

COUNTRY PAPERS

TEACHER EDUCATION IN AUSTRALIA

Until quite recently students preparing to be teachers in government schools in Australia were prepared, in each state, in either a university or a state teachers college.

The universities were, traditionally, the institutions in which the majority of teachers of academic subjects in secondary schools were prepared. The normal pattern of preparation involved the completion of a first degree in the academic area which the teacher would profess in schools followed by a one year course leading to a Diploma in Education. The universities in some state often relied very heavily on nearby teachers colleges to provide courses in teaching "method" and for the placement and supervision of students in schools for "teaching practice". The universities have, for the last decade or so, been jointly supported financially by State and Federal Governments and course in teacher education have been so supported.

The state teachers' colleges have been, traditionally, the institutions which prepare teachers for the public primary (elementary) schools of the state. In addition many of them have provided for the preparation of specialist secondary teachers in fields not provided by universities - art, music, physical education, industrial arts and home science. The course usually consisted of concurrent studies of subject matter, educational theory and teaching methods with periods of practical experience at intervals throughout the period of training. Recently this has been extended to all states to a three year minimum period. In the colleges this applied to most courses though in some secondary areas for which there was no university equivalent such as Art or Music, four year courses were provided. Further, to meet the needs of an expanding secondary school system (expanding not only because of population growth but also because students are remaining in secondary schools longer) many colleges were called on by the State Education Departments which administered them to provide courses for teachers of the "academic" subjects in the secondary school.

Because public primary and secondary education has been constitutionally the province of the states, the colleges were funded directly by state governments and were controlled by the States' Departments of Education. The degree of academic and administrative control varied from state to state but none avoided the criticism that in comparison with the universities they were more narrowly based, more dedicated to producing the type of person who should teach or the type of person who the employer (the department) wanted and hence it would be an improvement were they to be freed of their departmental ties.

From the early 1960's as the result of government decisions on the recommendation of the Martin Committee, a new type of tertiary institution has begun in Australia. These are the colleges of advanced education which are seen to be no less demanding academically than universities but to be interested in vocational preparation rather than academic research. Although these colleges began most strongly in the area of industrial technology and in some states have retained this character, in other states, particularly in the regional or provincial colleges, they have developed with a large proportion of their work in teacher education.

Though these colleges are usually controlled by a body which is responsible for seeing that they provide courses which meet the states "vocational needs", they are free from the state department and from the tradition that they are interested particularly in one kind of teacher. Because of their orientation to vocational preparation, vocational courses including teacher education courses are planned as an integral whole whether for secondary or primary teachers. The implications of their advent on the teacher education scene will be referred to later.

These colleges like the universities are funded jointly by the state and federal governments.

The majority of students in universities, state teachers colleges and colleges of advanced education are destined for the state's teaching service but some students are prepared for independent schools and some for overseas countries.

As well as the state funded colleges there are about 20 non-government teachers colleges - most of these are small in relation to state teachers colleges or colleges of advanced education. The majority have been established by the Catholic Church to provide teacher education for the Catholic Education Service but some provide for other independent schools. As well as the Catholic Colleges, the next largest group would be the schools preparing pre-school teachers for schools run by the various pre-school associations in the states.

Like so many countries, Australia has within recent years had a number of reports on post-secondary education including teacher education which have influenced action in relation to the provision of teacher education programmes. To these have been added a number of reports dealing with education in the schools and these also have had an influence in teacher education. When one adds the long discussions which have taken place in Britain and North America on the development of teacher education programmes to the growing public awareness of the need for larger numbers of highly qualified staff in schools in Australia the fact that teacher educators see themselves in an era of change is understandable.

The directions in which teacher education seemingly is proceeding may be examined under a number of headings.

Financial Support

Prior to acceptance by the Commonwealth of the Murray Report recommendation that University education be funded jointly by the State and Federal Governments, the situation was simple. The state funded university and state teachers colleges, the colleges of advanced education had not been born and the non-state colleges were funded independently.

With the Commonwealth and states' assumption of joint funding of university education a division appeared to occur in that while teacher education in universities was funded, that in state teachers colleges was not.

The basis for this division was presumably that the state teachers colleges provided for the needs of the state teaching service in meeting its constitutional responsibility for compulsory schooling. The universities had wider tasks which were of national rather than state significance and hence within the province of the Commonwealth. The Federal Government had

recognised the need of the states for assistance in developing teacher education institutions and from 1967 made grants to the states for capital works without the requirement that the states match these grants but on the understanding that some of the places so provided would be for students not obligated to state service.

With the advent of the colleges of advanced education whose teacher education programmes were funded automatically with other programmes from 1970 onward, the anomaly that state teachers colleges alone of the teacher education colleges were outside federal funding provisions was recognised. The Federal Government has now offered to support, in the same manner as colleges of advanced education, state teachers colleges provided that they are moving toward independence from the state authorities. The preference of the federal authorities that teacher education be carried out in institutions preparing students for other vocations has also been reiterated. The implications of these policies for the administration of state teachers colleges will be examined when the administration of colleges is examined.

At the same time, in line with the Federal Government's policy of providing greater assistance to pre-school education, the same offer has been made for the funding of pre-school colleges under advanced education auspices. The movement of these colleges from the control and administration of the agencies which control them at present to a form of government which satisfies the policies of the various states for the government of colleges of advanced education has yet to be developed.

Administration

While there has been growing pressure for the Federal Government to fund teacher education in state teachers colleges there has also been a movement to separate the state teachers colleges from the States' Departments of Education. The close relationship between the training authority and employer was seen by its critics as preventing the colleges from developing courses which might be considered truly tertiary rather than an expression of the needs of the employer.

These two movements have now come together in that the latest Federal Government offer to fund teachers colleges is conditional on "the colleges moving to independence of the state departments of education".

In some states the movement has been to government by a corporate council in the same manner as colleges of advanced education and the state teachers colleges are to all intents and purposes to become colleges of advanced education with a single purpose - that of preparing teachers rather than providing a variety of educational courses. In these cases a regulatory body regulates the development of courses to meet the community need, approves the standard of courses and the awards to be gained upon successful completion of the courses.

In other states the state teachers colleges have formed a parallel system to the universities and colleges of advanced education and have a body at the state level which performs the regulatory functions mentioned above.

Whatever the arrangement regarding state teachers colleges as colleges of advanced education or as separate colleges, the movement away from state departmental control is clear.

The implications and administrative consequences of this have not yet been developed but there are a number of immediate implications. The first of these is that machinery be set up to encourage, indeed ensure the preparation of a teaching force of sufficient size and appropriate skill to meet the needs of a state education policy.

The state departments whose responsibility it is to develop policy in relation to curriculum and school organisation must have avenues whereby their needs are brought to the knowledge of the institutions preparing teachers. In most states this is done by the regulatory body which looks to the development of courses and places the department's needs alongside the needs of the state for other courses and other vocations. Equally the institutions will seek to develop new courses which meet needs as they see them or use expertise which they possess and these aspirations must also be fitted into the states' capacity to support courses and to make priorities. While the states may, and do, seek the further development of courses which will produce teachers who are skilled in the task of teaching Aboriginal children, the children of migrants and the physically and intellectually handicapped, these have to be matched with the states' need for teachers with skills in the teaching of new courses in the secondary school which are designed to meet the needs of the student who stays longer at school but does not aspire to tertiary education and the need for teachers with skills in teaching a growing pre-school population. All these needs have to be measured against the states' ability to provide these courses and courses for scientists, engineers and accountants. While the close control of training and employment may have had some advantages, the new arrangement allows teaching to stand with other professions in competition for resources.

There is in Australia growing support for the view that it is advantageous to have a teacher prepare in an institution which has students preparing for other careers. There is the contrary view that the sense of professional commitment and the greater integration of course content, which is possible in single purpose colleges, make these preferable. There is little empirical evidence either way though research is being conducted on a nation wide basis to define, if nothing more, the patterns of teacher education courses in the institutions.

Within the institutions the movement away from the control of the state department has, along with the general world wide movement for greater participation of staff and students in decision making, brought changes in the internal academic structure. While the process is far from complete there are probably no institutions where staff are not involved in the academic government of the institution and few, if any, where students are not similarly involved. For example most of the governing councils of the colleges will, when independent, have student members.

The increase in the number of institutions preparing teachers, and movement of these institutions away from close contact with state departments bring some problems in the recognition of qualifications. Whereas each state formerly employed a majority of teachers from teachers colleges which it controlled or universities with which it had close contact by reason of the participation of teachers college staff in the universities' programmes, it will now employ a majority of teachers prepared in institutions over which it has no direct control. A community which compels children to attend school must be interested in the quality of the teachers it must provide. The registration of teachers has become a matter on which

discussions have taken place both in teacher organisations and within departments, with the result that a growing number of states are legislating to require teachers to be registered and to meet the qualifications necessary for registration. The machinery differs in that one state has separate registration authorities for different kinds of teacher (primary, secondary, technical) while others have provision for one body to maintain a register of a number of classes of teacher. The purpose is clear: the employer must be able to employ a teacher knowing that his qualifications have been scrutinized and that they meet appropriate standards.

Courses

There has long been a recognition that courses for the education of teachers have four elements which contribute to the development of the person who is regarded as a teacher.

The first relates to the academic development of the teacher-to-be. He is expected to have a minimum level of academic competence in the subject or subjects he wishes to teach as well as the academic skills to add to that knowledge; preferably, he should have pursued the study of some area of knowledge to the depth which is to be found in a person with a degree of specialization in the field. Traditionally this has been regarded as being accomplished, either by gaining a degree from a university before undertaking teacher education or, for those under undertake courses in teachers colleges, by taking academic courses concurrently with studies in teaching theory and practice. More and more the necessity for relating the academic work to the remainder of the course is being examined. The implications for curriculum construction of greater understanding of the basic structure of a subject are leading some teacher educators to the belief that this part of the teacher's preparation might require courses, which are no less rigorous, but which give different insights into the subject matter than those required for academic research in the field or in a vocation other than teaching.

Secondly, the study of the theoretical basis of teaching is an essential part of the teacher's preparation on which he bases the activities he performs with his pupils. This element is usually carried out in a course (or courses) with the academic title "Education". The nature of the subject Education has varied a great deal from place to place and time to time and a good deal of examination is going on among teacher educators as to what constitutes Education and how, from its study, principles for classroom practice might be best developed. Typically, Education courses are an amalgam of the contributions which philosophy, psychology and the social sciences may make to the problems of learning and teaching.

From these courses the third element emerges - the introduction of the student to the approach and teaching methods applicable to the subject and the pupils he teaches. This is attempted through courses in teaching methods, demonstration lessons and practice teaching, all of which may be considerably assisted by the use of audio-visual techniques for illustration, critical examination and recall.

From the second and third element two areas of concern have emerged. The first concerns the most appropriate ways of bringing a student into contact with desirable classroom models. This in turn brings problems for, too often, the student sees the solution of his classroom problems in the imitation of the models he has been shown rather than in the basic

theoretical considerations from which the model has been developed and this indicates the second area of concern and one on which the South Pacific Association for Teacher Education has spent one of its annual conferences. It is the problem of the integration of theory and practice and in turn the relationship between course work and experience in the schools.

The impact which a necessarily more flexible access to the schools will have, when the numbers of students are growing faster than the school systems, is clearly one of the side issues to be solved.

The fourth aspect of teacher education is the development of a student as a person who is a teacher: -

- the sort of person whose own value systems are enough to allow his pupils to develop other values which he recognises as valid but which he could not hold and perhaps might wish that his pupils did not hold.
- the sort of person who possesses sensitivity for others, particularly children.
- the sort of person who can communicate easily with others and present or develop logically and clearly what he has to teach.

Obviously greater participation in decision making in the teacher education institutions will help the development of this maturity, but once more the assertion is made that an institution which has as its sole task the education of teachers is able to achieve this more readily than one with responsibilities to other callings.

As a result of the realisation of these changing problems there has been a great deal of experimentation with teaching techniques in teacher education courses and concomitantly experimentation with methods of assessment of student achievement, which replaces the traditional examination system in the courses.

State schools in Australia have been part of a centralised system administered by a central state department and using centralised curricula. Though the latter have provided the teacher with increasing freedom, other factors will tend to accelerate the process. The sheer size of the operation in the larger states has meant that in recent years management decisions about schools, teachers and pupils have had to be brought closer to the schools. This process of decentralisation has brought into question the appropriateness of having decisions other than management brought closer to schools.

Obviously this movement will have consequence for teachers and the teacher education institutions.

In-Service Education

The in-service development of teachers will change with the change of government of the teacher education institutions. No longer can the state departments expect the student to be prepared to be sympathetic to or knowledgeable of its particular approaches or methods. As a result, as well as that form of in-service education which provides for the

continued professional growth of the teacher, greater emphasis will be placed on the introduction of the new teacher to the ways of the department which employs him in order that he might become part of a team and recognise the degree of professional freedom open to him to practise his profession and influence the practices of others.

REPORTS OF SIGNIFICANCE IN TEACHER
EDUCATION IN AUSTRALIA

- Report of the Committee on Australian Universities
September 1957 (Murray Report)
- Tertiary Education in Australia - Report of the Committee on the
Future of Tertiary Education in Australia to the Australian
Universities Commission
3 Vols - 1964 - 65 (Martin Report)
- Academic Awards in Advanced Education - Report of the Commonwealth
Committee of Inquiry
June 1969 (Wiltshire Report)
- Report of the Inquiry into Salaries of Lecturers and Senior
Lecturers in Colleges of Advanced Education
September 1969 (Sweeney Report)
- Education in South Australia - Report of the Committee of Inquiry
into Education in South Australia
1969-70 (Karmel Report)
- Report of the Committee appointed to review teacher education in
relation to the needs and resources of Queensland and to make recommenda-
tions on the future development of teacher education ("Teacher
Education in Queensland")
1971 (Murphy Report)
- Report of the Board of Inquiry into Certain Aspects of the State
Teaching Service - Victoria
September 1971 (Southwell Report)
- Report of the Committee of Inquiry into Teacher Education (N.S.W.)
September 1971 (Bell Report)
- Report on the Commonwealth Role in Teacher Education
February 1972 (Senate Committee Report)
- Report by a Committee of Inquiry appointed by the Secretary of
State for Education and Science, under the chairmanship of Lord
James of Rusholme (Teacher Education and Training)
December 1971 (James Report)
- Teachers for Commonwealth Schools
July 1972 (Neal/Radford Report)

TEACHER EDUCATION IN ENGLAND AND WALES

The present organisation of the education and training of teachers in England and Wales derives from the reforms instituted following the publication of the McNair report in 1944. Area Training Organisations (ATO's) based on and administered by some 20 universities exercise regional responsibility for the co-ordination and supervision of teacher training within the Government's overall policy for teacher training and supply and recommend successful students to the Secretary of State for recognition for qualified teacher status. The ATO's consist of representatives of the interested parties: the universities themselves, the colleges of education and other training institutions, the local education authorities and voluntary bodies who provide the colleges, and the teaching profession.

The basic framework has endured for more than 20 years but it has been required to contain formidable changes and developments not foreseen when the ATO's were set up. Chief of these has been a massive increase in the magnitude of the operation particularly in the 1960's, occasioned by an increase in the birthrate which added one million children to the school rolls in the period 1961-71, whilst in the same period school staffing standards were improved from a pupil/teacher ratio of 25.3 :1 in 1961 to 22.6 :1 in 1971. Early in the 1960's the decision was taken to extend from 2 to 3 years the minimum period of post-18 higher education and training necessary to attain qualified teacher status. To attract older people to the profession, courses for mature entrants were developed and some 20% of new teachers are now drawn from this source. Since 1967 4-year courses for college of education students of high academic and professional potential have been developed, leading to the award of B Ed degrees; about 10% of entrants to such colleges now qualify for this award. In recent years increasing numbers of university and polytechnic graduates have sought one-year professional teacher training courses, so that about five thousand of them were admitted to colleges of education in 1972 in addition to an equal number training in university departments of education. These graduates, whether trained in university departments or colleges of education, may be prepared for teaching in any part of the age range. To accommodate all these developments the number of training places was multiplied almost threefold in the decade, the capacity of existing colleges of education was expanded, new colleges were founded and departments of education were formed in some of the polytechnics created in the 1960's.

Despite these achievements, and perhaps partly because of them, there developed during the late 1960's an insistent and growing concern about the structure and content of teacher training. This concern focussed particularly on the monotechic nature of colleges of education, their comparative isolation from other institutions of higher education and the fragmentation of courses inherent in their dual function of providing both personal higher education and professional training for their students. A Select Committee of the House of Commons began a major study of the content, structure and organisation of teacher training in 1969; in 1970 the Area Training Organisations were asked to undertake a thorough review of their own courses and organisation; and late in the same year the new Government appointed a Committee of Inquiry under the chairmanship of Lord James of Rusholme, Vice-Chancellor of York University. The Committee's terms of reference required them to recommend what should be the content and organisation of teacher training courses, whether a larger proportion of teachers should be educated

with students who had not chosen their careers or had chosen others and, in the context of their recommendations on these issues, what should be the role of colleges of education, polytechnics and other further education institutions and universities in the training of teachers.

The Committee was unusual in that it was small; its 7 members, with one exception full-time, were all practitioners in aspects of education relevant to teachers and their professional training; they had available to them a mass of evidence and data already accumulated as the result of the preceding enquiries, to which they added oral and written evidence particular to their own; and they reported in January 1972 a year after being set up. Their report gave rise to energetic public debate which was followed by intensive and comprehensive consultations between the Secretary of State and officers of the Department of Education and Science with representatives of the many interests involved. These discussions established a large measure of agreement about the objectives of teacher education and training and the means to achieve them. The achievement of this consensus was the fruit of investigation, debate, report and consultation extending over a period of years. The process culminated in the issue by Government in December 1972 of a White Paper (Cmnd 5174) "Education: A Framework for Expansion" which incorporates in a wide-ranging statement of policy for education for the next 10 years decisions about the future development of all aspects of teacher training and the institutions in which it is provided.

The Government's objectives and the action proposed to implement them are as follows:

1. A large and systematic expansion of in-service training

Teachers will be released from normal duties for the equivalent of one term in 7 years to participate in further professional training. It is expected that the actual take-up of this new opportunity will result in 3% of the teaching force being absent on secondment at any one time. It is aimed to achieve this level of provision, which represents a fourfold increase in present arrangements, by a phased programme attaining full operation by 1981.

2. A reinforced process of induction in the first year of service

The Government believes that a teacher on first employment needs, and should be released for one fifth of his time to profit from, a systematic programme of professional initiation, guided experience and further study. Furthermore he should work to a lightened timetable so that altogether he might be expected to undertake three-quarters of a full teaching load. During his first year of service a teacher will, by virtue of his initial training, be qualified but will be subject to probation; on successful completion of the probationary year he will become a "registered teacher". To support and guide probationary teachers in their schools, professional tutors will be designated from among experienced practising teachers. Professional centres, based mainly on existing training institutions and teachers' centres, will be established to provide the in-service training for which probationary teachers will be released. Such an innovation will require complex administrative arrangements as well as the development of appropriate training programmes for professional tutors and probationary teachers. It is intended to introduce a national scheme in the school year 1975-76. In the meantime a series of 4 pilot schemes, designed to explore the problems implicit in the new arrangements and to indicate solutions to them, is to be mounted. These 2 elements in the Government's new strategy will be costly in manpower and

money. By 1981 in-service training and induction will together require about 20,000 more teachers than would otherwise be needed and are likely to cost about £55 million annually at 1972 prices. Nevertheless they are regarded as a necessary investment in the future quality of the teaching force.

3. A progressive achievement of an all-graduate profession

The Government strongly support the promotion of new 3-year courses incorporating educational studies so designed that they will lead both to the award of a B Ed degree and to qualified teacher status. The degree will normally be awarded at ordinary level with the assumption that a proportion of students who attain a sufficiently high standard could, if they so wished, continue for a fourth year to take an honours B Ed degree. The normal entry standard will be the same as for universities and the academic content would be no less rigorous than that of existing degree courses. The length of the college year will permit the inclusion of at least 15 weeks supervised practical experience in a 3-year course. It is expected that the award will be validated by the universities or by the Council for National Academic Awards and discussions are now proceeding within these bodies to examine in detail the implications of degree courses with the characteristics described.

The introduction of new B Ed courses of this kind will not immediately lead to an all-graduate entry to the profession since not all applicants have nor are likely in the next few years to have the necessary university entrance qualifications. For the time being, existing certificate courses will need to be maintained for those with lower entrance qualifications, though in diminishing numbers; exceptional students following certificate courses should be enabled as at present to transfer to B Ed courses at an appropriate stage. But the combination of a supply situation which, though related to still further improved staffing standards, promises to be a good deal easier in the next decade than in the last; the rising number of graduates seeking professional training; and the introduction of B Ed courses on this new pattern constitutes a long step towards the Government's ultimate aim of an all graduate profession.

4. Improved training of further education teachers

The Government accepts that a much higher proportion of teachers in further education than at present should receive initial training either before or after taking up appointment and that they should have opportunities for further training later in their careers. There are many complex issues which remain to be resolved in consultation with those concerned.

5. The full integration of the colleges of education into the family of higher education institutions

The Government expects to provide by 1981 for an annual entry to higher education courses from within Great Britain of the order of 200,000 students, representing about 22% of the age group then aged 18. This figure compares with 7% in 1961 and 15% in 1971. This expansion will be achieved for the most part by further development of universities and polytechnics but colleges of education are intended to make a contribution to the growth.

During the period up to 1981 the number of places in colleges of education and polytechnics required specifically for teacher training will, it is estimated, decline from the present 114,000 to something of the order of 75,000-85,000. This number of places will provide for a teaching force which will continue to grow so as to achieve by 1981 staffing standards 10% better than those for

1971, and at the same time produce the additional teachers necessary to allow the full application of the Government's policies for in-service training and the induction year. To make good the places not required for the initial or in-service training of teachers and to participate in the general expansion of higher education, colleges of education some singly others by amalgamation with neighbouring institutions of higher or further education will broaden the educational basis of the courses they offer. Besides intending teachers they will admit students with other educational and professional objectives. One significant contribution to the expansion of opportunities in higher education which they along with other higher education institutions are expected to make will be to develop 2-year courses leading to the Diploma in Higher Education. This new qualification will cater for students of university calibre and will be equivalent in its intellectual demands to the first 2 years of a degree course. For some students it will represent a terminal qualification on the basis of which they will enter employment; for others it will be a stage in their progress to a degree taken by a further year's study immediately or after an intermission of some years; for others again it will constitute the educational base for professional training for a variety of vocation.

