two-thirds of the world's peoples are, as Maurice Strong, newly appointed Assistant Secretary General of the United Nations, recently stated, "an affront to the conscience of all mankind."

Mr. Strong went on to say: "But we do have a choice. Neither triumph nor tragedy is inevitable at this point. The decisions which determine our course will be largely taken in this generation. Today the problem of world poverty is primarily a question of man's priorities . . . The development of foreign aid programs reflects a complex and changing mix of motivations on the part of both governments and people—the strongest and most consistent of which is philanthropic and humanitarian, conditioned and modified by what are seen to be Canada's economic and political interests."

Finally, I must ask myself, my colleagues in education as well as in politics, what role within Canada and in other more developed countries could a politician, a member of a national legislature, play in the direction and/or implementation of assistance programs in educational development overseas? What are his constraints? What are his opportunities?

Tragically, it has been and still is very difficult to develop a full-scale Parliamentary debate in the area of external affairs or international development, apart from some distinct and threatening crisis. Likewise has it been difficult to generate much interest among the general public regarding the governmental aid or development programs. It appears in both areas that the sense of personal and national security is deadening and the depth of personal involvement is superficial.

Since returning from Africa, in spite of my experience and familiarity with many parts of the world, I have found it necessary to get out into some part of the emerging world at least once a year, and more often if possible. If it were within my authority to decide, I would require that every Senator and every Member of Parliament have the opportunity of visiting some part of the emerging world at least once every two years.

It has been my continuing goal to bring before Parliament and its committees, to professional institutions and associations, to civic organizations, as well as to the general public, what I see the situation to be in the emerging world, and to endeavor to translate it into practical terms which can be understood in light of our responsibilities to the rest of the world. This is
why I speak to academic audiences as often as time and opportunity permit. This is also why I currently serve on the faculty of a university. This is why I regret very much that high schools and elementary schools are all too often closed to politicians. I find it hard to understand why, in ten years of political involvement, I can still count on the fingers of my two hands the number of times I have been given the opportunity of speaking to schools in my constituency, or even in my own province. The fear of public opinion or the disinterest in the affairs of our nation by teachers is regrettable. Why cannot educators be the first to understand that our schools must lead the way in direct knowledge and experience of what goes on in Parliament, what their representatives actually think about such matters as education in the emerging world?

It seems to me that a politician does occupy a unique position in and out of politics, within his own country and even beyond, as an interpreter and catalyst of policies and needs. We have a very long way to go before we in Canada reach the desired goal of 1% of our Gross National Product in development assistance to the emerging world. We have even further to go in our thinking, and in what we do or in what we present to the youth of the day in the classrooms of the nation as to “how it is.”

In conclusion, these are a few questions I leave with you; questions to which I do not know all the answers, but which I often think about. Where is the meeting point between the ideal and the practicable in the assistance that a more developed nation could provide for a less developed nation? In what ways would a recipient nation’s sensitivities be a potential and actual factor? What is the position of public opinion as a factor in both the donor and the recipient nation in this connection? What could be an assessment of the potential contribution that the politician-educator could make in the furtherance of educational development and international progress and accord?

I do not know all the answers, but I do know that we must increase our efforts to find them.
The Education of Teachers Around the World

Each issue of the ICET Annual Report highlights one nation's system for preparing teachers. For 1970 Mr. Glenville Owen, Principal of Mico College, Jamaica, was requested to describe selected aspects of teacher education in Jamaica, the site of the 1971 World Assembly. The articles in this series are designed to provide the reader with some insight into the differences and similarities among teacher education programs throughout the globe in order to improve the basis of communication and cooperation among the world's teacher educators.

Teacher Education in Jamaica

GLENVILLE H. OWEN
Principal, Mico College, Kingston, Jamaica

Teacher Education Programs

Teachers in Jamaica are prepared in two different programs. One of these is offered in the teachers colleges and the other in the Department of Education of the University of the West Indies. The former program prepares teachers for the primary and junior secondary schools; the latter for the high schools. There are six teachers colleges with a total annual enrollment of nearly two thousand students. Only two of these institutions are owned by the Government of Jamaica; but as there is a partnership in education between the State and the Church, the Government financially supports the other four colleges also.

The six teachers colleges are brought together under the University of the West Indies Institute of Education. This Institute, as a regional organization of teachers colleges, also embraces all the other teachers colleges in the West Indian territories served by the University of the West Indies. The Institute of Education is a Department of the University of the West Indies, but its constituent colleges are not colleges of this University. The Governments of the cooperating West Indian territories have delegated to it the responsibility for the professional supervision of their colleges. It functions through a Board of Teacher Education which approves and evaluates the syllabi of the various colleges. This Board, on which sit the Principals of colleges and representatives of the Ministry of Education and the Jamaica Teachers Association, is chaired by the Director of the Institute who enjoys professorial status.