By providing other courses than those for intending teachers colleges of education will manifestly change their monotechic nature. They will become, by function, indistinguishable from other institutions offering advanced courses, and thus unmistakably members of the higher education family.

6. Improved arrangements for the control and co-ordination of teacher training and supply, both regionally and nationally

Colleges will continue to seek validation of the courses and awards they offer from existing validating bodies, the universities and the Council for National Academic Awards. Professional recognition of teachers, which is at present conferred by the Secretary of State on the recommendation of ATO's will require the creation of a new machinery, not yet determined, in which the members of the teaching profession should have a major though not exclusive role. The promotion, co-ordination and supervision of in-service training, the improved system of induction, the allocation of teaching practice places and the distribution of teacher training courses, in number and kind, among higher education institutions, will fall to new regional committees which will in due course replace the existing ATO's. The membership of these committees will reflect the interest in the education and training of teachers of the local education authorities, the training institutions and the teaching profession. They will have no executive or financial responsibilities for the services they co-ordinate; these will remain with the local authorities and training agencies, who will need to make appropriate arrangements to meet the costs of the increased services. Because of the impending reorganisation of local government it is not expected that the new committees will be formed until 1975.

For all those involved in the education and training of teachers in England and Wales the 1970's will be a period of intensive innovation. Institutions have to be reorganised to undertake new roles, a new system of regional co-ordination has to be developed, new and expanded services for teachers initiated. Curriculum development and research programmes are in train and more will be required for the design of new courses to achieve objectives as diverse as a rapid expansion of nursery education and the creation of a corps of professional tutors. In all this the many partners to the enterprise have each to make a full and fair contribution. Developments during the past ten years have provided for all the partners' experience of, and the inculcation of attitudes towards, change and innovation which will be fully exploited in the achievement of the challenging and far-reaching plans for the next decade.

TEACHER EDUCATION IN SCOTLAND

Qualification and Registration with the General Teaching Council

1. Anyone who wishes to hold a permanent appointment as a teacher in a primary or secondary school (Education Authority or grant-aided) must successfully complete a course of pre-service training in a College of Education and register with the General Teaching Council for Scotland. The Council, a unique innovation in the administration of teacher education was constituted under the Teaching Council (Scotland) Act 1965, and is the principal advisory body to the Secretary of State for Scotland on all matters concerning the training and supply of teachers. There are 49 members of whom 30 are elected members from the teaching profession including representatives from Colleges of Education, Further Education Colleges and primary and secondary schools. Fifteen members are appointed from such bodies as the Association of Directors of Education, the universities, and the churches, and four are members nominated by the Secretary of State.
2. The Council has the general functions of keeping under review and advising the Secretary of State on standards of education, training and fitness to teach of those entering the profession, of maintaining a register of qualified teachers and of making recommendations on the supply of teachers (except on matters of salary or conditions of service). If the Secretary of State is unwilling to accept the Council's advice or recommendations he is obliged under the 1965 Act to publish a statement setting out the Council's views and his reasons for not accepting them. The Act imposes a duty on the Council to keep itself informed of the nature of courses offered in the Colleges of Education. For this purpose it may appoint persons to visit colleges on its behalf and it has done so in the form of a Committee of Visitation drawn from its own membership. These visitors report to the Council on the general content of, and arrangements for, the courses in the colleges but may not interfere with the teaching or with the conduct of any examination. The Council is empowered however to make recommendations to governing bodies on changes that might be made in general content or arrangements of the courses.
3. The Council has both an Investigating and a Disciplinary Committee. Where a registered teacher has been convicted of a crime, the nature of which implies that he has been guilty of infamous conduct in a professional respect or where a question arises whether the conduct of a registered teacher constitutes infamous conduct, the case is considered by the Investigating Committee in the first instance. If it decides that the teacher was guilty of such conduct the case is referred to and considered by the Disciplinary Committee which has the power to remove a teacher's name from the register if in its opinion he has been guilty of professional misconduct. There is a right of appeal to the Court of Session.
4. The pattern of training courses is governed by the Teachers (Education, Training and Registration) (Scotland) Regulations 1967 which provide for three distinct qualifications in the fields of primary, secondary and further education. A student who successfully completes a course leading to one of these qualifications is recommended by the governing body of the College of Education to the General Teaching Council for registration as a teacher. On application to the Council he is entitled to provisional registration; full registration is accorded on the basis of two satisfactory reports from his headteacher. The normal period of probation, which is supervised

strictly by the Council, is two years. The range of educational qualifications acceptable for entry to training and the duration of the course at the Colleges of Education are both governed by regulations drawn up by the Secretary of State on the advice of the General Teaching Council; the content of each course provided in the college is determined by the Principal of the college on the advice of the Board of Studies.

The Colleges of Education

5. The ten Scottish Colleges of Education are constituted and assigned functions under the Teachers (Colleges of Education) (Scotland) Regulations 1967. Their governing bodies are independent both of the education authorities and of the universities although their membership includes representatives of both. The Secretary of State's aim has been to secure as wide as possible a representation of interests concerned with the education and training of teachers and to this end has ensured that the governing bodies include members of the staff of the college, teachers in schools who are elected by their colleagues, representatives of the churches, and, to cover the general public interest, nominees of the Secretary of State. Each college has a board of studies comprising, in addition to the Principal, all holders of appointments of principal lecturer and above as well as a number of junior lecturing staff. The inclusion of students on both Boards of Governors and Boards of Studies is at present being considered. Co-operation among colleges is secured through the Joint Committee of Colleges consisting of the Chairman and Vice-Chairman (the Principal ex officio) of the governing body of each college. The regulations define the functions of the Joint Committee as being "to facilitate the exercise by the colleges of their function and the process of consultation on matters of common interest". It meets about twice a year but has a Sub-Committee, the Committee of Principals, which usually meets once a month. The Secretary of State keeps in touch with the Joint Committee and the Committee of Principals through the appointment of two assessors, an administrative officer of the Department and one of HM Chief Inspectors of Schools.

Training Courses

6. As has been said above, distinctive courses of training are provided for students who intend to work in one of the three main sectors - primary, secondary or further education. The nature and length of these courses are influenced by the educational attainments of the students at their point of entry to training. For students who have come direct from school the courses involve both professional training and a continuation of the students' own general education. In the training of graduates and specialist diploma holders, prominence is given to professional studies; for those training for a qualification to teach in secondary or further education emphasis is placed on the methodology of the teaching of their specialist subjects. Apart from the course leading concurrently to a degree and to a teaching qualification for secondary work established in September 1967 by the University of Stirling, all pre-service teacher training in Scotland is undertaken by the ten colleges of education.

Primary Teaching

7. There are three main courses of training leading to a teaching qualification for primary education. The first and most popular is the three year course taken mainly by young women and a growing number of young men direct from school; the minimum of age of entry is 17 and the minimum

education requirements are two Higher grade passes, including English, and four Ordinary grade passes, including mathematics or arithmetic, in the Scottish Certificate of Education. The entry qualification for this course is to be raised to three Higher grade passes from session 1974-75. (In fact, this standard is already being applied). The second method of entry is through the one year course for graduates. Until recently this was the standard method of entry for men. The third method, a four year course for the degree of Bachelor of Education was introduced in 1965. It is now available in six of the nine colleges of education offering training for primary education. This course is becoming increasingly popular as a method of entry to teaching, especially for men.

Secondary Teaching

8. There are four main courses of training leading to a teaching qualification in secondary education. Firstly, there are one year courses for graduates leading to a qualification to teach an academic subject such as English or mathematics. Broadly speaking there are two standards of entry leading to separate courses; one is at the Honours degree level of the subject which the student intends to teach and the other is at the level of two graduating courses in that subject, requiring the student to have studied the subject at a university for at least two years. Secondly, there are one year courses, available to holders of a Diploma of a Central Institution, leading to a qualification to teach a practical or aesthetic subject, for example, home economics or art. The entry requirements as far as the general education of the student is concerned are broadly similar to those for entry to the three year primary course. Thirdly, there are four year courses in technical subjects and three year courses in physical education, in speech and drama, and in music. These courses are taken mainly by young men and women direct from school, except in the case of technical subjects where the intake includes a substantial number of technicians and craftsmen from industry who can secure reductions in length of training up to a maximum of two years depending on the nature of their technical or craft qualifications. Finally, the four year courses for the degree of Bachelor of Education now offer another method of entry to teaching academic subjects in addition to the traditional pattern of graduation in an arts or science faculty of a university followed by one year of teacher training. These courses which offer academic and professional training concurrently are established by the Colleges of Education in association either with their neighbouring university or, in the case of one college, with the Council for National Academic Awards. There is an arrangement which enables graduates taking a one year post-graduate course leading either to the primary or to the secondary teaching qualification to begin their studies for the Degree of Master of Education by taking a course leading to the Diploma in Education at the neighbouring university. Attendance at this course exempts the graduate from attending the classes in psychology and education conducted by the College of Education as part of the post-graduate course. Methods and teaching practice are still the responsibility of the colleges of education. A report, "The Training of Graduates for Secondary Education", which was prepared by a Working Party set up by the General Teaching Council for Scotland was published on 28 November 1972. Consultation with the profession on the recommendations of the Report is currently taking place. A summary of the Report is appended to this paper.

Further Education

9. The course of training for further education teachers is a sandwich one consisting of two months' full-time study at Jordanhill College of

Education followed by a year of supervised teaching and finally another two months' full time study at the same college. This course is taken by teachers in service seconded by their authority to attend the periods of study at the college. It is proposed to lengthen both the initial and final phases of this course to one term's full-time study.

In-Service Training

10. The Secretary of State established in 1967 a National Committee for the In-Service Training of Teachers. The Committee is composed of 22 members representing the education authorities, Colleges of Education, teachers' associations, universities, Central Institutions, the General Teaching Council and the Secretary of State. Among its responsibilities are the identification of in-service training needs and a definition of priorities within these needs, and the devising of administrative machinery at local and regional level to ensure that courses are adequate for a comprehensive and economic programme of in-service training. Four regional committees centred at Edinburgh, Glasgow, Aberdeen and Dundee are responsible for co-ordination at local and regional level.

11. The provision of in-service training courses leading to a special qualification is governed by the Teachers (Colleges of Education) (Scotland) Regulations 1967. Under these Regulations the colleges are empowered to offer registered teachers courses leading to specialist qualifications as a teacher in a nursery school, as an infant teacher, as a remedial teacher in a primary or a secondary school, or as a teacher of pupils requiring special education. These courses are provided under a variety of arrangements extending from a one year full-time course for the specialist qualification in both primary and infant work to vacation courses extending to not more than six weeks spread over two summer vacations, with supervised teaching in the intervening year. A Working Party is at present designing a special qualification course for teachers engaged in teaching children in the 8-12 year old range.

12. In the provision of in-service training which does not lead to additional qualifications, the colleges offer an extensive range of courses, the education authorities also play an important part and there are contributions by the teachers' associations, the universities and the Central Institutions (colleges of advanced technology). Staff for these courses are drawn from the Colleges of Education, the universities, schools, education advisory staffs, industry and HM Inspectorate.

13. Courses are offered to keep teachers up-to-date with developments in the curricular field to both primary and secondary schools and to provide training for those in promoted posts, as well as to give serving teachers an opportunity of improving their initial qualifications. In the past, the majority of courses have been held out of schools hours - during evenings, at weekends, and in vacation time. As the supply of teachers improves it is intended to increase the provision of full-time courses which will entail the release of teachers from their day-to-day classroom tasks. In 1972-73 more than 40 courses of about one month's duration were mounted, each for 20 primary teachers. It is Government policy to increase this form of provision during the next decade for teachers in primary schools and to extend it to those in secondary schools.

The Training of Graduates for Secondary Education in Scotland

14. In January 1971 the General Teaching Council set up a Working Party with the following remit -

'To review, in the light of the requirements of the education service and the practice in other countries, the present arrangements for post-graduate and post-diploma teaching leading to the award of a Teaching Qualification (Secondary Education) and to make recommendations.'

Later that year this remit was extended to include all of the four main courses of training leading to the acquisition of a Teaching Qualification (Secondary Education).

Summary of the Report

15. The report may be seen as having four main sections, viz, preliminary conclusions based on clearly discernible needs of teachers and pupils; the aims and objectives of preliminary training; the degree to which existing courses meet these aims and objectives; and the recommendations. Each of these is discussed in turn.

16. Preliminary Conclusions

The Working Party were agreed that any recommendations which might be made should give priority to the interests of pupils. They would require to take account of the emergence of the comprehensive school as the common pattern of secondary education, the consequent need to design the curriculum for a broad spectrum of intelligence and the changing concept of secondary education as a preparation for responsible adult life. The gradual acceptance of the belief that pupils should have a part to play in the planning and organisation of their school experience and the concept of the school as a focal point in the community it served implied the closest integration of the local authority, teachers, parents and pupils in establishing and maintaining a centre of civilised living concerned with life outside and within its walls. These ideas implied for the teacher an increasingly 'open' relationship between himself and his pupils and an awareness that social education was as important an element in his work as subject specialism. Teachers would require to be trained for this new role and the training process would require to be continuous covering a teacher's life from his entry to college of education until his retirement. The preliminary and general conclusions of the Working Party were that teacher training for graduates wishing to teach in secondary schools must continue to be obligatory and must attempt to meet the changing needs of the schools; the responsibility for training must be shared by the colleges of education and the teaching profession and existing collaboration between colleges, schools and the education authorities must be developed; the role of the school in the training process must be seen to be organised on a nationally consistent pattern; and the probationary period i.e. the period between provisional and full registration by the General Teaching Council must become a more effective period of the training process.

17. The Aims and Objectives of Preliminary Training

The Working Party identified four major aims of the professional training course. Firstly the course should be so designed as to enable the highly educated graduate with varied interests and abilities to become an efficient

and professionally motivated teacher. By the end of the course of training the teacher should have learned to adapt his specialism to enable him to present it as a school subject, to assess the value of that subject and to appreciate its place in the pattern of secondary education. The power of ready communication and a willingness to understand the learning processes of less mature and non-intellectual persons were qualities to be developed. Secondly, it should provide him with adequate equipment with which to teach. Ideally, he should, after training, have a wide and varied selection of teaching methods, the ability to deploy them in many situations and the skill to cope with unexpected problems. Thirdly, the trained teacher should have a clear idea of his place in the national system of education through learning about the form of modern Scottish society, the aims of education, existing practices in Scottish schools and classrooms and the nature and strains of the teaching process. Fourthly, his training should have encouraged him to take a continuing interest in current developments and research at all stages of the educational process so that he was convinced of the need to maintain and increase his competence as a teacher.

18. The Degree to which Existing Courses meet these Aims and Objectives

Although the colleges of education had done much, often successfully, to meet the changing demands of the schools the traditional conception of pre-service training as a basis for 40 years of service had led to serious deficiencies. It had led, for example, to the overcrowding of courses and the introduction of additional subjects in the course content. Colleges had been forced to provide solutions to problems which were not recognised as such by students because they had not encountered them in teaching practice. Schools also had had to face the conflicting demands of the pressures on senior staff and the need for steady and consistent guidance of students on teaching practice. Difficulties of this kind in colleges and schools could only be overcome by a rethinking of the individual contribution which each could make and of the degree to which the process could become a shared responsibility. As far as the colleges were concerned increased co-ordination of professional studies in Education and Psychology with those in other departments, and the proportion of lecturing to work in seminars and discussion groups required urgent consideration. As far as the schools were concerned fresh thought had to be given to the whole nature of teaching practice with the teachers playing a more significant role. If the probationary period were to become a shared responsibility of college and school this would require a formal system of co-operation. Ways would have to be found of helping college and school staffs, through secondment in both directions, to keep in touch with the rapid changes in secondary education. Probation must become a part of training involving the highest degree of co-operation among, college, education authority and school. Pre-service training and the period of probationary service would thus be integrated in a coherent whole lasting two years.

The Recommendations

19. The Working Party's thinking would ideally have been matched by a course of the 'sandwich' type in which the first part was conducted by a college of education, the second part was spent as a probationer teacher still under training but in employment and the third part was a continuation of the course in the same college of education. There were problems however which made such a 'closed-circuit' 'sandwich' course impracticable. For example, teachers in employment throughout Scotland, and perhaps north of Scotland, in the second part of the course, could not each be expected

to return for the third part to the college in which he had received his pre-service training. Even where such a return was possible the load on the colleges might be beyond their resources. The Working Party therefore had to find a practical alternative which ensured that the third part of training might be successfully accomplished.

20. The Working Party therefore proposed the following general pattern of training for teachers seeking the Teaching Qualification (Secondary Education). There should be a period of initial training (Phase I), a period of probationary service as a trainee teacher (Phase II) and a further period of training (Phase III). The three Phases would last for two full sessions and a student would be required to complete successfully each of the Phases to gain the Teaching Qualification. While the probationary period under this arrangement would be reduced from two to one years it would become an integral part of organised training.

21. Phase I

The responsibility for training in this Phase of pre-service training would rest with the colleges of education. On successful completion of the Phase a student would be recommended by the governing body of the college for provisional registration with the General Teaching Council. Since this provisional registration would mean that the student was considered fit to enter the profession as a trainee and to begin his period of supervised teaching, this first Phase would require to be both vigorous and vigorously tested. Phase I would last from the beginning of September until the following April and would consist of an introductory period, covering most of September, of 'observation' in the schools and two terms of 10 weeks each, with almost half of each term devoted to teaching practice. A September start to this Phase would not of course allow an intending student who had failed to complete his degree or diploma in June to re-sit examinations in September and begin teacher training once the results were known. While this proposal might deprive the profession of some potential recruits, the Working Party felt that it might lead indirectly to an improvement in the quality of the recruits through encouraging future undergraduates to treat their basic studies with becoming seriousness. As far as the content of Phase I was concerned it would deal with an introduction into the nature of teaching and the types of problem the student was likely to meet in Phase II; certain subject areas e.g. guidance, counselling, curricular development, outdoor education, remedial education could well be postponed; others such as the history of education might be covered by a course of prescribed reading. The general aim of Phase I would be to ground students sufficiently in both professional and subject studies and to enlighten and strengthen their growing competence in practical teaching. In practical terms colleges would require to re-distribute their theoretical studies and, since it could not be guaranteed that students would return in Phase III to the colleges in which they had completed Phase I, to co-ordinate their training policies. Teaching practice during each of the two terms would be for an uninterrupted period of at least four weeks with each student being made to feel that he was a true apprentice to the experienced teacher and being given a reasonable chance to take this practice in different types of schools. School staff and college tutors would co-operate in assisting students and in assessing teaching practice. While ultimate responsibility for all assessment in this Phase, in both practical and theoretical fields, would lie with the college, the final decision on whether a student should be allowed to enter Phase II should be, and be seen to be, the joint work of representatives of college and school.

22. Phase II

The aim of Phase II would be to provide an improved form of probationary service and to integrate this into the training process. The Phase would last for three terms i.e. the summer term of the first year of training and the winter and spring terms of the second year. Entry to Phase II would depend on a graduate securing a suitable post as a trainee teacher in a secondary school. In this teaching post the trainee teacher, as a provisionally registered teacher, would be entitled to the same status and emolument as the present provisionally registered teacher who has completed his professional training and is serving a two year period of probationary service. To ensure that the trainee teacher would have time for reflection and discussion with experienced teachers, the headteacher (or his representative), college tutor, to attend seminars, to meet tutors at colleges of education etc. he should not be asked to undertake a teaching load of more than 60-70 per cent of the teaching week. In addition the trainee would be expected to engage in discussion of such aspects as the pattern of curricular provision of the school; discipline and guidance; extra-curricular activities. He would be expected to receive systematic instruction in school organisation and administration and would be given the opportunity to study methods of assessment, school records and school reports. Where possible full use should be made of teachers' centres so that trainees from different schools in the same area could be brought together to discuss mutual problems. Thus a wide range of individuals, employers, local authority advisers, headteachers, teachers and college tutors would have a direct interest in the welfare of the trainee teacher.

23. As far as schools were concerned the supervision of the progress of the trainee teacher would require careful organisation and co-ordination. The Working Party proposed that each school should be required to nominate a senior member of staff - a regent - who would be generally responsible for the overall supervision of Phase I students and Phase II trainees. This would be a new post in secondary schools the duties of which would include the reception of students in schools; the checking and supervision of their timetables; consultation with the principal teacher of the appropriate subject department on the trainee's departmental work, including subject matter, methods and assessment; the organisation of regular contact between subject teachers and college tutors; the planning of discussion groups and seminars in which experienced teachers, trainees and students would participate; and the provision of means whereby teachers and college tutors together could discuss the progress of their younger colleagues. The appointment would carry with it the right of access to the college authorities and the definite locus in the training system which are required if schools, with the help of the colleges, are to be in charge of Phase II training. In-service training would of course be required for teachers who were appointed as 'regents'.

24. Theoretical studies begun in Phase I might be continued in Phase II, and subsequently resumed in Phase III, through an assignment of work undertaken by the trainee in Phase II. The assignment would be closely related to the work of the trainee in Phase II, would be completed in sufficient time for it to be assessed by the end of May of the second year and would be one of three conditions of final registration i.e. the headteacher's report on Phase II, the assignment and a report on Phase III.

Phase III

25. This compulsory Phase which would cover the last term of the second session in training is designed to enable the trainee to obtain fresh

insights and re-organise his personal theories about education which were synthesised for him in Phase I and were tested in practice in Phase II; and to add studies in depth of elements not covered in Phase I. Entry to Phase III would depend on a satisfactory report by the headteacher on his performance in Phase II and the trainee would be required to make arrangements with his employing authority for release from school duties for a period of eight school weeks or approximately forty days. Mere attendance at the course would not be sufficient and a satisfactory level of participation by the trainee would be required. Responsibility for the Phase would rest with the college of education advised by a local committee representative of the college, the teaching profession and the education authority staff; this committee would become in effect a second board of studies of the college. This committee would also be responsible for assessing the progress made by the students at the end of the Phase and for making appropriate recommendations to the college of education for transmission to the General Teaching Council. Since trainees in Phase II would be dispersed throughout Scotland many would be unable to undertake Phase III courses in the Phase I college and arrangements would be required to enable courses to be run in colleges or centres conveniently placed to schools where the trainees are teaching. Since colleges would thus have the dual function of initial training and local or regional provision the work of this Phase would require to be shared by all of the colleges of education and certain colleges would have to be closely related to 'outlier' centres within their allocated areas. In such centres the accommodation would be provided by the local authority and the equipment by arrangement between the authority and the college.

26. Course pattern would vary in Phase III, there might be two courses each of four weeks; or courses held on selected days within the total period leaving the rest of the week for preparation and prescribed written work. Course content would also vary e.g. completion of the Phase II assignment; ad hoc minor assignments; discussion groups and seminars etc; in which the main topics might be problems arising from practical teaching, the development of the curriculum to suit the changing needs of the pupils and problems of school and society.

27. Since the trainee would be seconded from a particular school for Phase III he would, as the term 'secondment' implies, normally return to that school where he had served during Phase II. Final registration would of course depend on the successful completion of all three Phases.

28. Mention was made earlier of other courses which lead to the award of the Teaching Qualification (Secondary Education) viz. the 2, 3 or 4 year courses in such subjects as technical education, physical education, speech and drama and music and the courses at colleges of education leading to the award of the B.Ed. The Working Party considered the impact of its proposals on both types of courses. As far as the former were concerned the final session of a concurrent course could commence at the beginning of September and conclude in the following April and be regarded as Phase I; Phases II and III would then follow according to the pattern recommended for post-graduate students. As far as the latter were concerned it was felt that the degree of B.Ed. would correspond to a university degree plus Phase I; Phase II would extend from August in the year of graduation for three terms and full registration would be granted on the basis of the degree, the training in Phase II and the headteacher's report and completion of an assignment as described above; Phase III would not be compulsory but it would be expected B.Ed. trainees would be enabled to take such share as was possible in the courses organised in that Phase.

29. Any adjustments to the University of Stirling's course which enables a student after seven semesters to gain the award of a BA and a teaching qualification and after nine semesters a BA (Hons) and a teaching qualification would be a matter for the University. The teacher training element of these semesters could be regarded as equivalent to Phase I. Graduates taking up posts in January after completion of the degree course should then undertake a Phase II which was one term longer than that for other graduates. This would cover the spring and summer terms of the year in which they graduate and the winter and spring terms of the next year. At the end of this extended Phase they would enter Phase III in the normal way.

30. Finally, having reaffirmed the necessity for all three Phases in the proposed pattern of initial training, the Working Party regarded it as essential to move, as soon as resources including staffing make it possible, to a situation in which all teachers would be required to take periodic in-service training. The pattern of training proposed was indeed designed to point the way to further avenues of training for teachers and so increase their effectiveness.

TEACHER EDUCATION IN CANADA

(RECENT INNOVATIONS IN TEACHER TRAINING PROGRAMMES)

As Canada is a federation of ten provinces, each with its own unique system of education, no attempt has been made to consolidate the information submitted by the provinces. The material is either summarized or given in full under appropriate headings.

BRITISH COLUMBIA

Teacher education institutions in this province continue to keep abreast of developments in the preparation of teachers, but it is doubtful whether the innovations are particularly unique. Changes include:

- a) greater flexibility in patterns of teacher preparation study programs
- b) extended practica tending towards an internship incorporated in the full program. Inclusion of planned periods of experimental studies in classroom techniques, and extensive use of students in carefully designed "teacher aide" situations
- c) development of pre-program observation periods, i.e. use of an observation period to assist the student in deciding what his special area of studies is to be
- d) "micro-teaching", and the use of videotape in analysis of practice teaching
- e) attention to developing school curriculum areas, such as Family Life Science
- f) development of interdisciplinary courses on such topics as the open area school, outdoor education, techniques in the use of the school resource centre to include procedures such as development and use of materials for individualized instruction through videotaped materials, etc.
- g) development, at the University of British Columbia, of a major in Canadian Studies, including social, economic, political and anthropological courses as well as those in history and general geography
- h) attention to current educational concerns through courses in such things as values in education, behaviour modification, and so on.

ALBERTA

At the present time, the province of Alberta has indicated that each of its three universities is involved in the development of innovative teacher education programs.

University of Alberta

The Faculty of Education at the University of Alberta has recently initiated a major innovative program in the field of teacher training, known as Plan B. Plan B is an integrated third year program, developed and conducted by a team of instructors from the Departments of Educational Administration, Educational Psychology, Educational Foundations and Elementary Education, which is being offered to a small group of students who will be in the third year of the Bachelor of Education in 1973-74. One of the essential features of this special program is the integration of courses from each of the departments mentioned above and the centering of these courses around extensive in-school experiences.

The coursework, integrated seminars and workshops, which constitute 66% of the student's timetable, are based on the principle that the prospective elementary teacher should:

- a) know at least two of the more common conceptions of teaching, and be familiar with a variety of approaches to analyzing teaching
- b) be able to design instruction and arrange the variables for teaching and learning - formulate objectives, select methods, organize groups, and choose instructional materials
- c) be familiar with and able to use a wide variety of instructional techniques and skills
- d) know how to diagnose pupil learning needs and evaluate pupil progress
- e) know how to perform teaching functions in ways that create and maintain the desired emotional climate
- f) have a positive and professional attitude towards teaching elementary school children.

The remaining 33% of the student's time is taken up with field or in-school experiences. These field experiences are designed to introduce the student to the school environment on a gradual basis and to avail him of the opportunity to put into practice the theories and procedures discussed in class. In order to achieve optimum realization of the preceding objectives, a hierarchy of teaching experiences has been planned. Initially, students concentrate their attention on elementary school children individually and in small groups (3-8). In the following weeks, the student moves from working with small groups to working with larger groups (10-15), then with the total class, and finally to a full-fledged decision-making, instructing and strategy-designing function.

University of Calgary

There is known to be in the province of Alberta a pool of able Indian people who, it is believed, could benefit from university education and who could, as trained teachers, fill a great social need. It is for these potential students that the Faculty of Education at the University of Calgary has developed a proposal for a special Indian Student's University Program, which is designed to produce employable professionals. Once

approved, the ISUP will eventually become a three-year teacher training program, with the following special characteristics:

- a) The program is one of intensive support for the student through counselling and tutoring.
- b) It is designed to help the students in the regular teacher education program leading to Alberta certification.
- c) The use of program options can lead to the incorporation of special courses, e.g. in native languages.
- d) The field experiences of the program will include extended periods spent in Indian schools (e.g. in student teaching in the third year).
- e) The program will be distinguished by Indian leadership in counselling situations.
- f) Although a common program is set out for all students, each student must be treated as an individual and adjustments made in his program as needed. So, too, there will be adjustments for small groups of students. This will be facilitated by weekly planning and discussion meetings for all students in addition to the regular tutorial sessions.
- g) The program is designed in relationship to the teacher aide program. As teacher aides enter the university to obtain teacher certification, more teacher aides can be trained. A cycle of upward mobility is anticipated.
- h) Finally, this program is not to be thought of as rigidly predetermined but as one which will evolve in response to the expressed needs of Indian students and to insights that are developed through research and experience.

University of Lethbridge

The University of Lethbridge has recently added a field experience sequence to its teacher education program which includes courses designed to provide the prospective teacher with school experiences and opportunities at every level. An internship option is also available which allows students to assume full responsibility in the classroom under authentic teaching conditions. Internship may be done on a half-day basis throughout the semester or during May and June.

SASKATCHEWAN

Innovations have been made in the teacher training programs at both campuses of the University of Saskatchewan.

Regina Campus

The Faculty of Education has been engaged in a number of innovative programs in various subject areas this year. The foremost of these is the development of the Experience Bank Program. This program in elementary education involves two sections of students, approximately

forty in number, who are engaged in experiences designed to integrate theories of education and practice in teaching methods. In these experiences students and faculty have attempted to integrate teaching sessions in the schools with curriculum and instruction classes on campus. This program attempts to develop a series of teaching competencies and these competencies are put into practice in the school setting. One of the most valuable developments in the experimental program has been the emergence of the importance of a faculty advisor who helps a group of students to develop teaching competencies and to integrate field experiences with class experiences on campus.

The Faculty of Education has also initiated a Bachelor of Education elementary program which includes internship. The students involved in this program have undertaken a number of field experiences already in connection with their curriculum and instruction classes to help build teaching competencies that will be developed further during their internship. It is hoped that in the future that this type of program will become more popular with elementary students.

At the secondary level many subject areas have initiated pre-internship experiences for their students. These experiences involve observation and participation in schools at all levels. The experiences are related to curriculum and instruction courses offered on campus. It is hoped that this type of experience will prove beneficial in preparing students for an effective internship experience.

In the areas of outdoor education, drug education and special education, efforts are being made to expand innovations which have already been undertaken. The outdoor education classes, which involve experiences with the winter and summer environment, are rapidly becoming more interdisciplinary in scope. Instructors from the areas of science education, physical and health education and social studies education have become involved in structuring these courses. The drug education program, which was initiated two years ago on this campus, is in the process of consolidation and even expansion. Proposals are underway for an additional course in this area which will help train teachers in methods of teaching drug education in the schools. The area of special education, which was developed this year on campus, has proved very popular, particularly with experienced teachers. These courses designed to deal with special types of students in the schools have been well attended and indeed there is demand from teachers in the field for more off-campus offerings in this area.

In addition to innovations in courses, some faculty have been deeply involved in in-service activities in the public and separate schools. For example, an instructor from the music education area has been introducing innovations in music education at the elementary level. Similarly in social studies education, faculty have been involved in introducing the new "Man: A Course of Study" at the Division II level in the Regina Separate School System. Teachers have been most appreciative of these efforts to introduce new courses in the elementary schools.

Saskatoon Campus

The newest and probably the most dramatically different of the innovative programs established at the University of Saskatchewan, Saskatoon, is the Indian Teacher Education Program. It consists of five semesters of study and on-the-job teacher training, or the equivalent of

two and one-half academic years. Students who successfully complete the program will be eligible for employment in any of the schools in the province. It is hoped, however, that most of them will choose to work with their own people, since one of the main objectives of the program is to provide native children with more teachers of their own ancestry.

Tuition fees and training allowances of the students who are admitted, as well as additional costs arising from the special nature of the program, are covered by the federal and provincial governments.

The new program differs in both focus and format from the regular program, but includes all of its academic and professional requirements. It is in fact more demanding in some respects, such as the addition of a strong cultural component, and the requirement of fluency in speaking a native language. For these reasons an extra semester of study has been prescribed.

Each of the program's five semesters consists of five weeks of study on campus, three weeks of on-the-job training in selected schools, two weeks of regional seminars, and another three weeks in the schools. Tutorial counsellors will work with the students both on campus and in the field.

Other innovations in effect at the Saskatoon Campus College of Education are:

- a) a program of internship which requires four months of continuous experience in a selected school. The idea of apprenticeship is certainly not a new one, but the unique feature of this program is that it is a product of continuous consultation and cooperation with practicing teachers, college personnel, department of education officials, representatives of the Saskatchewan Teachers' Federation and school superintendents
- b) contract teaching in educational psychology classes
- c) a highly individualized laboratory method of teaching mathematics and science. This concept, as with contract teaching, is not new, but does represent a step towards achieving closer integration of theory and practice
- d) use of videotape to enable students to analyze their own performance in a classroom or mini-teaching situation
- e) the restructuring of the whole approach to the teaching of industrial arts and technology. The basic concept is that the individual courses are viewed as being parts of a process. Therefore it is a matter of examining the structure of the subject area, so as to be able to relate its individual elements (courses) to each other and to the whole.

MANITOBA

Innovations in teacher education in Manitoba are of both a general and a specific nature.

General

Greater flexibility in teacher education has been obtained by the offering of a greater number of options together with greater freedom of course choice by students. Because students are sent to schools for practice teaching at an earlier time than ever before, the students are better able to identify their needs and aspirations and are therefore able to use their freedom of choice in an intelligent manner. Further, there is opportunity for independent study on topics selected by the students and approved by faculty advisers.

Instead of concentrating practice teaching in the traditional blocks of time, the tendency now is to have study of theory proceed concurrently with practice teaching. This means earlier contact with the schools, an earlier identification of needs, and a greater union of theory and practice. In addition, it should be pointed out that students at the University of Manitoba will be given three semester hours of credit in their teacher training program for youth work done during the summer vacation months in the inner city.

The use of television to improve teaching skills and to eradicate teaching deficiencies is rapidly becoming a compulsory part of all teacher education.

There is a decided increase in the emphasis by the teacher training institutions to assist teachers in the field. In-service is being implemented on a continuing basis rather than on short, intensive one or two-day training sessions.

An integrated four-year Bachelor of Education degree program has been established at the University of Manitoba. In addition to incorporating the features noted above, it also ensures that teachers will have a thorough background of academic studies in at least two teaching areas.

Specific Projects

Seven schools are cooperating with the Faculty of Education, University of Manitoba, in a differentiated staffing project. Student teachers spend half of the certification year in the schools assisting with the planning, organizing and implementing of various forms of differentiated staffing.

Science study carrels are equipped with a variety of audio-visual materials including video and magnetic tapes. Students independently follow a planned program to improve their knowledge of scientific processes and teaching skills. Students are encouraged to develop their own resource materials.

Instruction for trainee mathematics teachers is conducted in groups in a workshop situation. Emphasis is on content and processes. Activities and materials are developed which will have relevance in particular to teaching mathematics in the elementary school.

Primary learning centres are designed to develop a total approach to learning with emphasis on cognitive, affective and tactile learning.

Students are encouraged to set up centres where materials of instruction are developed in particular subject areas and processes of learning are examined.

The following teacher training programs for the native peoples and the disadvantaged have also been initiated:

- a) At Brandon University, prospective Indian and Metis teacher trainees, after being selected by their communities, can enter a minimum three-year teacher training program, known as IMPACTE. Although trainees are given instruction in theory during the summer at the university, most of the instruction and practice teaching is conducted in local communities, under supervision of the Faculty of Education.
- b) Also under the direction of Brandon University is the Project for the Education of Native Teachers (PENT), a project whereby Indian teacher trainees already employed as aides in northern Manitoba schools by the Frontier School Division and the Department of Indian Affairs may become certified as teachers through summer programs over a five-year period.
- c) The Winnipeg Centre Project follows much the same pattern as IMPACTE and is supervised by the same university. However, trainees are selected from a variety of ethnic backgrounds. The program is designed to allow the disadvantaged to find a useful career in teaching.

ONTARIO

After a relatively long period of elementary-secondary consecutive (rather than concurrent) teacher education, Ontario is now moving toward integrated and diversified programs in teacher education institutions. The province is committed to raising almost all academic prerequisites to the liberal arts (three-year after Grade 13) bachelor's degree level. In harmony with this move, it is approaching a predominantly university-based location for its teacher education programs.

Innovations in Ontario are, therefore, related to an equalizing of the importance of all levels of primary-secondary education through requiring comparable academic background of all new candidates for teacher education. Although those who hold lower academic qualifications will not be forced to upgrade, it is confidently expected that most will choose to reach their new colleagues' level.

Only vocational-occupational teacher education and teacher education for French-language schools are exempt from these higher formal academic requirements, the former because of the need for essential non-academic qualifications, the latter through lack of sufficient high level qualified applicants to meet the demand. But even in vocational schools the demand for broader teacher capabilities is requiring retraining of qualified teachers to permit greater flexibility to meet the demand for more, different courses, especially at the secondary level.

An expansion of the concurrent type of teacher education is new in Ontario. An interesting variation is a cooperative-concurrent pilot program to produce specialist mathematics-computer science teachers shared by a faculty of education and a nearby university (which has no faculty of education).

At present, the time allotted to practice teaching is admittedly too short. Therefore, the cooperative program referred to above involves trimester-length work terms which permit much longer and less hurried exposure of teachers-in-training to the atmosphere, work, problems and needs of schools. In some elementary (primary) teacher education institutions students are taking on extra time in schools (in addition to the limited teaching practice) to act as aides, observers and assistants on a voluntary basis.

Three special optional programs which are offered in teachers' colleges - the Primary Specialist's (for teachers of kindergarten to Grade 2), the Oral French and the Vocal Music - have expanded from experimental single courses to three to five courses in different colleges. The latter two provide selected teacher candidates with special competence in addition to basic teacher qualification, while the first prepares teachers for the very important first three or four years of children's schooling.

It would appear that most innovations are aimed at (a) a greater exposure of teachers-in-training to schools before certification, (b) producing teachers with broader capabilities (in terms of subject expertise and of grade level competence). This in turn could lead to reduction of the primary-secondary dichotomy which has in many cases created an undesirable break and loss of momentum in the educational continuum for the children of the province.

PRINCE EDWARD ISLAND

The preparation of teachers in this province has for some years been in the hands of the University of Prince Edward Island, and in recent years training has consisted of three types of programs:

- a) a two-year diploma program
- b) a four-year Bachelor of Education program
- c) a one-year Bachelor of Education program following a Bachelor of Arts or Bachelor of Science program.

The two-year diploma program is being phased out and the last graduate of this program will be graduating in May, 1973. Beginning in September, 1973, all new teachers licensed in Prince Edward Island must have at least four years of training after completing Grade 12.

As a result of several studies initiated in the past two years on teacher training in the province, a proposal is currently before the Senate of the University of Prince Edward Island which would launch a concurrent five-year Bachelor of Education program at the elementary and secondary levels.

The Faculty of Education, University of Prince Edward Island, has also established new courses in developing learning resource centres, advanced art and environmental studies which are being offered in the present programs.

The Prince Edward Island Department of Education, at the urging of the Prince Edward Island Teachers' Federation, inaugurated block programs in primary and intermediate education in the summer of 1969.

These programs were designed for elementary school teachers and had two main objectives:

- a) to improve the level of training of teachers who had been in the school system for a number of years, and
- b) to acquaint teachers with the ways in which a continuous progress philosophy of education can be implemented.

This four-summer block type of program has proved most popular and successful. A number of teachers equal to one third of this year's total teacher population in the province have availed themselves of the chance to enroll in this program.

In this present school year an agreement has been arrived at between the Teachers' Federation and the Department of Education whereby an In-Service Training Assistance Committee has been established. The functions of this committee are:

- a) to determine in which areas of instruction the demand for teachers exceeds the supply,
- b) to determine in which areas of instruction new programs are being introduced which require further training by teachers, and
- c) to devise a government-sponsored bursary program for the summer following the relevant school year which will give teachers an incentive to study in the areas of instruction described in a) and b) above.

The committee will report on its findings to the Minister of Education.

NEWFOUNDLAND

Recent innovations in teacher training systems in the province of Newfoundland include the following:

- a) The Memorial University Faculty of Education has recently instituted a practice teaching arrangement which places a number of students in British school systems for several weeks of the year. Memorial has a piece of property at Harlow, England, and a staff to maintain it. About thirty education students go to Harlow each year and do their practice teaching in selected British schools. The arrangement is proving very worthwhile and holds great promise for the future.
- b) A further innovation is the move towards internship. Teachers in training are placed in school situations for a full term to serve as interns, and graduate students in education work with educational agencies such as school boards and departments of education for one or two semesters, to obtain practical experience in various aspects of educational administration or supervision.

The Faculty of Education is presently making a very comprehensive and in-depth study of teacher training programs, with a view to introducing significant changes in the near future.

TEACHER EDUCATION IN DOMINICA

For a long time now it has been recognized that the need for more and better qualified teachers is one of the most urgent educational requirements of Dominica. The 1957 Regional Conference on Teacher Training in the British Caribbean regarded teacher training as the most urgent educational problem of the area when it observed: "Above all, most teachers have no training for their work. This is true of the primary and all-age school and also of grant aided secondary schools in which less than half of all the teachers have a university degree, and only a very small proportion of them have any training as teachers." This is particularly true of Dominica where primary as well as secondary schools continue to be staffed by the more able of their past pupils, who, in the case of primary schools, are designated Teacher Auxiliaries, but in secondary schools unqualified Assistant Teachers.

System of Recruitment and Teacher Supply

Primary School Teachers

Persons with three different levels of academic attainments are recruited into the primary system.

(a) Teacher Auxiliaries: These are the teachers who were formerly known as Pupil Teachers and are primary school pupils about 15 years of age who have successfully completed the all-age school course, and having gained a School Leaving Certificate are taken into the teaching service. These teachers undergo a three year in-service training programme which is geared towards improvement of their academic background in the areas of mathematics, English Language and Literature, Health Science, Geography and History. The teachers are required to pass an examination in each subject yearly. Those who fail are allowed to repeat but have their services terminated on two successive failures. Success at the examination is rewarded with an increase in salary. On successful completion of the third year examination the students are designated Unqualified Assistant Teachers.

(b) Secondary School Drop-outs: Many pupils leave the secondary schools without the minimum of four G.C.E. 'O' level subjects which are required for entry into the teaching service, some with no 'O' levels, or even before they reach the fifth form. These students are admitted as Teacher Auxiliaries if they have not spent at least one year in the Fifth Form.

(c) Secondary School leavers admitted after at least one year in the Fifth Form or with 'O' levels are classified as Unqualified Assistant Teachers and are given one bonus increment for each 'O' level, but two each for mathematics and English Language.

All Teacher Auxiliaries are prepared in-service
(a) through supervision and actual tutoring by the heads of the schools to which they are attached; (b) vacation courses. The fortnightly Saturday classes which were temporarily suspended will be revised to assist these teachers in preparation for their examination. In addition, the Extra Mural Department, University of the West Indies, also runs courses in mathematics, English Language and West Indian History.

The Teacher Auxiliary system is a very poor method of recruitment of teachers in the twentieth century. Writing in this context V.C. Griffith

(External Teacher Training 1955) said "Most of us who are keenly interested in education feel some distaste, even shame, when pupil-teaching is mentioned." But as he rightly points out: "Sometimes we deceive ourselves into thinking that we have abolished the essentials of the system by taking candidates from the secondary schools. We then call them Probationer Teachers instead of Pupil Teachers. But really our problem has not altered much."

By and large these teachers have no form of professional training and merely do things in the manner, as far as they can recall, they were done to them. There is also the other danger that the four (4) 'O' levels may not all be relevant to the primary school situation.

Formerly all teachers who had reached the 4 'O' levels standard took an examination conducted by the Education Division known as the Local Teachers' Certificate. In addition to the usual academic subjects there was a test in practical teaching. They prepared for these examinations privately with assistance being given occasionally at vacation courses or Saturday classes. Successful candidates were graded Certificated Assistant Teachers. Because there was no Teachers' College in the State many had to wait for some time before gaining admission to one of the Teachers' Colleges in Antigua or Barbados where our teachers are still being trained.