Each of the teachers colleges in Jamaica is regarded under the Jamaican Education Law as a public education institution and as such is governed by its own Board of Management. The Ministry of Education appoints members to these Boards, but in the case of institutions which are not owned by the Government, the owners nominate two-thirds of the members including the Chairman.

All candidates seeking admission to a Jamaican teachers college must be older than seventeen years of age. They must have attained the minimum standard of a General Certificate of Education with passes in four subjects including English. This standard is comparable to the eleventh grade in an American or Canadian high school. Candidates, however, are also eligible

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for admission if they pass a local examination called the Jamaica School Certificate in five subjects including English and mathematics. This standard of attainment is comparable to that of ninth grade in an American high school. Every aspirant to a teachers college who has attained these standards is required to take a Common Entrance Examination set by a Clearing House Committee.

The Clearing House Committee is comprised of the principals of the colleges, a representative of the Ministry of Education, and a representative of the University of the West Indies Institute of Education. It sets three papers for the examination: English, with the emphasis on comprehension and the use of words; Mathematics, to test principles; and Learning Potential. The scripts are marked by computers. A cut-off point is decided upon by the Committee and students who fall above the cut-off point are interviewed by the colleges which they select as their first choices.

All prospective students must satisfactorily pass a medical examination given by the college's medical officer. The candidates must be of good conduct as certified by their last principal, their minister of religion and another responsible citizen in their community.

All students receive a “free place” at the colleges which entitles them to free tuition, board and lodging. They must pay all other expenses such as the cost of books, laundry, clothing and transportation.

The period of training is three years, two of which are spent in a teachers college and the other in internship. Students enrolled in the Intramural Course are prepared to teach in the primary school and some in the junior secondary school. Primary school teachers are prepared to teach the entire curriculum to children of ages six to twelve. Junior secondary school teachers are prepared to teach remedial reading and two other subjects to students age twelve to fifteen. All students study English language and literature, child development, psychology of learning, and participate in physical education and music. Other subjects taught are: mathematics, general science, social studies, industrial art, art and crafts, home economics, and religious knowledge.

While students may elect to enter either course, no one is admitted to the junior secondary course at Mico College for example, unless his academic attainment at admission is no less than that of a grade seven student of an American or Canadian high school, i.e. he should have passed at a General Certificate of Education (ordinary level), a minimum of four subjects including English.

The small internship is a relatively new aspect of course organization, having been established in 1967. One of the major reasons for the establishment of the internship was the acute shortage of teachers in this country. Additionally it was hoped that the internship would provide a learning experience not yet utilized in our systems.

The interns are graded as pre-trained teachers. They are assigned to schools according to the needs of the schools and are supervised by teachers selected and appointed by the Ministry of Education. The faculties of the college do not participate in the supervision but are invited to participate in the final assessment. At the end of the year of internship, the interns return to their respective colleges for a one week seminar. The subjects discussed at the seminars are determined from questionnaires which each college sends out to its students to discover their concerns or areas in need of improvement.
Mico College

Mico College is a good example of a Jamaican teacher training college, although it has a longer history than the others. When slavery was abolished throughout the British Empire in 1834, Thomas Buxton felt that freedom without education would be of little value and so he started a search for funds to educate the children of the liberated slaves. He heard of the Lady Mico Bequest and took up the matter in the British Parliament. Through the advocacy of Buxton, the Lady Mico Charity was set up as a trust in 1835 to educate the children of the liberated slaves in the West Indies and by December of that year a Mico Normal School was established in Kingston, Jamaica.

Teachers are prepared at Mico for both the primary and the junior and secondary age groups. The program is designed to help the students develop their potential. Great emphasis is placed on character development. Guidance is given through a tutorial system whereby the students are divided into five family groups with an equal number of teachers assigned to each group. To each teacher, who is called a tutor, fifteen to twenty students are assigned for academic and social guidance. There is a Guidance Committee of experienced tutors which deals with students referred from family groups.

For the purpose of academic studies the College is divided into Divisions and Departments. There are Divisions of Science and Mathematics, Languages, Social Studies, Industrial Arts, Art and Crafts, and Education. Each of these Divisions consists of Departments. In addition, there is a Home Economics Department, a Music Department and an Evaluation Branch.

There is a good deal of student participation through a Student Council which deals with disciplinary matters among students, encourages Clubs and Societies and organizes games and athletic programs.

University of the West Indies

The University of the West Indies, through its Department of Education, offers a one year post-graduate course in Education to graduates of the university or of any other university which the Council of the University of the West Indies recognizes. At the successful termination of the course, the student receives a Diploma in Education.

A Certificate Course for one year is offered to experienced teachers who had their preparation in a teachers College. Within the last three years those students who performed at a minimum of B grade level in the Certificate Course are allowed to continue their studies for an additional year in preparation for the Bachelor of Education.