Secondary School Teachers

The recognized qualification for Grammar School teaching is a degree. For many years any teacher with a degree - usually the Headmaster only - was an expatriate. All Dominicans who qualified for university entrance pursued the professions of Medicine, Law, or Engineering. Schools were, therefore, staffed almost exclusively by the better of their ex-pupils. The Roman Catholic Church, however, managed to secure the services of religious persons with good teaching qualifications to teach in their schools. On the whole the secondary schools suffered much more than the primary schools from the school to classroom type of teacher since they had no system of in-service training for their teachers. It was particularly bad in these schools since the most qualified members of staff taught the youngest pupils as an external examination dominated system required the best teachers to work at the top of the school where efforts were directed towards the examination rather than the personal development of the individual.

The latter part of the 1950's saw a change in teacher education when the Christian Brothers, who operated a secondary school on the island, began training a few of their better able pupils at their own University of Iona; and other Dominican students started courses at the then University College of the West Indies with a view towards entering teaching. Some have returned to teaching and a few of them have taken the Diploma in Education.

The shortage of good quality teachers particularly in the areas of Science and Mathematics is still acute and makes itself manifest in the types of courses which students are later able to pursue at university level. As a result there has been a preponderance of Arts and Social Science graduates over natural science and mathematics. Such a condition must have a stultifying effect on curriculum development as a whole and the schools in particular, a condition which must eventually manifest itself in the quality of the country's manpower resources.

In an effort to set matters right advantage is taken of the generous offer of friendly countries to assist with the teacher shortage through such

agencies as United Kingdom VSO and Technical Assistance Programme; United States of America Peace Corps and Canadian CUSO or CIDA. As a short term policy this system can satisfy an immediate need. However, if one were to derive full benefit from the scheme it should be exploited with foresight. The time when these volunteers are on ground should be used to train their replacements to avoid the programme coming to a halt.

In-service Training by the University of the West Indies Institute of Education

In spite of the various efforts on the part of the Division of Education the percentage of untrained teachers continues to be high and the quality of the teaching remains a matter of serious concern. Very much remains to be done in order to achieve the objective which is: to raise the standard of the teaching in the territory by improving the quality of the teacher.

In an effort to assist government in its attempt to achieve its aims the UWI Institute of Education instituted a three-phased programme of in-service training designed to replace the local system of certification and lead to trained teacher status. The course was introduced in 1966 and designed to meet the training requirements of teachers from Probationer stage onwards. Those below this cadre would continue to be prepared in the customary manner.

This in-service course was divided into:

Part I: A basic approach to teaching: A year's course divided into units of six assignments each for a study period of six weeks.

Part II: A more advanced study of principles and methods would also be divided into six units or assignments as in Part I, each for a study period of six weeks. Students are assigned at the rate of not more than six to a tutor who, in addition to marking and grading the students, written work, met the students regularly for discussions and also visited them in the classroom. Students who had completed Parts I and II would be considered certificated teacher.

In order to qualify for trained teacher status the student would go on to Part III of the course which was to be two summer residential courses.

Those teachers who wished to qualify for headships of schools would be required to do an eight weeks course in administration, pass at least one 'A' level subject and write what was described as a position paper.

The key person in the whole in-service system of training was the visiting supervisor who together with the head of the school was responsible for training the teacher on the job. In order to make a success of the job the supervisor should be a person of broad outlook with training in administration and supervision. He should also be professionally competent. Professional competence involves professional stature and continuous growth. He should possess the kind of personality which would help him to get along with persons who did not necessarily agree with him. He ought to be someone who can help others to find strength in their weakness without humiliating or belittling them to the point of ridicule. In other words the tutor should realize that he is working within a human situation and so should be one who has the greatest respect for the human personality.

All things considered, the system of in-service has much to commend. The tutor is able to see for himself the actual - not the supposed-difficulties

of the student and is therefore in a better position to help him put them right in the classroom. The tutor is in a position to take hold of a situation and demonstrate to the student a suitable way in which it can be handled. Back in the lecture room the tutor will not merely theorise about a difficulty but must be able to say, " I will have a look at the situation on my next visit." The tutor should be able to help relieve the students' anxieties by letting him know there are problems to which there is no single solution and what may apply in one situation may not in another. In such situations the tutor should always be careful to avoid personal condemnation as this might only create antagonism and a feeling of animosity. It is important to remember that acceptance and support are important elements of such a programme of training. It should be borne in mind, when dealing with young teachers fresh from school, that dead level of efficiency or perfection in what they do is not a legitimate goal, neither should it be expected of all students that they should reach the same level of success at the same time or within the same period.

There are problems involved in this system of training in that the students are likely because of geographical conditions to be isolated, thus making it difficult for the tutor to make personal contact with them. On the other hand, in order to see all his students, it might mean too frequent absences from the tutor's own school where he may be responsible for a class or two. Apart from the times set apart for group tutorial periods the student should not be required to visit the tutor in lieu of the tutor's visit, as the value of training him in his own classroom would be sacrificed and the effectiveness of the scheme thereby jeopardised.

This scheme of training has limitations. It is a very inexpensive means of training teachers and one which governments with limited funds will gladly welcome. At best it appears too hazardous to attempt to train teachers completely outside of the training college. There is much more in the training of a teacher than giving him the technical know-how. The teacher's personal development has to be taken seriously into consideration. To train him completely out of college would be to sacrifice a most stimulating and enriching experience which can be gained only through living and working together with others.

In the second place this system of training seriously curtails the chances for curriculum development as the type of teacher trained would be one with very limited skills since the main concerns were Language Arts, mathematics, Social Studies and principles of education. There still remains the need to train teachers for those other activities necessary for the all-round development of the child.

Another weakness is that the content has little or no relevance to the work of the secondary school teacher.

As planned, Parts I and II could be used to replace the local Teacher's Certificate and shorten the period of residence at a Teacher's College if necessary, but not to replace college training completely. Part III of the course, a training in administration, could be used to upgrade teacher competence and should be open to all trained teachers including heads of schools. We never got beyond Part I of the course which was suspended two years ago as it was thought necessary to rewrite and upgrade it in order that teachers at all levels might derive more benefit from it. This has not yet been done.

Under such a system supervision will be based upon the individual

standards and competence of the supervisor. This is not the same as a college supervisor who is guided by the fact that he has a responsibility not only to the student but also to the institution whose standards must be maintained. There was no plan for training the teachers in such subjects as Art, Craft, Music, Home Economics, Woodwork and Physical Education. In planning a teacher training programme one should look far ahead as severe limitation in this area could have a stultifying effect on curriculum development.

Finally in the training of teachers the aim should not only be professional competence. There must be concern for the development of teachers as persons. In the words of Professor Figueroa "To teach teaching demands that we concern ourselves with the development of that kind of person, of that kind of being who invariably conducts himself in the appropriate situations like a teacher." The in-service course just described aims at training young people to teach and not at making them teachers. The process of becoming a teacher can be better accomplished in an institution where contact with persons with the right touch and the traditions of the institution will help the student develop the proper attitudes necessary for the work of a teacher. If this system of in-service training were to be the only means of teacher training, it would appear that we might not get beyond the technique stage. Surely technique in itself is not enough. Jeffrey (1955) puts it this way, "In the last resort, in education as in all art, inspiration without technique is better than technique without inspiration. Better still is to have both."

With a teachers' college now under construction we hope to provide institutional training for our own teachers at home by September, 1973. This means that the practice of training teachers in Antigua and Barbados will be discontinued.

A team from the School of Education, UWI, was invited to examine the proposals for training and to submit models for the consideration of government. The proposals were submitted to the Education Board for its views.

However, since it is now widely accepted that four 'O' levels including English Language should be the minimum entry requirement for the teaching service efforts are made to assist those persons now in the teaching service without the minimum requirements to acquire them. To this end in January 1968 with the help of the Canadians who loaned a teacher for the purpose, groups of twenty teachers who have passed the Teachers Auxiliary stage are brought into what is called the 'Teachers Institute' for a period of two years to study five core subjects of English, Mathematics, History, Geography and Health Science to 'O' level. So far the results have not been outstanding as few students succeed in gaining four passes. However, we are satisfied that it helps young teachers to improve their academic background and plans are to have this incorporated into the programme at teachers' college.

The position of the Teacher Auxiliaries is not a happy one and plans are afoot to resuscitate Saturday morning classes for them in an effort to assist them to prepare for their examinations.

In addition to the above the Division of Education runs regular one-day workshops on Fridays in specific subject areas for groups of schools. On these days the schools in the particular zone close for the day to enable all teachers to attend. In this way each teacher has the privilege of attending at least one such workshop each term. There is also the annual Teachers Vacation Course, in specific subject areas, held for a period of three weeks

during the long vacations. Care is taken to see that each school benefits from this and the heads are asked to select their representative whose business it is to return to the school and pass on any knowledge gained to the other members of the staff. In this way the Division hopes to improve the quality of pupil experiences provided by the schools.

TEACHER EDUCATION IN FIJI

For quite long teacher education in Fiji was generally concerned with the preparation of teachers for primary schools only. The training of teachers for secondary education was almost neglected and given minimal effort. The emphasis in the teachers' college was more on the production of the teacher who had a mastery of the instructional techniques and for the most part was able to teach only what he had been taught. Students were in general trained to instruct pupils in specific ways and to acquire a few teaching principles or maxims which most of them neither fully comprehended nor were able to practise effectively. Little was done to inspire them to broaden and deepen their knowledge and understanding of the various subjects they were to teach and of the communities with which they were going to work, or to develop in them the right attitude towards professional improvement and perfecting their own personalities.

The tutors at the college also found little autonomous freedom to devise courses and to discuss freely among themselves what they would have considered important and essential as an effective and adequate programme for the preparation of future teachers, teachers who would not only know how to learn and acquire knowledge but who would also be capable of using the acquired knowledge fruitfully and be capable of constructive and imaginative thinking.

For a time there existed also the situation in which directives from central education authorities had to be followed strictly and without question. Tutors were sometimes required to follow such definite recipes on what to teach and how to teach it that their students became their prototypes. Even little opportunity was given to the College staff and students to decide among themselves as to how the college should be organised, staffed and maintained. It was quite evident that little serious concern was given to the importance and effectiveness of learning to be responsible by practising responsibilities realistically.

Although no one entirely agreed or was satisfied with such practices, it seemed that people either failed or were just not well-enough informed to question the insufficient attention given to improving and developing teacher education by those in authority and the public alike.

Little was done to provide the kind of teacher education that would meet the changing and varying demands of the new generation of people of different social, political, and economic development and aspirations.

Today, the legacy of this past conditioning and experience has not yet abated, and it is still to some extent quite prevalent in our school system. It is not too far wrong to say that in a good number of primary schools the methods of handling pupils and subject matter are still quite authoritarian, rigid, and paternalistic in nature. Quite a number of teachers are opposed to changes and especially to those aspects that are related to curriculum contents and methods. They display insecurity and lack of confidence to initiate and to deviate from the rigid and somewhat irrelevant syllabus they are familiar with, to a flexible and more realistic one that also provides for individual differences and for the changes that have occurred in our society. Nevertheless, these teachers are not to be considered blameworthy, because they are only the products of the system.

It was not until recently that some positive and realistic move was made to devalue this aspect of teacher education and preparation. The establishment of the University of the South Pacific in Fiji, in 1968, and the publication of the 1969 Education Commission Report were significant manifestations of the concern of the people of Fiji and, of course, her Pacific neighbours, too, to improve the quality of education, to eliminate some of these problems and to expand it in order to cater for new demands. Since then the University of the South Pacific, working closely with the Fiji Education Department and other educational agencies, has been a major influence in stimulating thinking, enhancing discussions, and initiating moves towards a more constructive and realistic appraisal of the form of general education and teacher preparation suitable for the country and the region as a whole.

Through its School of Education, the University of the South Pacific is now concerned largely with the preparation of secondary school teachers. At present it offers two programmes, a three-year post-School Certificate Diploma in Education and a four-year concurrent programme leading to a BA/BSc and Graduate Certificate of Education. These are to meet the teaching needs of our newly established Junior Secondary Schools and Higher Secondary Institutions.

The University also offers facilities for the in-service education of primary school teachers in various subjects like science and mathematics. Primary school teachers are now taking an active part in curriculum development and evaluation programme sponsored and conducted by the United Nations Curriculum Development Programme Unit attached to the University. Through extension study courses offered by the Department of Extension Services of the University, teachers in outlying areas have the opportunity to develop themselves further professionally and educationally, and after four years of successful external study, these external students are then required to do an additional year of internal study at the University in order to complete the Diploma in Education programme.

Though the University teacher education and preparation role is still reckoned in terms of current secondary school work, it is also anticipated that in the not too distant future all teachers' colleges within the University region will become constituent parts of an institute of education where all students, whether they are going to teach in the primary or secondary schools, will on successful completion of their preparation receive the same recognition, becoming the holders of the Teachers' Certificate awarded by the University.

Already the three teachers' colleges in Fiji are moving closer to the University of the South Pacific, and much has already been achieved at the informal level. There is co-operation and consultation among the staffs of the University and the teachers' colleges, discussions on professional and policy matters are quite frequent and have been of great value and benefit to the teachers' colleges and primary education in general.

Although these colleges are controlled by different authorities, it is nevertheless encouraging that all are now realizing the importance of working closely together with the Government and the University in the selection, preparation and employment of better quality teachers for the primary school. Both the Government and the Catholic Mission run colleges which accept students with New Zealand School Certificate and University Entrance qualifications together with those who have passed the Senior Cambridge Examination. Because of shortages of highly qualified school leavers and competition from

other professional and commercial sectors, the colleges are, however, at times forced to accept students with lower academic qualifications but with at least two years' teaching experience in primary schools. The acceptance of these students is a temporary measure intended to alleviate the acute shortage of trained teachers which our country is facing.

The University Assessment Unit assists the two colleges in the selection of potential students by the use of the Unit's Aptitude Test conducted at Form VI level in the secondary school. In addition, a number of local graduates with several years of primary school experience behind them are now taking up appointments as teacher educators at these colleges. It is anticipated that in the not too distant future, these colleges should have the required number of well qualified teacher educators with local primary school experience and a knowledge and understanding of the society in which the schools exist.

A cordial relationship also exists between the Fiji Government and the Catholic Mission in the training and employment of teachers. The Government agrees to employ primary school teachers trained by the Catholic Mission-run college, leaving the posting and transfer of teachers, however, entirely in the control of the Church. In 1970 an arrangement between these two bodies made it possible for the Government to work closely with the Catholic Education authority in the re-training of a number of primary school teachers to teach in the various newly established Junior Secondary Schools. Although the Government subsidizes the cost of re-training, the actual conversion work which lasts for a year is entirely in the hands of the staff of the Catholic Mission Teachers' College. In this case, however, it is the Government that decides the appointment and the posting of teachers at the end of the course.

The Seventh Day Adventist Mission-controlled teachers' college, on the other hand, has a somewhat guarded relationship and acceptance of the Government assistance and recognition. The Government has to some degree recognised teacher graduates from this college, but it is not prepared as yet to employ them directly at the end of their training.

With the increasing number of tutors with proper academic and professional qualifications in the Nasinu Teachers' College there has been an increasing confidence and trust in the tutors to devise their own programmes and courses. These courses are then subjected to regular review and are quite flexible enough to meet the varying needs of the students admitted to the college and also to satisfy some of the urgent requirements of combating shortages and other deficiencies in our primary school system.

In staff-student relationships we have already begun to move away from the formal lecturer-student relationship and to place more emphasis on the use of seminars, tutorials, and informal discussion groups. We are increasingly aware of our responsibility for the individual student, and this has initiated the introduction of organised personal tutorial groups and of a school experience programme that involves every member of the staff of the college in personally guiding and assisting students during school observation and teaching practice. At the same time, we are increasingly emphasizing the importance of inspiring students to be responsible for the improvement of their own academic and professional education. Enrichment courses on various subjects are offered and students are given the opportunity to select what courses to pursue. Students are encouraged to seek and verify information on particular topics related to their course work. Instead of the main

work consisting of several full-scale lectures or courses, students now either form themselves into groups or work individually, preparing papers on topics selected by tutors and the students together which are then presented in tutorials, seminars and in small informal discussions.

The past practice of working through the school syllabus is now replaced by the learning of general principles and specific skills which should enable students to formulate individual approaches and techniques, and to evaluate their effectiveness in the light of the objectives and contents of the syllabus they prepare themselves or with the help of their tutors.

Some courses now begin with a series of assignments and practical exercises designed not only to introduce part of the social context of the course, but also to introduce students to the learning theory by causing them to go unconsciously through the learning processes. In brief, the main task of the college now is to change students' thinking to a new concept of what education really is about.

Now and then students are expected to participate in advising and deciding the type of courses and other extra-curricular activities with which they are to be involved; and through their advice and criticism far-reaching reform has been effected in the teacher education programme now being offered by the college. We are also quietly anticipating the day when it may not be too much for the student to have the responsibility of his own attendance at lectures. The freedom to choose whether to attend or not should put the student on his mettle and that he now feels he is responsible for his own progress and this should lead to improved attitudes to work.

With all due respect to the effort being given to equipping students adequately for their future tasks it is a little disquieting when we begin to wonder how much the students can really acquire and absorb within the limited two-year training period normally offered at our only Government Teachers' College. The inadequacy of the two-year training period becomes more apparent and alarming when we start to think of the other numerous roles a teacher in a developing country will normally play in the community in which he is going to work. Our attempts to provide an education which will provide the teacher in training with much of what he needs to handle his professional tasks with competence and pleasure, and also enable him to fit into the society and to be flexible enough in order to respond to its changing demands in terms of educational needs, have to some extent made the curriculum of the college hopelessly swollen and unmanageable at times.

If we are to accept that primary education is to be complete in itself, but not a series of academic obstacles to be hurdled in an unsteady progression towards secondary education, and to educate children for the society in which they are to live rather than educate them away from it, and also to be considered as an integral part of rural and urban lives, then the teacher becomes a key figure in both areas. This means that his role is going to be a much greater one than just merely inspiring, assisting and guiding the pupil to think and discover for himself. It suggests the important and urgent need for the college to produce superior teachers who are competent and willing to work with both children and adults, and who have a thorough understanding of the nature of the communities in which they are going to work and are fully acquainted with national problems. The teachers' college must be able to change students' attitudes towards their responsibilities towards the nation. It must develop a sense of self-reliance among students who should be ready to offer their services to the community which has paid for their education.

It must also develop among students an understanding of the job opportunities which are likely to be available for the primary school leavers. In short, a future teacher must be fully conversant with the various social, political and economic problems of the country, so that he is able to interpret them correctly to the members of his community and has an adequate grasp of the role which education can play in alleviating if not solving them. Special attention should be paid to providing students with much more practical experience in schools and in villages, and in particular provide plenty of opportunities for decision-making by the students themselves, and in the carrying out of responsibilities.

It seems that our colleges are, to some extent, still falling short of some of these goals and a re-appraisal of the aims of our primary education should be made to enable the teachers' college to define clearly its role and the type and extent of teacher education and preparation that need to be offered to students. This will also assist greatly in the selection of the right calibre of student teacher recruits and of tutors, with appropriate attitudes and qualifications. Although scholastic achievement is quite essential for both student teachers and tutors, it should not be the only criterion in selection. People should be selected who exhibit desirable personal traits and appropriate attitudes towards their work and their fellows.

TEACHER EDUCATION IN GHANA

INTRODUCTION

For most countries of Africa, the greatest challenges of independence have been the pressing needs for social and economic development. All the African developing countries realise and are convinced that the way to rapid development and progress of their societies requires the most useful and relevant education. Experience has shown that the key way of making school systems relevant and development-oriented is through the teacher training programme, which G.S. Counts describes as "the most basic and decisive factor in survival and progress."

Changes in education, no matter how relevant and bold, profound and popular, are barren unless they bring about changes in the classroom and their effectiveness depends largely and almost entirely on the teacher in the classroom and in charge of the administration of the school. The teacher is therefore an important factor in the realization of innovations in the educational system and by implication in the fulfilment of national goals and aspirations.

With a growing appreciation of the role of education in national development and progress, the aims, goals and programmes and structure of teacher education, must of necessity, therefore, change to reflect the new role of education in national development and progress.

Radical changes in teacher education are needed, more especially in most African countries where the whole school systems are greatly in need of urgent innovations, and where Teacher Education programmes are still conservatively concerned with curricula and teaching methods which reflect the needs and educational thinking of colonial days of some African countries. Teacher Education must therefore have a new philosophy which will reflect the need for the reconstruction and restructuring of the entire educational system and the social ideology that is inspiring the economic and social changes. Future teacher education must not only aim at producing effective and competent teachers but also teachers who are change-agents in their society. In a developing country, the role of the teacher as an initiator of change has to be highlighted and stressed. He must not only be the conveyor of intellectual and moral enlightenment but of the good life in its totality.

The importance of teacher education, therefore, in providing relevant and effective education for national development and progress cannot be over-emphasised. In Ghana this importance has been appreciated and realized, and innovations are therefore constantly being made in teacher education programmes to make them responsive to national needs, aspirations and thinking.

INITIAL TRAINING OF TEACHERS: A BRIEF HISTORY

In the initial training of teachers, a series of innovations has taken place over the years in response to political, religious, social and economic changes, objectives, and aspirations. These innovations will be discussed within the general context of the development and growth of Teacher Education in Ghana.

The first training college in Ghana was established in 1848 by the Basel missionaries at Akropong in the Eastern Region to train catechists and teachers for the 45 schools they had established in the country with an enrolment of 1200 children. In 1909, the Government established the Accra Training College as a non-denominational college. It offered a post-elementary two-year course (i.e. entrants had completed 10 years of elementary education) and the aim of the authorities of the type of training the students were to receive was "not merely that they should be able to read and write English Language but that they should develop the best in (the) African custom and character for the enrichment of a definitely African culture".

The method of financing in those early days was that the government paid the full cost of running its training college and the salaries of the teachers who taught in the few government schools; the government also gave grants on a stipulated basis towards the running of the training college belonging to the missions and for subsidising the payment of the salaries of the teachers in mission schools.

The Education Act of 1925 promulgated by Governor Guggisberg sought to improve the quality of education and raise the status of the teaching profession. A register of teachers was introduced, and only qualified teachers were allowed to teach; the opening of new schools was based on the number of trained teachers available. At the same time, the two-year teacher training course was replaced by a three-year course, and in 1928 by a four-year course. The Wesleyan missionaries had opened a training college for teachers, catechists and ministers in 1922 in temporary building at Aburi; in 1924 it moved into new buildings at Kumasi under the name 'Wesley College'. About the same time the Government Training College at Accra was absorbed into the new Achimota College. Two more training colleges, St. Augustine's and St. Joseph's, were opened in 1930, and the number of teachers in training increased to 600 and the colleges to five.

In the first eighty years of Teacher Education in Ghana there was rather a slow development and expansion of college facilities. The quality and competence of the products of the first training colleges were improved upon by increasing the period of training and the quality of teacher educators.

After the second world war, the urgent need for more primary school teachers led to the establishment of new two-year post-elementary teacher training colleges offering courses leading to a Teachers' Certificate 'B', in addition to the existing 4-year Teacher Training Course.

By 1950 there were 19 teacher training colleges with an enrolment of 1,000 students in the country. From 1951, under the Government's Accelerated Development Plan for Education, there was a phenomenal increase in the number of primary and middle schools, followed later by an increase in the number of secondary schools and training colleges. The result of this was that there were enough secondary school graduates for training as teachers, and the post-secondary teacher training course of two years' duration which had started at Achimota in the forties was gradually extended to other colleges. By 1960 out of 4,427 teachers in training, 340 were post secondary students. (It might be mentioned that the idea of secondary school graduates training as teachers had started in a very small way as far back as 1930 when selected graduates after training sometimes went back to secondary schools to teach.)

THE CURRICULUM OF TEACHER TRAINING COLLEGES

Among the subjects in the curriculum of both the 4-year post-primary and 2-year post-secondary colleges are English Language and Literature, Mathematics, History, Geography, General Science, Agricultural Science, Home Science, Religious Knowledge, Art and Crafts, Physical Education, the the Theory and Practice of Education. The Theory of Education includes the Principles of Education, the History and Development of Education, Educational Administration, Child Study and Methodology, that is, specific methods of teaching the various subjects in the school curriculum. The Practice of Education consists of specific periods of practical teaching spread over the last two years of training.

The Post-primary Colleges study the main college subjects up to a level comparable with the General Certificate of Education, and the Post-secondary colleges go beyond this standard to A-level standard in some subjects.

FINANCING OF TRAINING COLLEGES

The Central Government gives grants to cover the running cost of the colleges and pays the salaries of all the tutors and the tuition, room and boarding fees of students. Between 1952 and 1969, in addition to paying the total cost of running the colleges, the government also paid allowances to all students in training colleges. The payment of the allowances was discontinued but the Central Government still pays the tuition, room and boarding fees of students.

CERTIFICATION

Before 1926 the Education Department conducted final examinations for the award of teachers' certificates. From 1927 to 1957 the training colleges were allowed to conduct their own certification examinations with the Education Department awarding the certificates on the results of the examinations. One reason for this change in the conduct of final examination was that during this period the colleges had, on the whole, well-qualified teaching staff.

THE NATIONAL TEACHER TRAINING COUNCIL

As a result of the Accelerated Development Plan which aimed at providing universal literacy, more and more training colleges were established and it became necessary to give guidance and to exercise some supervision in the production of teachers. The National Teacher Training Council was therefore set up by the Government to be responsible to the Minister of Education for co-ordinating all forms of pre-university teacher education. The Council advises the Minister/Commissioner on all matters relating to pre-university teacher education, and organizes examinations which are conducted on its behalf by the West African Examinations Council, both for entry into all training colleges and for final certification. The funds for running the Council are provided by the Ministry of Education.

CURRICULUM DEVELOPMENT

The greatest innovation in recent times has been in the fields of curriculum development and change and assessment for certification. Under the old system the West African Examinations Council conducted common

final external examinations on behalf of the National Teacher Training Council in five subjects, namely Education, English Language, Mathematics, Geography and History. The Colleges conducted internal examinations in the remaining subjects including General Science, Agricultural Science, Art and Crafts, Music, Physical Education, Civics, Ghanaian Languages, Religious Studies. As a result of this there had grown a tendency to over-emphasize the external subjects and the questions set in these subjects were more of the secondary school type and of little relevance to the work of teaching in the primary schools. A shift in emphasis was needed to correct this non-professional tendency, to improve the quality of teaching and to expose teachers to the enquiry type, child-centred approach to the teaching of science, mathematics, social studies and general integrated studies. To do this it was necessary to break away from a rigid examination system and offer more scope for student-initiated and directed group and individual project work.

Under a new programme introduced in 1970 and still under experiment, the number of subjects at the external examination has been reduced to three, Education, English Language and Mathematics, all the rest being examined internally. All subjects have been modified to reflect the teaching in primary schools with emphasis on methodology and current approaches to the development of learning. A continuous assessment of work during the course has been recommended.

The new programme also highlights elective subjects which students are expected to study in depth, both in content and methodology, with emphasis on research and practical work initiated by the student himself on a topic of his own choice and related to his professional work.

A suggested method of assessment with a weighting breakdown of 40% on the external examination, 40% on the internal and 20% on the elective subject is expected to correct the attitude of students to the subjects taken internally. A separate pass in Teaching Practice is required for certification.

PROJECT AND WORKSHOPS

An essential feature in the new programmes of colleges is the various projects and workshops in Social Studies, Mathematics, Science and English conducted by the colleges, sometimes with the assistance from research specialists of the Curriculum Research Development Unit of the Ministry of Education. Block periods of a week at a time are devoted to these and some of the experiments are extended into selected primary schools. It is hoped that the new innovations in the certification of the elementary school teachers will give equal weight to the academic and professional preparation of teachers.

SPECIALIST TRAINING COLLEGE

As a result of the rapid expansion of teacher training colleges both in numbers and in the enrolment of students, a serious strain was created in the staffing of training colleges. The shortage of qualified teachers was also due to the fact that Ghanaian graduate teachers were few in number and most of them preferred to teach in Secondary Schools. A crash programme for 2-year specialist training courses in English, Mathematics, Geography and History, in addition to the Associate Course, were therefore initiated for post-secondary practising teachers.

The expansion of the pre-university curriculum to include Science and Agriculture in both secondary schools and training colleges posed a similar staffing problem for which an immediate solution seemed to be 2-year specialist course in science and agriculture.

Moreover, the revival of interest in African culture brought about by the nationalism of the years immediately before and after independence expressed itself in a greater emphasis on cultural subjects (Art, Music, Religion, Home Science, Physical Education) and the desirability to study them at a higher and more advanced level as a matter of general policy.

Another factor which created the need for specialist teachers was the need to replace the large proportion of expatriate staff in secondary schools with Ghanaians. The Africanization policy in the staffing of schools and colleges was needed to save scarce foreign exchange reserves.

It can be seen, therefore, that the specialist teacher training courses were in themselves an innovation in response to staffing demands in training colleges and secondary schools which could not be immediately satisfied by graduate teachers.

COLLEGES OFFERING SPECIALIST COURSES AND THEIR PROGRAMMES

Below are the details of the programmes given by the Specialist Training Institutions:

(a) ADVANCED TEACHER TRAINING COLLEGE (A.T.T.C.) WINNEBA

The A.T.T.C. offers courses in English, Mathematics, Science (Physics, Chemistry, Biology), Geography and History. The courses were initiated by the Conference of Training College Principals in the late fifties and later expanded by the National Teacher Training Council in order to meet the staffing needs of the growing number of training colleges. Secondary schools, however, showed interest in the specialist teachers since they were found suitably prepared to teach in the lower forms.

From 1964 to 1966, eight colleges offered these course under a special relationship with the University of Cape Coast which was also responsible for final examination and certification of the products of the college.

In September, 1966, the courses were brought together and housed in the buildings of the former Ideological Institute in Winneba to form the Advanced Teacher Training College. Cape Coast University's special relationship continued with the A.T.T.C. In September, 1968, the Associate course in Education, then at the University of Cape Coast, was removed to the A.T.T.C.

As more and more graduate teachers from the University became available, the college developed a bias towards primary/middle school teaching, and now some specialist teachers from A.T.T.C. can be employed either in primary/middle schools or training colleges and secondary schools. As an aid to the new bias a primary school has been developed at the college where observation and demonstration lessons can be held.

Most of the students have received initial teacher training, and have either the 'O' or 'A' levels in their special subjects. The A-level qualification is specifically required for the science course.

It is now being proposed to phase out the Geography and History courses in favour of courses in Guidance and Counselling.

(b) SPECIALIST TRAINING COLLEGE, WINNEBA

The college offers 4-year diploma courses in Physical Education, Art Education, Home Science Education, and Music Education, intended primarily for teaching in secondary schools and training colleges. The three universities of Ghana give course guidance and are also responsible for final examination and certification, the University of Ghana for Home Science and Music Education, the University of Cape Coast for Physical Education, and (in conjunction with the University of Science and Technology) for Art Education.

Originally, the courses were intended to upgrade serving Certificate 'A' teachers in addition to the main objective of providing secondary level teachers. But the current trend is to extend admission to secondary school leavers and to shift entry requirements from Certificate 'A' to School Certificate Ordinary and Advanced levels.

Throughout the course the Ghanaian situation forms the background and context of learning and a conscious attempt is made to emphasise the relationship of courses to the environment. In Music, for instance, Ghanaian music and folk songs, including drumming and rhythms of Ghanaian ethnic groups and an application of compositional techniques to these, are emphasised. In addition, the piano is a compulsory instrument intended to provide the services needed in schools and colleges. In Home Science, the principles of foods and nutrition, home economics and management, housing and family relationship are studied within the context of the Ghanaian society. Special studies in these are undertaken by students as an essential part of the course. In Art, Ghanaian concepts and resources are utilised as media for creative work.

It was recently announced that the college would at the end of the current academic year break up into colleges or schools, namely, the Sports College, the National Academy of Music and the College/School of Art. Until a suitable accommodation is found, the Home Science Department will continue to be a department of the Sports College. There is the talk of bringing some of the University courses to the new colleges. These and the changes in entry requirements to the diploma courses seem to indicate a state of flux in which no definite prediction as to perspective can be made until the new educational structure is promulgated.

(c) OTHER SPECIALIST COURSES

- (1) The 2-year Housecraft course continues to be given in two colleges.
- (2) As from September this year five colleges will, in addition to the initial training course, offer 2-year specialist courses in Science and Mathematics to serving Certificate 'A' teachers. These specialist teachers, it is hoped, would help foster and sustain interest in the study and teaching of science and mathematics.

- (3) In order to meet the demand for more agricultural science teachers, it is hoped that three more colleges will, from September, 1974, organise in addition to the initial training courses, 2-year specialist courses in agricultural science. This would be in addition to the course now existing at Bagabaga Training College, Tamale. This would be a response to National Redemption Council's policy of self-reliance and the agricultural revolution now taking place in Ghana.

THE CONTINUATION SCHOOL AND SPECIALIST TEACHERS

The rapid expansion of the basic liberal education in the fifties led to an overproduction of Middle Form Four leavers, most of whom live in the rural areas, in relation to the type of job openings available to them. The Middle Form Four leavers are pupils from the last classes of the elementary school who do not go on to receive secondary education and they are twice as many as all the pupils enrolled in the secondary schools. In 1961/62 their number was 35,626, ten years later, i.e. in 1971/72, the number rose to 91,551 and this year it is over 100,000. It was, therefore, decided to turn the last two years of the elementary school, i.e. the 9th and 10th grades, into a Continuation School. Such schools are to prepare those pupils who do not go to the secondary schools in some practical skills which will predispose them to further vocational training. This is the first serious attempt in the history of education in Ghana to orientate Middle School pupils on such a large scale towards technical and vocational training.

THE PHILOSOPHY OF THE CONTINUATION SCHOOL

The aim of the Continuation School is to correct the notion derived from an earlier understanding of Western education, that education of the general academic type is superior to that of technical and vocational type. It aims therefore at providing education appropriate to the future calling of those who do not continue formal academic education. The courses are therefore patterned on the farming and industrial needs of the local community of the Continuation School, which course may be the study of agricultural, technical, domestic and commercial subjects. At the moment there are over 40 different courses offered at the Continuation Schools and they range from charcoalburning to kenteweaving, rabbitry, hairdressing, farming and fishing. The main problem that faces the Continuation Schools, apart from equipment, is the lack of specialist teachers. At the moment such teachers are recruited from government and private agencies, such as the Fishery Department, Department of Parks and Gardens, Ghana Industrial Holding Corporation, Ghana National Trading Corporation and private workshops where the pupils are taught such subjects as tailoring, shoe-making and hairdressing. The pupils are sent to the agencies and artisans for two days in a week to learn their particular chosen trades. Selected schools are provided with adequate specialist staff and equipment to teach Continuation School practical subjects. Two such schools are Elmina Continuation School, about 6 miles from Cape Coast, which has specialised in fishing, and Biriwa Continuation School, about 10 miles from Cape Coast, which has specialised in fishing, carpentry and joinery. There are over 80 such schools in the Central Region of Ghana alone.

There is some opposition to the Continuation School idea in certain quarters of the Ghanaian society. This opposition has stemmed from a prejudice against such schools which are regarded as schools for the less

intelligent children and educationally deprived pupils from the rural areas. It is feared that such schools will relegate rural children especially to a permanent working-class status. The opposition and fear are, however, leftovers of the colonial attitudes to education. But now the Continuation School idea is gaining a wider acceptance as a result of the emphasis that the present Military Government has put on the importance of agriculture for the recovery of Ghana's economy and on other practical courses. The Continuation School idea has, therefore, been incorporated into the new plan for the pre-university education and this will make Continuation School courses available to all children for 7 years, irrespective of intelligence. As has been pointed out earlier and judging from the experience of running the Continuation Schools, there will be an increased demand for all categories of specialist teachers to teach the practical courses and so for some time to come the combination of liberal and vocational courses in the pre-university study programme may determine the trend of innovation in teacher education.

INNOVATIONS AT THE UNIVERSITY LEVEL

At this level, the establishment of the University of Cape Coast in 1962 was unique in itself and was an innovation in teacher education in Africa. It was founded primarily to meet the demand for certified graduate teachers in schools.

In July, 1964 the Government of Ghana assigned specific functions to each of the three University institutions in the country in order to avoid duplication and wastage. The University of Cape Coast was assigned, as its main responsibility, the task of producing graduate teachers for the secondary schools, teacher colleges and polytechnics in the country. The University continues to be charged with this responsibility. It is thus a professional university meeting the high-level manpower needs of the teaching profession and of education in Ghana.

STRUCTURE AND FUNCTION

The University began in 1962 with two Academic Departments, the Department of Arts and the Department of Science. These developed into faculties in the second academic year, 1963/64. A third Faculty, that of Education, was established in the 1964/65 academic year.

The University still operates through these three Faculties made up of the following departments/centres:

- (a) The Faculty of Arts comprises the Department of English, French, Classics, History, Geography, Sociology, Economics and Religious Studies.
- (b) The Faculty of Science comprises the Department of Physics, Mathematics, Botany, Zoology and Chemistry.
- (c) The Faculty of Education is made up of the Department of Education, Department of Curriculum Development, the School of Education and the Centre for Educational Planning and Research.

The Faculties of Arts and Science cater for the teaching subjects of education and Faculty of Education provides mainly the professional education at both the undergraduate and postgraduate levels.

PROGRAMME OF STUDY

The following degree and postgraduate programmes are provided for the training of teachers: B.A. General (Education), B.A. Honours (Education), B.Sc. (Education), B.Sc. Honours (Education), B.Ed., M.Sc., M.Ed., Postgraduate Certificate in Education and Diploma in Advanced Study of Education.

The Undergraduate courses include the study of the Foundations of Education, Methodology, Organisational Studies, Practice Teaching for 8 weeks plus either one of two of the following subjects: for Arts students, History, Geography, Economics, English, French, Sociology, Greek, Latin, Religious Studies; for Science students, Botany, Zoology, Physics, Chemistry, Agriculture, Mathematics. The graduate courses involve specialisation in one of Education, Science or Arts.

INTERNATIONAL ASSISTANCE

A number of International bodies and projects give help in the running of courses and further training of staff in the University as follows:

(a) The UNESCO Science Project

The University has an agreement with UNESCO whereby the University receives technical aid in the form of equipment and of professors and lecturers in science subjects and education whose salaries are paid by UNESCO. The University is expected to admit a sizeable number of new students every academic year for courses leading to the B.Sc. (Education) degree. The idea is to increase substantially the output of qualified science graduate teachers for schools and colleges in the country, within the shortest possible time.

(b) French Technical Aid

There is another agreement whereby the French Government assists in the training of French graduate teachers, while the University is under obligation to set aside a number of places each year for new students who are qualified to include French in the number of subjects they will study for their degrees. The French Government provides, at its own expense, a number of lecturers and some language laboratory equipment for the teaching of the language up to degree level.

(c) The Technical Aid Scheme of the Netherlands Government

This is for the development of a Social Studies project. The University was chosen from among a number of African universities by the Institute of Social Studies at the Hague, a postgraduate institution for a special form of co-operation in teaching and research in Social Studies. This has meant the attachment of a professor and two lecturers from the Institute and the supply of suitable equipment for the project. Under this scheme, selected Ghanaians have the opportunity to undergo postgraduate training at the Hague to prepare fully for work as university lecturers.

(d) Other Aid

The University also obtains assistance from other international

bodies such as the British Council, the British Overseas Development Administration, the Inter-University Council of Britain, the Overseas Educational Service of New York, the Carnegie Corporation, and the Canadian International Development Agency.

Through the aid provided by the O.D.A., the Faculty of Education of the University of Cape Coast and the Institute of Education of the University of Keele have entered into a link agreement whereby the two institutions can exchange teaching staff for a year at a time. They also organize and run joint in-service training courses. Last year the two institutions ran a very successful long vacation course at Cape Coast on the organization and supervision of teaching practice. Candidates for the course were selected from the secondary schools and training colleges and the Faculty of Education now uses some of such trained teachers in the supervision of its student teachers on teaching practice.

THE IMPORTANCE OF TEACHER EDUCATION

In some sense, the establishment of a full-fledged University of Cape Coast wholly devoted to Education and the production of graduate and postgraduate teachers is in itself a revolutionary innovation in teacher education in Ghana, and possibly in the whole of Africa. Teacher education at the University level has been, and still is the concern of Institutes, Schools, Colleges and Departments of Education in existing Universities or University Colleges in many parts of Africa. The University of Cape Coast is unique, as it is, perhaps, the only university of its kind in the whole of Tropical Africa which has education and the training of teachers as its professional speciality. Thus the Vice Chancellor of University of Cape Coast in his matriculation address last December said: "It is quite plain that in order to receive public support and justify its existence as a relevant segment of society, the University of today must combine liberal and professional education. Every University in Ghana today does this in one form or another. In Cape Coast our professional speciality is education and the training of teachers."

INNOVATIONS IN IN-SERVICE TRAINING

In spite of innovations in teacher education at the initial training, specialist and university levels, the importance of in-service education in teacher education cannot be over-emphasised. Educational methods and thinking are constantly undergoing new orientations and directions. The rate of change sometimes is so fast that teachers after formal training in colleges may get quickly out of date unless a way is found to bring home to them new methods and new directions which will enable them keep abreast with changing educational thinking.

One of the ways by which new ideas are brought home to teachers is through in-service training programmes which from time to time bring teachers together and enable them to share ideas and examine how best new methods can be utilised in the classroom situation thereby improving their professional competence.

IN-SERVICE TRAINING IN HISTORICAL PERSPECTIVE

In-service training programmes in Ghana took up a special significance after 1951 when the Government's Accelerated Educational Programme was launched. This Accelerated Development Plan for Education

led to the rapid expansion in schools and in school enrolment. The number of schools and pupils increased phenomenally and the production of qualified teachers could not cope with the demand for them. A lot of untrained and unqualified pupil teachers, therefore, were absorbed into the system and there was as a result the urgent need to give them short and concentrated professional courses at Pupil Teachers' Centres which had been set up to train such teachers and also to organise training for them on the job through their headteachers and assistant education officers.

As a result of the expansion in number of teacher training colleges in the fifties and early sixties to cope with the increase in primary and middle schools, a lot of persons were admitted into teacher training colleges who would not have gained admission under normal circumstances. The necessity to have regular in-service training programmes became almost imperative.

NATIONAL OBJECTIVES OF IN-SERVICE TRAINING

In Ghana, the national objectives of in-service education have been defined as:

- (a) to eliminate weakness detected in the teaching/learning habits of teachers/pupils;
- (b) to reinforce desirable teaching/learning methods and techniques;
- (c) to upgrade teachers;
- (d) to introduce new methods and concepts incorporated in new syllabuses;
- (e) to render the teacher more effective in the classroom through self-confidence;
- (f) to inculcate in the teacher adaptability and committal to change and innovation;
- (g) to keep the teacher up-to-date, i.e. to make him aware of contemporary educational thought and practices as well as of trends in national policies.

ORGANISATION INVOLVED IN IN-SERVICE TRAINING

To achieve these objectives, the Ministry of Education of Ghana, through its chief courses officer, organises each year several in-service training courses, some with single subject bias and others with an integrated bias to give teachers new orientations. Apart from the Ministry of Education, the following organisations are actively involved, with collaboration of the Ministry of Education, in in-service training programme: Teachers' Subject Associations, School of Education, University of Cape Coast, Advanced Teacher Training College, Specialist Training College, Ghana National Association of Teachers and the National Teacher Training Council.

At the secondary school level, the importance of the teachers' subject associations in in-service training programmes cannot be underestimated. There are associations of teachers for most of the subjects offered in Secondary Schools, e.g. the Ghana Association of French Teachers and the Ghana Mathematics Teachers Association. Each Association assists its members to improve their academic and professional competence through meetings, courses, workshops and dissemination of literature and information. There is also the Consultative Council of Subject Associations which co-ordinates the activities of the subject associations and sees to the equitable distribution of grants. Every year there is a conference of the various subject associations, normally at one venue, and the opportunity is offered to teachers who may wish to attend lectures and activities of associations other than their own to do so. In this way, there is a cross-fertilization of ideas.

SOME FLAWS IN EXISTING IN-SERVICE TRAINING PROGRAMMES

Unfortunately, examination of the existing in-service training programmes indicates certain major flaws. For example, there has been no systematic documentation; the result has been that almost the same teachers have been invited to similar courses every year; many have not been catered for; the coverage has not been satisfactory. There has been the lack of effective follow-up programmes and little or no attempt has been made to evaluate some of the courses. There has also been little or no liaison between pre-service and in-service education; the result has been that the flow of ideas between colleges and the field and vice versa has been minimal.