Ad hoc courses in both content and methodology are organized by both the Ministry of Education and the Jamaica Teachers Association, but these are not credit courses. A Committee of the Jamaica Teachers Association is formulating proposals for an In-Service Teacher Education Program leading from Teachers College to a University Degree.

Concerns

The government, educators, students and parents have many concerns about the teacher education program in Jamaica:

1. The standard of general education of the students at admission is on the whole too low. Our Secondary Schools need to produce more students of a higher level of attainment.
2. The period of preparation is too short. A teacher needs the same
quality and quantity of education as any other educated person, in addition to his professional preparation. It is difficult for him to attain this level unless his course of preparation is a minimum of four years beyond high school. At this period of teacher shortage, the four year program could be phased as follows: two years intramural with general goals; one year internship with clearly defined goals; the rest of the course could be covered by continuing education in week-end, summer and correspondence courses.

3. There should be greater involvement of the University of the West Indies in teacher education. There is the need for a School of Education in which there should be a Division of Teacher Education. There should be articulation between the curriculum offered in Teachers Colleges and that in the Division of Teacher Education of the School of Education at the University.

4. We are concerned with the further need to improve the status of teachers through increased salaries, better conditions of service, improved staff-student ratio, reduced over-crowding in schools, improved provision for in-service training and development of professionalism through the enforcement of our code of ethics.

Although these concerns represent considerable obstacles, the progress in teacher education in recent years has been encouraging and there is every reason to believe that it will continue in the years ahead.

NEWS AND NOTES (continued from page 27)

tems of teacher education worldwide. "Curriculum Evaluation in Teacher Education in Southeast Asia" was the theme of the conference held in Kuala Lumpur, Malaysia, August 3-7. Conducted in cooperation with the Faculty of Education, University of Malaya, the meeting attracted some 200 delegates representing ten Asian countries, Australia, and North America. The encouraging presence and participation of a number of student teachers indicated that teacher educators are now being introduced to ICET at the beginning of their careers.

In Sydney, Australia, the conference focused on the contextual problems arising from diversified national cultural traditions and concepts of teacher education. The conference was conducted in conjunction with the World Assembly of WCOTP and resulted in a substantial increase in ICET membership.

At both of these regional meetings there was considerable discussion concerning the necessity to improve the communications and bonds within the teacher education community of Asia. As a result of these deliberations, steps are now being taken to establish national or regional councils to bring the widely scattered teacher educators in this area into closer, more effective contact with one another.

A volume, Curriculum Evaluation in Teacher Education in Southeast Asia, has been published with the assistance of the Faculty of Education, University of Malaya, and is available from the ICET Secretariat.

The third regional meeting of 1970 took place at the end of September in Lethbridge, Canada. Held in cooperation with the University of Lethbridge, this conference focused on the role of international technical assistance in promoting education and teacher education. Lucien Pye, of the Massachusetts Institute of Technology, delivered the keynote address, and a number of other leading figures in the field of educational and economic development also participated.
Africa

The Association for Teacher Education in Africa presented a conference on "Reform in the Professional Education of Teachers in Africa" from March 28 to April 2, 1971, in Kampala, Uganda. Further information may be obtained from ICET Executive Officer, W. Senteza Kajubi, National Institute of Education, Makerere University, P.O. Box 7062, Kampala, Uganda. Dr. Karl Massanari of the American Association of Colleges for Teacher Education represented ICET and the AACTE at a similar teacher education conference in Kampala in October, 1970.

ICET to Conduct an International Survey in 1971

ICET is currently completing arrangements to conduct a study, in cooperation with UNESCO, which will result in an international survey of selected innovative teacher preparation institutions in Europe, Latin America, Asia and the United States. The survey, to be published in late 1971, will emphasize new structural and instructional patterns and the employment of new methodological and technological approaches. A major focus of this study will be the experience of institutions that have attempted to revise the content, methods and style of the pre-service preparation of teachers so as to make it a foundation for their life-long education, which would include the arrangements for periodic in-service education of the former students when they are practicing teachers. If an ICET institutional member is interested in participating in this international project, a representative of the institution should send a brief description of its innovative program and activities to Dr. Frank H. Klassen, Executive Director, ICET Secretariat, One Dupont Circle, Washington, D.C., 20036, U.S.A.

ICET CONFERENCES, 1971

India

In June, 1971, ICET and the Indian Association of Teacher Educators will conduct a conference in India on the theme of "Teacher Education and the Modernization Process." IATE recently elected Dr. G. Chaurasia as president.

World Assembly

Jamaica

ICET will hold its first World Assembly of the seventies in Kingston, Jamaica, August 7-9, 1971. The program is based on three major themes: (a) contemporary social problems, such as racial conflict, student unrest, environmental degradation, and the complex problems of development; (b) the implications for education; (c) the response in teacher education, including case studies reflecting reform movements in the Americas. For further information, write to John L. Collier, ICET Secretariat, Suite 610, One Dupont Circle, Washington, D.C. 20036, U.S.A.