INNOVATIVE TRENDS

Present thinking and recommendations indicate innovative trends to correct some of the flaws and imbalances in the present system. Among the many recommendations and trends, the following require attention:-

- (a) Establishment of a liaison between Training Colleges and their products in the field. Such a liaison will help provide the medium through which the colleges will receive the required feedback information from the field. The liaison can be established by arranging for Training Colleges to observe the work of teachers in an around their respective localities; by getting the staff, equipment and other physical facilities of Training Colleges involved in in-service training programmes.
- (b) The setting up of a National In-service Education Centre where course officers will be briefed and where in-service courses could be organised. Similar centres could also at a later stage be set up in the regions. Research evidence has shown that teachers are prepared to attend courses when and where adequate residential facilities in staff and equipment are available.
- (c) Organization of courses for elementary school teachers in three phases: (i) pre-institutional, when the participants are set assignments to prepare them for the residential course; (ii) the institutional phase, when participants are brought together either in a college or training centre;

- (iii) the post-institutional phase, which will involve a follow-up and assessment of participants in the classroom situation to find out how far they can implement what they have acquired at in-service training courses.
- (d) building up incentives into in-service training programmes to encourage teachers to take interest in such courses. The incentives may take the following forms:
 - (i) designing the courses in such a way as to enable teachers pass their promotion examinations while at the same time improving their professional competence;
 - (ii) successful completion of a prescribed number of courses spread over a number of years leading to the award of certificates carrying incremental credits;
 - (iii) awarding a certificate of attendance.
- (e) working out a programme so that graduate teachers who do not possess professional teaching qualification can take vacation courses spread over a number of years and qualify for the post-graduate certificate in education. It should be possible to organise in-service training courses in collaboration with the University of Cape Coast to enable diplomates also to prepare for the B.Ed. degree.

CONCLUSION

If we are to improve the quality of our teachers and the quality of education offered to our children then innovations in teacher education will continue to be made at all levels - initial training, specialist and university. In-service educational programmes should also be given their due importance. Educational change is so fast that it is not possible for training colleges to keep pace with new methodologies and anticipate future approaches. Teachers in the field will have to be acquainted with innovations on the job. To enable innovative ideas to be quickly and effectively transmitted to teachers in the field and teachers in training, there should be a constant flow of information between training colleges, universities and in-service training programmes.

Education in Ghana is committed to change and innovation as long as there is ample justification for the change. Even now proposals for a change in the structure of education in the country are being seriously considered. If these proposals are accepted, further changes in the teacher education programme will have to be made.

THE ROLE AND FUNCTIONS OF KENYA INSTITUTE OF EDUCATION

HISTORICAL BACKGROUND

The history of Curriculum Development in Kenya dates back to 1957 when an English Special Centre was established as a Section of the Ministry of Education and for the purpose of advising the Ministry on the new teaching methods and the development of materials for use in up-grading the standard of English, in particular Asian Primary Schools.

The Centre was so useful that in 1961 the Ministry set up another Centre, the Science Teaching Centre, with the aim of up-grading the standard of Science teaching in Kenya schools.

Most of the Science Teaching Centre's work was initially directed to Secondary Schools for which schemes of work and Teacher's Handbooks were produced in Physics, Chemistry and Biology. In 1965 and following a series of Mathematics Workshops at Entebbe, Uganda, yet a third Centre, the Mathematics Centre was established to introduce New Mathematics in Primary as well as in Secondary Schools.

Although part of the Ministry of Education, these Centres worked separately and independently of each other. In an attempt to co-ordinate their activities, and in an effort to set up an organization to prepare for Kenya schools relevant and excellent curriculum materials, these Centres were in 1966 brought under one administrative directorate called the Curriculum Development and Research Centre (CDRC).

Two years later, and in an effort to create a viable body of curriculum developers and teacher educators. CDRC was reorganised with another much older organization of the Ministry of Education called the Kenya Institute of Education, and became the present Department of Curriculum Development within the Institute.

The Kenya Institute of Education as such had previously been established in April 1964 as a direct result of Conference on Institutes of Education sponsored by the then University of East Africa held in Mombasa in January 1964 and attended by representatives from Ministries of Education in Tanzania, Uganda and Kenya, representing the then University Colleges of Dar-es-Salaam, Makerere and Nairobi together with participants from donor agencies.

Before the Institute was established there were two Delegacies, the Eastern and Western Teacher Training Organisations which co-ordinated the activities of Primary Teachers Colleges in Eastern and Western Kenya respectively.

The first meeting of the Board of Delegates of the new Institute was held on 2nd April, 1964. It outlined the Institute's policy and organisation. The most important factor underlying that policy and organisation is that the Institute "will associate together the then University College, Nairobi, (now University of Nairobi), all maintained Teachers' Colleges and the Ministry of Education."

While remaining part of the Ministry of Education, the Institute has a large measure of autonomy to enable it effectively to implement the policy of its Board.

ROLE AND FUNCTIONS

The role of the Institute in the educational life of Kenya may be summarised as preparing new and relevant curriculum materials, revising the existing course content, co-ordinating programmes (in particular of teacher education) and initiating and promoting innovative practices to improve the quality and quantity of education in the country.

In pursuance of this role, and as stated in Part VII, paragraph 23 of the Kenya Education Act of January, 1968, the Institute has set for itself the following main functions:

- (a) to undertake appropriate research activities leading to, among others, the preparation of relevant curriculum materials, as well as the provision of appropriate teaching aids, apparatus and equipment, for use in schools, Teachers' Colleges and other educational institutions;
- (b) to secure due publication of the results of these research activities and therefore, to provide an advisory service and library facilities for teachers in schools and tutors in Teachers Colleges;
- (c) to disseminate information to schools and Teachers Colleges on new teaching methods and techniques, and on the results of research from Educational Centres;
- (d) to promote and co-operate in the promotion of educational conferences, workshops, seminars and in-service courses for teachers and others engaged or intending to engage in educational activities;
- (e) to administer a scheme of examinations on behalf of the Ministry of Education for students in 'Teacher Education institutes, and to make recommendations for the award of appropriate Teachers' Certificate; and
- (f) to provide an advisory service to Government and other organisations as requested from time to time by the Minister for Education.

ADMINISTRATION AND ORGANISATION

As part of the Ministry of Education, the Institute is governed and administered under the provisions of the Kenya Education Act of January, 1968.

Subject to the provisions of this Act, the Institute has a Board of Delegates which is responsible for the general policy of the Institute, and whose Chairman is appointed by the Minister for Education.

Membership of the Board includes representatives from the Association of College Principals, Kenya Heads' Association, Kenya

National Union of Teachers, voluntary agencies, University of Nairobi, Ministry of Education and co-opted individuals.

The policy decisions taken by the Board are implemented under the vigilance of an Executive Committee, the membership of which is derived from the Board, on behalf of which it operates. The Chairman of the Board is also Chairman of this Committee.

The Board has a Professional Committee whose membership follows that of the Board itself; it has the Chief Inspector of Schools as Chairman. The Professional Committee, as its name implies, discusses and advises on matters pertaining directly or indirectly to the professional activities of the Institute, its member institutions, and its subject panels.

Internally the Institute has three Departments, each of which is headed by a Co-ordinator, and eight subject-based Sections all of which are within the Department of Curriculum Development.

In addition to their normal professional work, the four Co-ordinators, together with the nine Heads of Section, assist the Secretary in carrying out the day-to-day administration of the Institute.

At present the Institute has 55 full-time professional staff engaged in the various aspects of its functions. There are a further 70 supporting staff of various grades and categories.

ACHIEVEMENTS

From the on-going projects, a list of which is given below, the Jomo Kenyatta Foundation has so far published on behalf of the Institute some 96 titles, all of which have been included in the Purchase List of the School Equipment Scheme as required texts in schools.

Longmans of Kenya Ltd. have also so far published a total of 149 titles under the Tujifunze Kusoma Kikwetu Project. These books are being used in the Lower Primary classes during the Vernacular periods.

The Kenya Primary Mathematics Course was introduced to all Primary I classes throughout the country from January, 1971.

Work on the Safari English Course and also on New Primary Science is about to be completed, so that in the next year or so all Primary Schools will be using new courses in Mathematics, English and Science.

Since its inception in 1965, the New Primary Approach (NPA) technique of teaching has gained emphasis through all the Primary Teachers Colleges and in a large number of Primary Schools.

The Institute has a full-fledged Workshop for the preparation of various kinds of teaching aids and apparatus from local materials.

FINANCE

To support the on-going and proposed curriculum projects, the Institute receives the bulk of its funds from the Government of Kenya.

However, a number of other donor agencies and foreign Governments

have also substantially contributed to the projects through the provision of personnel, equipment and funds. For instance, while the Bernard Van Leer Foundation at The Hague, Netherlands, has recently agreed to generously support the Institute's Nursery School Education Project, the Japanese Government three years ago gave the Institute Science equipment and apparatus worth well over K£ 1000. The Institute is grateful for this and future assistance from any quarter.

DEPARTMENT OF CURRICULUM DEVELOPMENT

(a) Foreign Languages Education Section:

Three of this Section's main programmes are:

(i) Safari English Course:

In early 1966, the Pivot Course, initially developed by the Oxford University Press for use in Malawi and later on adapted to be used temporarily in Kenya, was intended to follow on the New Peak Course through the Upper Primary classes. This course was found to be unsuitable partly because it was based on difficult, different and far less effective linguistic principles, and partly because it was pitched too high for the pupils' ability in English.

There was an urgent need, therefore, to provide the Upper Primary levels with a course which has a logical and smooth continuation of the New Peak Course, particularly as the number of schools using the New Peak Course was increasing.

Since May, 1966, the Section has prepared and published both the Pupils Edition and the Teachers Guide of each of the Safari English Course books for Primary 4 to 6, which are already in use in most of our Primary Schools. Safari English Course Book 4 for Primary 7 has just been published by the Jomo Kenyatta Foundation.

(ii) Teaching of French in Secondary Schools:

Acting on a decision reached in one meeting of the Organisation of African Unity Ministerial Committee that Ministries of Education in member-states should make every effort to encourage the teaching of French and English in the Anglophone and Francophone countries respectively, the Kenya Ministry of Education decided to introduce the teaching of French in a few selected Secondary schools. In view of this decision, there was an urgent need to develop materials for use in these schools at both 'O' and 'A' levels. So far A Guide to the Teaching of French has been prepared.

(iii) Preparation of Supplements to the Texts for the East African Certificate of Education Examinations:

The writing of these supplements began in the second

half of 1968 and was initially intended to be experimental. However, due to heavy demand from schools for the Supplements, the programme has become "permanent".

(b) African Languages Education Section:

(i) Masomo ya Kiswahili Project:

This Project was established in 1965 following recommendations of the Ominde Education Commission Report and the Hutasoit New Primary Approach (NPA) Report on the use of Kiswahili in Primary Schools.

As a result of these reports, Kiswahili was included in the Primary School Syllabus in 1967. At the same time plans were formulated by the Ministry of Education to prepare a four-year Course in Kiswahili as a second language.

By 1969 the four books that constitute the Masomo ya Kiswahili Series had been written and published, and were in use in Primary 4 - 7 in all parts of the Republic.

(ii) Teaching of Kiswahili in Secondary Schools:

Since its inception, the Section has been preparing schemes of work for use in Forms I to IV in the Secondary Schools.

Because of the recent changes in the Kiswahili Syllabus to conform with the requirements of the East African Examination Council, these schemes of work have become out-dated.

The Section has decided to prepare A Guide to the Teaching of Kiswahili in Secondary Schools which will be in the form of a text book, the content and approach of which will not only emphasize basic principles of teaching Kiswahili, but will also be "permanent".

(c) General Methods Section:

(i) Tujifunze Kusoma Kikwetu (TKK) Project:

A mini-survey done in 1966 revealed that there were quite a number of non-readers in Primary 2,3, and 4, and that many of those who could read did so mechanically and without understanding the content of what they read.

Faced with the problem, the Section planned to prepare Reading Materials which were all illustrated, relevant and suitable and therefore which could attract and sustain children's interest in reading.

Such materials were to be prepared under this Project, and were to emphasise the development of children's meaningful reading.

(ii) A Scheme of Handwriting:

Writing is a means of communication and the process of practising handwriting should never be separated from the meaning of what is being written. The words and sentences which the children write should be chosen from things which have meaning and interest for them. Although the recommended style of Handwriting at present is "Marion Richardson," it renders problems to both teachers and children, as a result of which little of this style of Handwriting is practised in our schools to-day. The Section strongly believes that children should be encouraged to print first, a style they often see in their first readers, before they develop cursive Handwriting.

(iii) A Teachers' Handbook of Stories:

The Primary School Syllabus 1967 recommends that during the Mother-tongue periods in the Lower Primary classes, the child should be guided into talking about pre-school and home experiences in language he can best use. The telling and discussing of folk tales, riddles, songs, and proverbs should be included at this level.

The Teachers' Handbook of Stories aims to help the teacher towards achieving this objective.

(iv) Guidelines on "Grouping Children in the Classroom"

Not all teachers understand why and how grouping children in the classroom should be done so as to give maximum individual attention, and the tact and right personal attitude in which it is done.

In view of this, the Section is in the process of preparing the said Guidelines.

(d) Mathematics Education Section:

(i) Kenya Primary Mathematics Project:

The Mathematics text-books in use in Kenya Primary Schools before independence were found by the Ministry of Education to be far outdated in both content and approach.

The Ministry decided in 1964 to begin a long-term New Primary Mathematics Project under which a new series of modern texts would be prepared to improve Mathematics Education. These texts were to be

patterned after the Entebbe Mathematics Series. After seven years of writing, adaptation and experimentation the Kenya Primary Mathematics Course Book 1 was introduced in all Primary classes throughout the Republic in 1971.

Although the basic skills to be mastered are the same, the Kenya Primary Mathematics Course books emphasise the understanding of the structure of Mathematics rather than memorisation of basic operations. In this way, the new Course aims at exciting the child's creative abilities and enabling him to adopt a practical approach to solving Mathematical and other problems.

To enable the child to achieve this more easily and rapidly, a number of Wall-Charts, Work-cards and Games have been designed and included in the Teachers Guides to the new Course books.

(ii) Schools Mathematics for East Africa (SMEA) Project:

The Project was started at the same time and for the same reasons as the Kenya Primary Mathematics Course, except that it was concerned with the development and adaptation of materials for use in Secondary Schools. At the moment, 200 pilot schools are using the text books and other teaching aids prepared under the Project.

(e) Natural Science Education Section:

(i) Kenya Primary Science Course:

As far back as 1961 the Ministry of Education had realised the need for a Primary Science Course reflecting not only the child's needs, and environment, but also emphasising the enquiry approach.

In that year, the Ministry decided to set up a Science Teaching Centre to cater for improvement in science education at both Primary and Secondary levels.

This centre, now part of the Natural Science Education Section, immediately started working on new Primary Science Units, as required by the Ministry. In doing this, the Centre worked very closely with the African Primary Science Programme (APSP) of the Education Development Centre (EDC), Newton, Massachusetts, USA, and with other similar Centres in English speaking African countries. The African Primary Science Programme has, effective from 1st July, 1971 become the Science Education Programme for Africa (SEPA) which has its headquarters in Accra, Ghana.

The Section has now completed some 60 such units, two

films - the Village School and the Village Teacher, and a set of science kits. These materials are being reorganised into the Kenya Science Course.

(ii) Schools Science Project (SSP):

In an effort to improve science education, a few secondary schools as far back as 1965 were using new science materials based on Nuffield Physics and Chemistry Courses then in use in Britain.

At that time, UNESCO was also already contributing to the process of modernising science materials by supporting and encouraging the establishment of National Study Groups engaged in curriculum reform in all aspects of science teaching.

In an attempt to streamline and to co-ordinate the activities of these National Study Groups and those of other science organisations involved in Science Curriculum changes, a meeting was held in Nairobi in March, 1968.

This meeting was attended by not only representatives of the various National Study Groups, but also by officials of the three Ministries of Education in Uganda, Tanzania and Kenya, as well as by representatives from the then Centre for Curriculum Renewal and Educational Development Overseas (CREDO) and from UNESCO. (CREDO has since been incorporated into the Centre for Educational Development Overseas (CEDO).) At this meeting, it was agreed that curriculum materials should be prepared for schools in East Africa under the Schools Science Project (SSP). Such materials should (a) reflect local needs and national aspirations and (b) emphasise the enquiry approach i.e. maximum student Pupils' Texts, Teachers' Manuals Teaching Aids and Students' Readers.

Work on the preparation and adaptation of such materials started immediately, and the Ministry of Education selected about 20 pilot schools to use the resultant experimental edition in each subject area, namely Physics, Chemistry and Biology.

(iii) Materials for the Teaching of Agriculture in Secondary and Primary Teachers' College:

In an effort to improve the teacher of Agricultural education in Kenya Secondary Schools, the Ministry of Education decided to introduce a new syllabus, Principles and Practice of Agriculture, in a few selected schools in 1962.

This syllabus emphasised among other things, the solution of Agricultural problems through investigation

and experimentation.

In accordance with the decision of the World Bank in 1961 that the teaching of Agricultural education should be expanded, the Ministry increased not only the number of secondary schools teaching this syllabus, but also extended the programme to Primary Teachers Colleges.

Despite the supply of Agricultural equipment to these schools there was an extreme shortage of suitable text-books to support the syllabus.

The Section is therefore preparing materials on Crop and Animal Husbandry, Farm Economics and Management and Soil Science to fill this gap.

(iv) The Teaching of Home Science in Secondary Schools and Teachers' Colleges:

Previously, the title for this subject was Domestic Science, which included Needlework, Cookery, and Mothercraft. In the middle of 1967, the Ministry of Education decided to reorganise the Subject under a new name, Home Science, which included the following areas:-

Food and Nutrition,

Clothing and Textiles and

Home Management.

In preparing texts and other teaching aids for Home Science, it is vitally important to recognise that this is a practical subject requiring laboratory facilities and equipment in the institutions where the subject is offered.

(f) Social Sciences Education Section:

(i) An Integrated Social Studies Project:

The creation of this Institute's Social Sciences Education Section in March, 1968 was a direct result of a Conference of African Educators, representatives of EDC and of the then CREDO (now CEDO) at Queen's College, Oxford, England, in September, 1967.

The main aim of this conference was to explore co-operatively the needs and priorities in curriculum development of participating African countries, and to consider how both EDC and CEDO might jointly or severally assist these African countries in meeting these needs.

The Oxford Conference identified a variety of needs

at the Primary, Secondary and Teacher Education levels, but a consensus emerged on the need to give prior attention to the development of Social Studies materials for use in Primary Schools.

The conference resolved, among other things, that:

- (a) arrangements should be made for the distribution information about the existing state of curriculum development in the field of Social Studies
and
- (b) E.D.C. and C.E.D.O. should convene within the next year a conference of Social Scientists and other educators from Africa, Britain and the U.S.A. to share experiences and to develop a strategy for the preparation of materials in Social Studies.

The Conference referred to in (b) above was duly convened in Mombasa, Kenya, in August, 1968, and as a result of that Conference,

- (i) the African Social Studies Programme, with its Headquarters in Nairobi, was established,
- (ii) a co-ordinating Committee was set up to assist in the administration of the Programme whose chief function is to collect and disseminate information and materials on the new Social Studies Courses in Africa.

The Section staff preparing materials under the Integrated Social Studies Project have received a great deal of assistance from the African Social Studies Programme.

The Project's experimental materials are intended to strengthen the awareness of the Primary School leavers' immediate environment, develop their social studies skills and ultimately provide for a better approach to the teaching of Social Studies in Secondary Schools.

(ii) The Secondary Schools Geography Project for the Development of Materials at the KJSE Level:

The new KJSE syllabus introduced in 1969 emphasises the study in depth of specified topics, including clear interpretation of geographical concepts and strategies.

In this respect the syllabus calls for new materials to be prepared and developed with these concepts and strategies in mind. Hence the establishment of project.

(iii) The Secondary Schools Project for the Development
Materials at the East African Certificate of
Education (EACE level):

In drawing up the new 'O' Level Geography syllabus, emphasis was laid on field work. In doing this, it was recognized that none of the existing Geography texts were suited to the suggested strategies in Geography teaching. There was thus a need to write new materials to meet the new situation. Hence the project.

(iv) The Secondary Schools Religious Education Project:

The joint Christian Religious Education Panel has recently prepared an 'O' level Religious Education syllabus. This syllabus incorporates the teaching of "themes" and the use of African Religious and Beliefs as a basis for teaching the subject. New materials are required at all levels, to meet this shift in emphasis.

(g) Business, Industrial and Technical Education Section:

(i) Business Education Project:

The area of business education is presently undergoing considerable expansion in the Kenya Secondary School system. Until recently secretarial training was largely handled by private business Colleges and by two government training institutions.

Schools that wanted to offer business education had to follow the Cambridge syllabuses which were British-oriented and which did not stress secretarial studies.

In 1970 the Ministry of Education decided to improve the Business Education programme in Kenya by starting a business teacher education course at Kenyatta University College. 1971 the Ministry supplied selected schools with business equipment so that expanded programme could be effected.

If the business education programme was to improve and make full use of the new teachers and equipment, new syllabuses had to be prepared to replace the ones from Cambridge. These new syllabuses in Commerce, Principles of Accounts, Typewriting with Office Practice, and Shorthand were prepared by the Kenya National Advisory Committee on Business Education during 1971 and submitted to the East African Examinations Council for approval. Sixteen selected schools began teaching from the new syllabuses on an experimental basis in January, 1972.

The initial objective of this project was the preparation of the new syllabuses. Now that this has been accomplished, the objective is to ensure that the syllabuses are the best possible and that they truly apply to Kenya.

Also, every effort will be made to ensure that the syllabuses

are presented in the manner intended and that they are introduced in as many schools as is feasible.

(ii) Industrial Education Project:

Kenya is rapidly taking her place in the modern world not only as a consumer of industrial goods but as a producer as well.

As Kenyan youth take their place in this increasingly technical society, they must be prepared to participate as both informed producers and consumers. It is through the study of Industrial Education that the schools seek to acquaint Kenyans with this area. It must be noted that the study of Industrial Education is not devoid of other disciplines and set off as a separate entity. Rather, it provides the setting within which elements learned in the academic setting and can be applied, reinforced and supplemented. In addition, the student is given the opportunity to develop the ability to work with a minimum of personal direction and assistance and to develop his powers of creativity and initiative.

According to the Development Plan 1970 - 1974 the Kenyan Government is firmly committed to an expansion of the offerings within practical subjects in the secondary schools. The plan states:

"In practice, this means that there will be a rapid increase in the number of lower secondary schools offering practical studies in agriculture, commerce, industrial arts, and home science.

The purpose of these courses will not be to produce individuals who are qualified to pursue course-related professions upon leaving schools, but to instil in the children an appreciation for skilled manual work, and to establish some of the basic skills required in a broad range of occupations." (Development Plan 1970 - 1974, page 460)

(iii) Technical Education Project:

This Project has as its major purposes the localization and standardization of all technical syllabuses employed in the secondary technical schools in Kenya.

The first objective of the Technical Education Project is to produce syllabuses for all secondary technical courses.

The second objective is to produce teaching materials which should accompany these syllabuses such as sample schemes of work, project, information and job sheets, and ultimately texts which reflect local conditions and needs.

The third objective is to work towards the general improvement in teacher skills and knowledge through in-service workshops and seminars.

The fourth objective is to assist other Ministry officers in the planning of facilities and equipment for the expansion of technical education programme. The final objective is to conduct extensive evaluation of the technical education programmes being offered in the schools with a view to their improvement.

The subject areas to be covered under the Technical Education Project are as follows:

(a) Forms 1 and 2

Metalwork
Woodwork
Technical Drawing

(b) Forms 3 and 4

Common Core Subjects
Mechanical Engineering
Electrical Engineering
Automotive Engineering
Agricultural Mechanics

(c) Forms 3 and 4

Basic Civil Engineering and Building Courses
Diagnostic Core
Masonry
Carpentry
Joinery
Plumbing

(d) Pre-Technician Courses for Forms 3 and 4

As for (c) above.

(e) Cambridge Technical Syllabuses for the E.A.C.E. Examination

Woodwork
Metalwork Engineering
Geometrical, Mechanical and Building
Drawing
Technical Drawing
Engineering and
Workshop Practice

(h) Instructional Materials Section:

(i) The Design and Construction of Teaching Aids from Local Materials

In general, the major duty of the Section is to support and reinforce the curriculum activities of the various other Sections

of the Institute and of those other organisations particularly within Kenya that are engaged in similar activities.

For the purpose of preparing the much needed cheap Instructional aids from local materials to supplement expensive commercially produced aids, the Section has a full-fledged Production Workshop.

To assist teachers in the construction of these instructional apparatus, the Section must necessarily prepare basic designs and diagrams, including Notes for use by the teachers.

The major aim of the programme is to reduce the cost of producing these aids for each school.

(ii) Art-work for the Institute - prepared Book-Materials:

One of the ways of reducing the cost of Institute-based books and other educational materials is by having all illustrations and art-work designed by the Section's team of full-time artists.

(iii) The Audio-Visual Aids Display Room:

Instead of the old-fashioned chalk-and-talk method of teaching, many countries have introduced many and better methods in order to keep pace with the technological changes in Science and other fields.

In the case of Kenya, the need for an Audio-Visual Aids Display Room and library is of paramount importance.

(i) Music Education Section:

This Section has been established only very recently and is intended to:

- (i) review the current Primary School Music syllabus;
- (ii) prepare suitable teaching materials at all levels of the school system up to the University;
- (iii) organise necessary in-service courses including workshops and seminars for Music teachers; and
- (iv) assist in the planning and organisation of Provincial and National Music Festivals.

DEPARTMENT OF TEACHER EDUCATION

- (a) One of the Institute's major functions is to co-ordinate professional and academic studies offered in Teachers Colleges and to administer a scheme of examinations for these institutions.

The Department discharges this responsibility through:

- (i) the preparation of syllabuses for the various courses of study;
- (ii) the appointment of 'external' examiners in particularly Practical Teaching;
- (iii) the setting of central examinations in Education and Methods, Mathematics and Kiswahili; and
- (iv) Moderation of other college-set examinations.

(b) Co-ordination and Organisation of In-Service Teacher Education Activities

As a result of frequent changes in educational content and methodology as well as the general need for professional improvement, many in-service courses are organised in the country.

In order to ensure maximum utilisation of the limited financial and personnel resources the Department co-ordinates in-service courses organised by various educational agencies including the various sections of the Institute.

(c) Organisation of the In-Service Course for Unqualified Teachers:

Owing to rapid expansion of primary education prior to and after Independence, the demand for qualified teachers greatly exceeded the supply from Teachers Colleges.

By 1965 there were no fewer than 10,000 untrained teachers out of a teaching force of about 40,000.

Because of the concern about the adverse effect on primary Education resultant from this high proportion of novice teachers, the Ministry of Education, with the generous assistance of the Canadian Government, decided in 1966 to establish the In-Service Course for Unqualified Primary School Teachers, to enable unqualified teachers already in teaching service to obtain at least the P3 teaching status.

The Department has been operating this Programme since then.

(d) Organisation of the Headmasters In-Service Course:

Realising the need to enhance the position of the Primary School Headmaster in the light of the changing educational content and pedagogy, the Ministry of Education decided, in 1966, to launch this Course and was again assisted by the Canadian Government as in part (iii) above.

DEPARTMENT OF EDUCATIONAL RESEARCH

(a) Combined Research Project:

The Primary purpose of these projects is to introduce College

Tutors and their students to the techniques and processes of research in education and to give them first hand involvement in the design, implementation and analysis of a research project.

The topics for research are arrived at during the Tutors Workshop. Thereafter they prepare the manuals of instructions, design the manner in which the data is to be collected and receive training in how to do simple analysis of the data.

The Tutors next train the students who are to carry out the Project and then prepare a preliminary analysis before sending the data to the Department.

In deciding on the Project, the Department gives priority to topics whose results are likely to produce data and reports on important educational matters.

(b) An Analysis of the Certificate of Primary Education Examination 1971:

Resulting from two projects on Modern Mathematics done in early 1971, it was found out that of 50 questions in the first test only 26 were good, and in the second last of another 50 questions, only 30 were good. The bad items were due to either the questions being too difficult or distractors not being effective at all.

Curriculum developers in other subject areas expressed interest in having item analysis done on their 1971 CPE paper as well. The Department therefore decided to do a complete analysis of a representative sample of the 1971 CPE.

- (c) The main purpose of this project is to provide a subjective and empirical data analysis of the examination. The data will be useful to policy makers, test-item writers and curriculum developers. Data gathered will also provide information for analysis of various curriculum programmes.

(d) Comparative Study of Kenya Primary and Traditional Mathematics Courses:

The Mathematics Section is interested in evaluating the Kenya Primary Mathematics, a new Course which was examined at CPE level in 1971, in order to find out whether there is any difference at all in the performance of pupils taking the new Course and those taking Traditional Mathematics. Without being told, both Modern and Traditional Mathematics Pupils will sit both tests and the analysis will show how Traditional Mathematics pupils performed on the Modern Mathematics, whether it is different or same as the Traditional Mathematics.

This exercise will help the Department and the Section determine if there are any differences between the performances of pupils who were exposed to both Courses.

(e) Nursery School Education Project:

A survey of Day Care Centres conducted by the Child Development and Research Unit of the University of Nairobi, in 1969, revealed that there were over 5,000 such Centres in the country.

The activities in those Centres varied greatly from actual classroom teaching, as in a Primary School, to centres that merely acted as playgrounds for children without actually fostering in the children any positive ideals and attitudes at various stages of their development. Although there are now four national training institutions of teachers of such Centres, the output is far too small for the rapidly increasing numbers of the Centres.

So far no curriculum has been produced for the nursery school teachers nor one for use in these Centres. There is also no evidence to show the usefulness or the need for these Centres.

This Institute in collaboration with the City Education Department of the Nairobi City Council and with the generous assistance from the Bernard van Leer Foundation at The Hague, Holland, has established an experimental project in the training of teachers, curriculum development and evaluation of pre-school education as a basis for preparing long-term plans to meet these demands.

THE JOMO KENYATTA FOUNDATION

In the wake of the Kenya Government's determination, especially after Independence to involve itself in the public and private sector of the country's economy, the Government showed initiative in the establishment and the encouragement of indigenous publishing firm. Thus the birth of the Jomo Kenyatta Foundation, a non-profit making Kenyan organisation controlled and directed by a Board of Governors under the Chairmanship of His Excellency The President Mzee Jomo Kenyatta; the running and management of its daily affairs is in the hands of a Secretary-General.

This body was established in 1966 with the view of furthering the educational programme of Kenya. In other words, the Foundation was conceived for the purpose of making genuine and effective contributions towards the Kenyanisation of Education. The first aim of the Foundation then was specialization in the school book publishing field, thus providing a full range of modern school text-books with a Kenyan environment which reflect the ideals, ambitions, interests and aspirations of the Kenya nation. It was entrusted with the task of wresting control of our educational system from foreign firms (which for a long time have been controlling the school book market in Kenya) and thus preventing the large sums of money involved leaving the country.

Since its inception, the Jomo Kenyatta Foundation has been actively engaged in publishing and distributing books out of materials prepared by the staff of the Curriculum Development Department of the Kenya Institute of Education. The materials of these prepared courses are not only relevant to the needs

of the country, but are also geared to reflect the culture of the nation. The Kenya Government has objected to the practice of adapting and placing in our schools, especially at primary level, materials published in other parts of the world, with only a change of name used in the text.

These school courses include the Safari English Course for Standards four to seven, the Kenya Primary Mathematics for Standards one to seven, the Masomo Ya Kiswahili for Standards four to seven, the Science Scheme of Work for Standards one to seven and the Lesson Notes for Christian Teaching in Kenya Schools for Standards five to seven. Also in these primary courses are supplementary readers and wall charts which include Teachmaster and Workmaster aids.

In addition the Foundation has published the First Kenya Atlas and a metric system booklet. It is also engaged in producing trial materials which will be used in Secondary Schools; these include SSP materials and Kenya Advanced Mathematics Project at 'A' level. The Foundation has so far published over eighty titles.

Apart from publishing and distribution of books, the Foundation is required to channel the revenue from the publishing of Kenya Government-prepared courses into a scheme which will operate a merit-award scholarships programme. Hence the money accruing from the sales of the said books is used not only to develop new educational materials, but also for scholarships for needy and worthy children who have gained admission into Government maintained secondary schools. Between 1968 and 1971, one hundred scholars in Kenya Secondary Schools benefitted from this scheme. Two hundred more pupils who joined Form I in 1972 were awarded scholarships by the Foundation; and it has been planned that these awards will be made annually, while the number of pupils benefitting will be substantially increased every year.

TEACHER EDUCATION IN LESOTHO

Lesotho's educational system is handicapped by a shortage of trained teachers and a lack of centralisation for a small country of its size with a million inhabitants. Almost all of its schools are owned and run by religious missions with a large element of untrained teachers. (See appendix I, II & III below).

PRE-SERVICE COURSES

Presently teacher education is carried out by seven widely dispersed mission-controlled colleges which are concerned with

- (a) a three year post-primary course known as the Lesotho Primary Teachers' Certificate (for standards 1-5 pupils) and
- (b) a two-year post-Junior Certificate (three years after primary) Higher Teachers' Certificate (for standards 5-7 pupils).

The former course is being phased out while the latter will in due course be replaced by a three-year Primary Teachers' Course whose candidates will be allowed to opt for specialisation in the upper or lower classes as the case may be. One college offers a two-year post-Cambridge (O-Level) Junior Secondary Teachers' Certificate Course with a new intake every two years to alleviate the problems of inadequate accommodation and staffing shared with a neighbouring college for this purpose only. As at present all primary Headteachers must hold a minimum of Primary Higher Teachers' Certificate.

In 1970, there were 695 trainees in the seven colleges - an average of less than 100 in each. It has been the opinion of numerous international education missions that have visited Lesotho in the last ten years that one central and well-equipped institution could conduct the work of teacher education at this level more efficiently and effectively than the seven existing colleges. In addition, the government of Lesotho is concerned that the kind of education currently offered in the country's primary and secondary schools is not preparing students for the developmental tasks outlined in the National Development Plan.

Lesotho is predominantly a rural-agricultural country and consequently its education should be orientated to an environmental and functional approach. Since the key person in any process of internal reform or adaptation of an educational system is the teacher, teacher education would seem to be the logical focal point for change. In establishing a National Teachers' College that will offer a programme less academic and more functional in approach the government hopes not only to gain control over education at the primary and junior secondary levels but to guarantee a general reform of its contents and methods.

The Faculty of Education at the University of Botswana, Lesotho and Swaziland is charged with the education of Secondary School teachers. Various diploma courses (general and special) are offered for this purpose to candidates who qualify for admission. Recently a Mature Entry formula has been devised to encourage teachers to improve their qualifications up to and

beyond a Bachelor of Education degree. The normal students can take a four-year arts or Science degree concurrently with education after a good pass in a Cambridge Overseas Senior Certificate (O-Level) exam.

The supply of these teachers is far short of demand and the prospects are more bleak owing to competition in recruitment by the Civil Service, commerce and industry for young graduates, due to the policy of localisation of senior posts. The alternative source, i.e. the recruitment of expatriate teachers, is fraught with the hazards of maladjustment when it comes to younger and inexperienced teachers whose contracts expire just when they get acclimitized. Our scholarship policy and system of bonding is subjected to criticism from some quarters because of its bias in favour of teacher education and the lack of appreciation of what we consider to be its potential future multiplier effect on other areas of the country's manpower requirements.

IN-SERVICE COURSES

In-service courses for Primary Teachers take the form of:

- (a) Up-grading courses for unqualified teachers conducted jointly by the Ministry Inspectors and tutors of Training Colleges (including a considerable number of better qualified teachers exposed to training in U.K. and other Commonwealth countries through the Commonwealth Fellowship Scheme, etc.) This course covers three years with about 6 months (two per annum) residential training and correspondence tuition in the intervening periods leaving to a certificate that guarantees the holders a permanent status and better remuneration while the others are by law temporary in the teaching service.
- (b) The same team conducts annual primary headmasters' courses (for one month) aimed at their orientation to change and familiarisation with innovations in curricula or educational thinking generally. More than three quarters of the teachers concerned have been exposed to these courses during the last three years.
- (c) Whole staffs of 12 primary schools have been included in an innovative project led by a team from Durham (U.K.) to carry out activity methods and the child-centred philosophy. These schools will also serve as teachers' centres for the surrounding schools. It is hoped that by 1975 forty schools will be involved in this project and as from this year the Faculty of Education teacher educators and the inspectors concerned will be involved in a programme of careful programming and evaluation to ensure its success as, hopefully it may help to promote changes in the whole system which is not only authoritarian and traditional in every sense of the words but adverse to any form of creativity and independent research by teacher and pupil.
- (d) Apart from these, teachers hold periodical and/or week-end workshops on curriculum development in special subjects such as English, mathematics and science under the guidance of the Ministry's specialists.

At the Secondary School level there are regular programmes designed and conducted by the School of Education in collaboration with the Ministry officials concerned on various subjects, for each of which there is a national association with a panel that has a right to suggest changes on the syllabus and form of examination. Teachers nominated for these courses are expected to attend and, so far, the University has been able to pay for the expenses out of the Carnegie funds at its disposal.

APPENDIX I

Projections of School Enrolment:

<u>Year</u>	<u>Primary</u>	<u>Secondary</u>
1973	179,738	9,577
1974	184,231	9,766
1975	188,836	10,127
1976	193,556	10,291
1977	198,394	10,501
1978	203,353	10,759
1979	208,436	11,007
1980	213,646	11,282
1981	218,987	11,564
1982	224,461	11,853

Growth rate of pupils' enrolment: 2.5% p.a.

Standard of enrolment represents 7% of the projection

Form A enrolment represents 25% of the projection

Progression through Forms A, B, C and D is based on the following:

A - B = 86%	C - D = 40%
B - C = 84%	D - E = 85%

APPENDIX II

Teachers in Lesotho by Levels and Qualifications:

1972

<u>Level</u>	<u>Qualified</u>	<u>Unqualified</u>	<u>Total</u>
Primary	2604	1324	3928
Secondary	246	1145	391

APPENDIX III

Student-Teacher Ratios by Levels and Qualifications:

1972

<u>Level</u>	<u>Qualified Teachers</u>	<u>Qualified & Unqualified Teachers</u>
Primary	67 : 1	45 : 1
Secondary	36 : 1	22 : 1

TEACHER EDUCATION IN MALAWI

The training of teachers in Malawi is determined to a large extent by the country's national needs as reflected by the present structure of the teaching profession. There are at present two categories of teachers, namely, University graduates and diploma teachers on the one hand and those with the Ministry of Education Teachers' Certificate on the other. The former are trained specially for secondary schools while the latter teach in primary schools. However, some teachers, such as some of the vocational teachers and teacher trainers, have been trained overseas.

(a) Graduate teachers University graduates with no teaching qualifications are required to enrol for the University Certificate in Education course run by the University of Malawi. The course is in three parts. The course is in three parts. The first part is a residential course lasting about eight weeks during the long school holiday. Students are introduced to the art of teaching through participation in lectures, interdisciplinary seminars, micro-teaching and tutorials. During the second part of the course students go to their respective schools and are engaged in full-time teaching. They are supervised by staff from the University who observe them teaching and provide tutorial assistance with both their teaching and with assignments which are set for this period. The third and final part of the course is another eight-week residential course held during the long school holidays. Students are assessed on the promise they show of becoming good teachers. This assessment is based on the results of the examinations as well as on performance during teaching practice. Successful students are awarded the University Certificate in Education.

(b) Diploma teachers Not all the students who qualify to enter the University of Malawi take degree courses; a good number take diploma courses in Agriculture, Administration, Engineering, Business Studies and Education.

Straight Diploma The majority of the Diploma teachers take the normal Diploma course in Education lasting three years. Students are required to take two teaching subjects and Education up to part I degree level. The purpose of the Education course is to help students to become effective secondary school teachers, capable of adapting themselves to changing conditions in Malawi schools. The course in Education includes such subjects as the History and Philosophy of Education, Psychology and Sociology of Education, Comparative Education; and methodology and Teaching Practice. The best of the Diploma students go on to a two-year B.Ed course.

Special Diploma The introduction of Agriculture in our schools made it necessary to recruit people with either a University degree or Diploma in Agriculture and take a special Diploma course in Education in order to qualify as teachers.

(c) Teachers for Technical subjects in Secondary Schools: Twelve Secondary schools have been equipped to handle subjects like Woodwork, Metalwork and Technical Drawing. The necessary teaching staff for these subjects has been produced from three consecutive yearly intakes, numbering 12, 12 and 8 respectively. The training of these teachers has been a combined

effort of two constituent colleges of the University of Malawi, namely Soche Hill College and the Malawi Polytechnic. Soche Hill College concentrated on teaching methods while the Polytechnic gave the technical element. Teaching practice was supervised by the staff of the two colleges. Apart from technical teachers for secondary schools, a number of vocational teachers trained to instruct either Carpentry or Brickwork has been trained within Malawi. This group of teachers took a 3 years course leading to the Advanced Craft certificate of the City and Guilds of London Institute. Like the other one, this course had a component of teaching methodology.

(b) Primary School Teachers There are at the moment four different grades of teachers in the primary school system. These grades are generally known as T5, T4, T3, T2. T5 is the lowest grade while T2 is the highest. All the training colleges in Malawi offer a two-year course. The initial academic qualifications of candidates determine the grade of the Teacher's Certificate to be awarded. The T5 certificate was awarded to those who enrolled for courses at colleges without having obtained the Primary School Leaving Certificate. Such people had to pass an entrance examination before being accepted at Colleges, and the medium of instruction for the T5 course was in the local language. The Government later raised the entry qualifications to these colleges to Primary School Leaving Certificate and the grading of the Certificate was T4. The entry academic qualifications to the T3 course is the possession of a Junior Certificate and to T2 the possession of School Certificate or its equivalent.

There are eleven small T3 colleges and two T2 colleges scattered all over the country and it was felt that this was expensive and inefficient. The government has, therefore, planned to establish three colleges, one in each region. Two of these colleges are already in existence. Domasi College, which has been training our T2 teachers for several years, will be expanded when it moves to Blantyre later this year. Lilongwe Teachers' College opened in October, 1971. It has accommodation for 540 students, with an annual intake of 270 and will have a staff of 30 when it reaches its optimum level. The third college is still in its planning stages and according to the present plans this will be built in Mzuzu, in Northern part of Malawi. It is hoped that with the establishment of the three colleges the available resources will be used to the full and that there will be greater efficiency in the training of teachers. It is believed that a few years from now the three colleges should be able to produce enough teachers of a better quality to cope with the present shortfall and the rapid increase of the school population. This increase is not a result of population growth. Rather, it is a result of increased parental interest in the education of their children. Every effort is being made to recruit better qualified staff for these colleges, both locally and from abroad. Among the local staff, there are a few graduates and specially trained diploma teachers with varied experience in primary education.

An important milestone in the history of education in Malawi was the holding of the Education Conference in April, 1972. The conference, which was held at the direction of His Excellency the Life President, Ngwazi Dr. H. Kamuzu Banda, gave educationalists and members of the general public an opportunity to review progress in the field of education over the past 50 years. The general feeling was that there had been a lowering of standards in recent years and that there was urgent need to remedy the situation. People were rather sceptical of some of the new methods of teaching, especially those that curtailed the influence of the teacher in a classroom situation. The conference concluded that the teacher should continue to play an important role in the classroom. If it is accepted that learning involves

the mastery of subject matter or specific skills, then the teacher's task is to issue clear instructions relevant to the learning situation and to ensure that his teaching is thorough.

As a result of the recommendations made at the Education Conference, teacher training colleges have had to review some of their programmes. The emphasis has been on the refinement of teaching methods. Students are given clear instructions on how to handle different types of material in the classroom. It is impressed upon them that effective teaching is a result of thorough preparation.

In-service Courses

(a) Primary School teachers Courses for primary school teachers are organized either by District Inspectors of Schools or by Teacher Training Colleges. Such courses are meant to help teachers understand new syllabuses. Ways of teaching the new material are explained and teachers are advised on how to make and use apparatus. In some cases, teachers may help in the writing of a teacher's guide.

(b) Secondary School teachers The Ministry of Education organises courses for these teachers through the Malawi Certificate of Education subject syllabus committees. As in the case of primary school teachers courses are meant to be an orientation to new syllabuses, books and materials.

Upgrading: (a) A diploma teacher may, if he qualifies, be selected to do a two-year course in education and be awarded a B. Ed.

(b) A T2 teacher may, after attending an approved course of training, and provided a vacancy exists in the establishment, be promoted to a diploma status. Alternatively he may, if he qualified, join the university for a degree.

(c) A T4 teacher may be upgraded to T2 under the following conditions. He must pass Junior Certificate examinations and then follow a correspondence course offered by the Malawi Correspondence College. At the successful completion of this correspondence course he is required to attend a residential course at one of the colleges, where college tutors give him face to face tuition. If his assessment is satisfactory, he is awarded a T3 certificate.

A similar pattern is followed by a T3 teacher wishing to be upgrade to T2 but instead of Junior Certificate, he is required to obtain four General Certificate of Education, ordinary level passes including English before he enrolls for the correspondence course.

TEACHER EDUCATION IN MALAYSIA

Pre-Service Training

Integration of Primary and Lower Secondary Teacher Training Courses

1. Situation Prior to Integration

In accordance with the principles laid down in the Report of the Education Committee of 1956, (the Razak Report) the Ministry of Education established separate programmes for the training of Primary and Lower Secondary school teachers.

Such a separation was justifiable on circumstantial and administrative grounds considering the distinct demarcation of opportunities for Primary and Lower Secondary schooling available during the early years of independence.

Only 30% of Primary school leavers were selected for lower secondary education during the early period. Consequently the minimum entry qualification into the comparatively larger number of Primary teacher training centres/colleges could not then be raised higher than that of the Lower Certificate of Education (Form III) level, while that for the Lower Secondary Teacher Training Colleges was fixed at the School Certificate and in a number of special courses at the Higher School Certificate level.

Taken in its historical perspective, raising the minimum academic qualification of Primary teacher trainees from a mere Standard VI Primary School Certificate to the Lower Certificate of Education was a big step in narrowing the gap between the quality of our Primary and Secondary school teachers.

However, Secondary teacher training colleges as a whole were staffed with better qualified trainers, enjoyed better facilities and were accorded a higher status and recognition than Primary teacher training centres/colleges.

In Primary teacher training institutions, students were trained as general purpose teachers. In Secondary training colleges students were trained more intensively and extensively in two main teaching subjects.

Although the same core/professional subjects were incorporated in both types of training programmes viz. Education, Physical and Health Education, Language Studies and Methodology, the syllabuses for each subject differed in breadth and depth of content and treatment. The number of hours and the weightage assigned to each subject also differed.

In general the Primary teacher trainee had his efforts spread thin in trying to master content and methodology of a range of subjects while his Secondary college counterpart studied in greater depth around two Lower Secondary school subjects.

The Secondary teacher trainee's curriculum provided for more academic upgrading and enrichment in specific subject areas, in many cases preparing him for higher academic examinations such as the Higher School Certificate or University's Intermediate Level examinations. A fair percentage of our Secondary college products gained admission into Universities and eventually became Graduate Teachers.

Such a system coupled with the higher salary scale accorded to our Secondary college products developed a stigma of social and educational inferiority against our Primary teacher training institutions and Primary school teachers.

2. Towards an Integrated Training Programme

Report of the Education Committee, 1957. With independence in 1957, the policy of the Ministry of Education as enunciated in the Report was to try to co-ordinate the different training courses to produce teachers with comparable qualifications and quality of training through a common pattern of training, for service in all government and government aided schools.

Report of the Education Review Committee, 1960, (the Rahman Talib Report). The Committee recommended raising the school leaving age to 15 years by the establishment of a new type of Post Primary school known as "Continuation Schools" for the 70% of Primary School leavers who failed to gain entry into the Academic Secondary Schools.

Abolishment of the Malayan Secondary Schools Entrance Examination in 1964, the introduction of the Comprehensive System of Lower Secondary Education and extension of the automatic promotion system through the first three years of Secondary education in 1965 increased the period for universal education from 6 years to 9 years.

The resultant 9-year basic school education programme in the nation's education system emphasises the continuous process of educational growth and the removal of artificially created barriers between Primary and Lower Secondary schools.

These developments in the national education system favoured an integrated Primary and Lower Secondary teacher training programmes.

Expert Committee on Teacher Education. The Director-General of UNESCO convened a meeting of the Committee in Paris on 4th - 5th December, 1967. The Committee while pointing out the vital importance of professional studies in teacher education, recommended that an urgent review of practices and needs in this field be sponsored by UNESCO as part of its recommended review of teacher-education programme as a whole.

The Regional Meeting of Teacher Educators in Asia held at the Asian Institute for Teacher Educators Quezon City, the Philippines 23rd September - 3rd October, 1969 among other things noted the growing trend in the Asian region of considering the entire period of schooling as one continuous unit. The artificial division of the school programme into Primary and Secondary is being gradually discarded. This will in future, eliminate the classification of teachers into two types: Primary and Secondary; and result in unifying the teaching profession. Hence, the need for a common teacher education programme to cover both Primary and Secondary school teachers together.

The Royal Commission on the Teaching Services, West Malaysia 1971 (the Aziz Commission) recorded that the supply of teachers with full Secondary School Certificate has now exceeded the demand and therefore recommended that the minimum qualifications required of Academic Primary and Lower Secondary school teachers be a School Certificate plus professional training in a teacher training institution. These teachers are to be placed on the same salary scale irrespective of the level of schooling they are assigned to teach.

The National Seminar on Curriculum Development in Teacher Education held in Penang, Malaysia, 3rd - 6th December, 1970 agreed in principle to the trend in other parts of Asia to integrate Primary and Secondary teacher training courses.

In March 1971 a committee set up to study policy matters embodied in the report of the national seminar spelt out the rationale, nature and scope and the implications of introducing an integrated Primary and Lower Secondary teacher training programme in the Ministry of Education's teacher training institutions.

In 1972, the Teacher Training Courses of Studies Review Committee, a working committee responsible to the Teacher Training Policy Review Committee drafted a scheme to effect an integration of Primary and Lower Secondary teacher training courses.

The draft scheme was subjected to a series of discussions, processed and modified by various academic and professional committees at the Ministerial and the training college levels, and its final revised form accepted and approved for implementation beginning with the 1973 intake of trainees in all West Malaysian teacher training institutions offering two-year basic teacher training courses.

3. The Proposed Scheme

During the first year, all student-teachers will follow a common broad based programme geared to teaching the middle level of the basic 9-year school education programme in the nation's education system. This middle level covers roughly Standards IV through Form I, with exposure to Remove Class work.

During their second year of training, student-teachers will be selected to specialize in either -

- (i) the Early Childhood level comprising the Lower Primary grades including exposure to Pre-school Education.
- (ii) The Early Adolescent level comprising Remove Classes, Forms II and III.

The proposed scheme will thereby produce two groups of teachers -

- (i) Group A; able to teach from Standard I through Form I
- (ii) Group B; able to teach from Standard 4 through Form III.

Courses of studies under the proposed scheme are grouped as follows -

- (i) Professional Education Courses: Education, Audio-Visual Education; Library Utilization and Management; Civics.
- (ii) Language Proficiency Courses.
- (iii) School Subject Courses.
- (iv) Co-curricular Activities, including Community Service Activities.
- (v) Practical Teaching.

Changes to the existing training programmes incorporated in the proposed scheme are :-

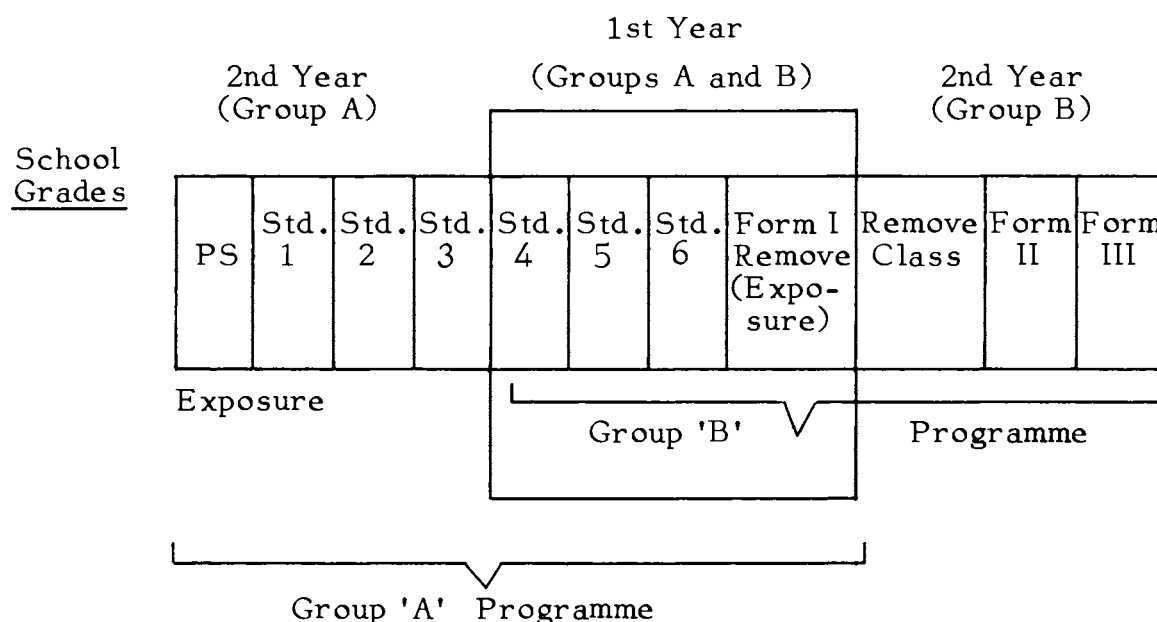
- (i) The introduction of a two-year common Personal Enrichment Course in Civics in line with the recommendations of the "Review Committee on Aims and Objectives of Teacher Training."
- (ii) Basic language courses aimed at developing proficiency in the Malaysian Language and English.
- (iii) The academic content courses will focus on topics in the relevant school syllabuses and discussions on various approaches/methods in teaching the topics. Enrichment and upgrading of students' knowledge of the content of the academic subjects will be through an increase in the breadth and depth of their knowledge pertaining to topics in the school syllabuses not through additions of further topics to syllabuses in line with syllabuses for higher examinations such as the H.S.C. or Universities' Intermediate Level examinations.
- (iv) Students will have practice teaching in both Primary and Lower Secondary Schools.

- (v) Students are required to participate actively in one uniformed youth movement throughout their training and develop the necessary knowledge and ability to assist with the organization of the movement.
- (vi) Students are also to participate actively in at least one organised game and a club/society, per year and learn to organise the game and club/society.
- (vii) Students will receive guidance in the organization of community services and be involved in practical welfare and social services to the underprivileged during their training.
- (viii) A course in library management and utilization for all students.

A modification of this scheme supplies to the training of teachers of Islamic Studies, Commerce, Industrial Arts and Agricultural Science.

The proposed scheme does not deal with the training of teachers for Secondary Vocational Schools.

Proposed Scheme for an Integrated Two-Year Basic Teacher Training Programme



<u>Year of Schooling</u>	-	1	2	3	4	5	6	7	8 or 9	9 or 10
<u>Age</u>	5	6	7	8	9	10	11	12	13 or 14	14 or 15

In-Service Training Courses

The Teaching of Mathematics and Science

1. In keeping abreast with the curricula changes taking place in the teaching of Science and Mathematics, Malaysia is actively involved in curricula changes affecting both the Primary and Secondary schools.

A scheme for re-training of Mathematics and Science Teachers has been effected to meet the changes.

2. Primary Level

A programme to up-grade and enrich the teaching of Mathematics and Science in Primary Schools especially those in rural areas was initiated in 1968. This programme known as the Special Project is committed to the following activities:

- (a) To write and distribute guidesheets on the teaching of primary mathematics and science using the discovery method.
- (b) To provide in-service training at state levels to teachers using the guidesheets in order to ensure that the teachers fully understand the rationale and the methodology stipulated in the guidesheets.
- (c) To establish communication between the centre and the teachers in the classroom and to collect and collate feedback materials and to evaluate the extent of the behavioural changes achieved in the teachers and pupils.

Guidesheets for the teaching of Mathematics and Science in Malay have been prepared printed and despatched to teachers covering about 5,000 classrooms.

In-service courses in the proper use of the guidesheets have been conducted systematically at the national, state and district levels. The implementation of this plan has also meant the creation of 'Centres of excellence' and the training of 'Key Personnel'. They in turn will spread the training and guidance work in these subjects to other teachers at the ground level.

Besides the in-service courses for teachers, there have been seminars and workshop sessions for lecturers from Primary Teacher Training Colleges, members of the Federal Inspectorate and representatives from the State Education Offices.

The writers, members of the Federal Inspectorate as well as the organisers from the State Education Offices have been making regular visits to the schools making use of the guidesheets in order to evaluate progress from time to time.

3. Lower Secondary Level

Malaysia has introduced Integrated Science and Modern Mathematics courses on trial basis in its Lower Secondary Schools.

Integrated Science which has its origins in Scotland has been modified to the Malaysian needs. Besides modification attempts are being made to add new material to the existing course.

Integration of Physics, Chemistry and Biology and presentation as a theme is a new idea in this country. Further, the course lays a heavy emphasis on practical work guided by worksheets. Hence, greater responsibilities and a more fundamental approach in teaching methods are required of the teacher. Consequently, the Ministry is embarked on a major undertaking of giving an in-service course to teachers in the trial schools.

The emphasis on practical work has also created demands on schools for science equipment hitherto not used by the schools. A programme of phased purchasing of equipment and considerable innovation and substitution of equipment is in progress.

A newsletter is also circulated whereby teachers have an opportunity of exchanging ideas. In addition, it stresses teaching techniques in keeping with the objectives of the syllabus and attempts to impart a deeper understanding of scientific principles.

The introduction of this new syllabus, and its stress on practical work has made it necessary to give a training to the laboratory attendants/assistants. Besides the general procedures and safety measures in laboratories, they are also given training in making cheap apparatus and to complement the work of the teacher.

At present 240 schools are trying out the new syllabus in Forms I - III. First group of 22 schools will be sitting for their terminal examination after three years work in this new course. Pupils from these schools will be sitting for a special paper of objective type of questions in keeping with the objectives of the course.

Personal visits, group discussions with the practising teachers and the 'feed-back' received from the teachers give an impression that the course has gone down well. The pupils' participations in practical work are most encouraging.

The curricular activities in Mathematics at this level has kept pace with similar activities in Science. In 1969, a committee was set up to consider a new syllabus in the light of changes taking place. It produced a syllabus, largely influenced by the work of the Scottish Mathematics Group, which aims to provide a useful experience of Mathematics for those pupils who will terminate their studies at the lower secondary level. At the same time it attempts to lay a strong foundation for the future needs of the pupils in the Upper Secondary school.

About 75 trial schools are attempting this new syllabus, and teachers from these schools are given in-service courses

where the following philosophy is stressed:

- (i) Be practical, because pupils learn best from things which they do themselves;
- (ii) Be relevant to students experience so that mathematics become a real study of the real world;
- (iii) Make it enjoyable and encourage investigation and discovery methods so that the pupils acquire an interest in and not develop fear of Mathematics;
- (iv) Be progressive by relating new results to old ones by reasoning processes which are appropriate to pupils' age and ability.
- (v) Use modern content where this fits in with the first four requirements.
- (vi) Be both corrective of impoverished experiences and be adaptive to the variety of ability.

Pupils' books based on the new syllabus and adapted from Scottish materials have been published for the first two years both in English and Malay. Teachers have been provided with guide notes, reference books, apparatus lists, specimen examination questions etc. There have been visits to schools and meetings at state levels to solve common problems and to evaluate the success of the programme. Attempts are also being made to inform and involve more and more 'key personnels' at various levels through circulars, seminars and visits to the trial schools.

4. Upper Secondary Level

The changes in the Lower Secondary Science has made it necessary to make changes at the Upper Secondary level. Since 1968, local officers together with the tutors, from U.K. under C.E.D.O. aid has been preparing Malaysian Courses for Physics, Chemistry and Biology based on the Nuffield 'O' level courses.

Through 'exposure' in-service courses in Nuffield Science 'writing sessions' and practical work, the trial materials are being prepared for Form IV and V pupils. The trial materials for Form IV in the form of Teachers' Guides and Pupils' Workbooks for Physics, Chemistry and Biology have been published. Form V materials are under preparation.

The exposure in-service courses are conducted with the aim of familiarising our Upper Secondary science teachers with the Nuffield philosophy and approach and the suitability of the material for Malaysian Schools. The experience gained has been the basis for planning and producing a balanced course for two years which forms a natural extension to the course at the Lower Secondary level.

The introduction of the new courses has also made it necessary to prepare a new list of apparatus of trial schools. Other supporting activities has involved research on the suitability of the local biological material that can be used in these courses.

5. Other Activities

Besides activities in curricula changes the Ministry has been actively encouraging out-of-school science activities through science exhibitions at school, district and state levels. With the co-operation of the private sector, the Ministry of Education organised a National Science Exhibition for the second successive year.

Health and Nutrition Education

1. Health defined by the World Health Organization "is a state of complete physical, mental and social well-being and not merely absence of disease or infirmity".
2. Based mainly on the above concept, the Ministry of Education emphasises School Health and Health Education. For this it undertakes various activities on its own, and in collaboration with other governmental, private and voluntary agencies.
3. Health Education today is a far cry from the Hygiene and Physiology of yesterday. Today we not only develop knowledge but also attitude and practice. Therefore we look into not only class-room teaching (Pedgogical Approach) but also out of classroom activities (Non-Pedagogical Approach). What the children learn in the classroom is related to their experience from the environment, as well as the health and nutritional services provided through inter-departmental activities.
4. Teacher preparation for School Health and Health Education is a very important activity. The pre-service syllabuses in Health and Physical Education were revised in 1970 and reviewed in 1972, as part of overall revision of the Ministry of Education's Teacher Training Curriculum.
5. Preliminary for teachers in-service were started in 1970 and up to date 500 "key personnels" have been trained. Another 400 will be trained this year.
6. Preliminary courses for ground level teachers will be conducted this year for about 1,000 personnels.
7. A Health and Nutrition Education Centre has been established in a rural township to train "key personnels" as specialists.
8. Educationists are also being trained overseas as Specialists in School Health and Health and Nutrition Education.

PRE-SCHOOL EDUCATION

1. The Ministry of Education does not provide pre-school education in the national school education system.

2. In January 1972 the Malaysian Parliament passed an amendment to the Education Act 1961 to grant the Government through the Ministry of Education some control over private kindergartens in the country.
3. The amendment is to enable rules or regulations to be made to control, supervise and regulate kindergartens.
4. The Ministry of Education has initiated steps to provide guidance and supervisory services to kindergartens at state level.
5. Specialists in Pre-School Education are being trained, and a Guide Book for Kindergartens prepared.
6. A one year full time Supplementary Course in Early Childhood Education for serving teachers and training college lecturers was started in 1972. Thirty personnels received training in 1972 and a second group of thirty will be trained this year.
7. Pending the availability of fellowships a small number of educationists will be sent for higher level specialist courses in Pre-School Education abroad.

TEACHER EDUCATION IN MALTA

Malta is in the process of re-organising its teacher-training but it is too early to define the lines on which re-organisation will take place since the Working Committee responsible for working out plans has been set up only very recently. Re-organisaion has been made necessary by the cumulative effect of the following:

- i) lack of planning as regards teacher supplies and teacher specialisation, with the result that the two training colleges have turned out too many primary teachers and not enough secondary school teachers;
- ii) selection procedures for entry into College which took little account of the specialised needs of the secondary schools;
- iii) a sharp drop in the birthrate with the result that between 1970 and 1980 there will be 18,000 children less between the ages of 5 and 16;
- iv) a very rapid expansion in secondary schools. Secondary education for all was introduced three years ago. This has meant a reduction of the compulsory (five years of age to eleven) primary school course from eight years to six, and the introduction of a five year Secondary School course for all, with the compulsory school leaving age at 14 to be raised to sixteen within the next three years. Though a number of primary teachers were redeployed in secondary schools, there are still a considerable number of redundant teachers in primary schools. At the same time needs of secondary schools in certain subjects could not be met. The needs of the Secondary Schools will continue to expand up to 1975, after which there will be a drop in the teacher requirements. If the need for secondary teachers in 1975 is fully satisfied and if there is no expansion in upper secondary there will be a considerable number of redundant secondary teachers in 1976;
- v) lack of provision for training teachers of technical subjects linked with rapid expansion in technical and vocational education;
- vi) the change in bias from pre-service to in-service training;
- vii) the rapid social changes that have taken place in Malta in the last few years. While 25 years ago, co-educational Training Colleges were unacceptable, non-residential, co-educational teacher training would be fully accepted now;
- viii) the small scale of Malta and the small numbers of teachers required. The Education Department administers about 110 primary schools with a pupil population of around 26,000, 38 secondary schools, 1 upper secondary school, 2 Technical Institutes and 2 Trade Schools with a student population which will stabilize around 24,000 in 1976. The maximum teacher complement is around 3,000 with a wastage rate of around 150 teachers a year, mostly due to the fact that female teachers must resign on marriage. With a maximum replacement rate of 150 teachers, two training-colleges is one too many, especially as facilities at the University have not been fully explored.

Present situation

There are two residential teachers' Colleges in Malta - one for females and one for males. The one for females is owned and run by the nuns of the Order of the Sacred Heart on contract with Government. Up to two years ago it had an output of 120 female teachers a year, mostly for primary schools. Two years ago the intake was reduced to 100 and last year to 80. There has been no intake this year.

The one for males is owned by Government but it is run by the De La Salle Brothers on contract with Government. Up to two years ago it had an output of 60 male teachers a year, mostly for the primary schools. In the last two years the intake was reduced to 30 and there was no intake this year.

Both Colleges have a number of teachers seconded to them as full-time and part-time lecturers, and both have organised a number of in-service courses.

Last year the courses at both Colleges were extended by one year to three years.

Intake into both Colleges is regulated by the Public Service Commission since successful students are assured of a post in Government Schools as soon as a vacancy arises. Attendance at both Colleges is free and students receive an allowance.

The courses followed are adaptations of those set by the London Institute of Education which provides external examiners in the professional subjects.

(i) The following decisions have already been taken and the Working Committee has to work on the basis of these decisions:

- (a) teacher training will no longer be operated under contract with any external body; it will be organised and run by newly appointed officials in the Department of Education;
- (b) teacher training will take place in a single institution;
- (c) the new institution will be non-residential;
- (d) with the exception of the Principal and a limited number of lecturers, the main body of lecturing staff will consist of part-time lecturers who will generally be serving teachers, sharing their time in class teaching, teacher training and research work.

It is felt that the new institutional set up, even if known, will not be of general interest and remarks will be limited to the curriculum aspect of innovation.

- (ii) (a) In the case of pre-service training for non-graduates the Working Committee will have to take into consideration the need to redeploy teachers from primary schools to secondary schools and to devise a flexible course to facilitate this.

Consideration has to be given to the amount of 'basic' courses all

students will take as well as to the length and location of the teaching practice. It has been suggested that as much as possible methodology should be covered in the classrooms and that teaching practice should be as long as possible and under the supervision of tutor teachers who will be responsible for a very limited number of students in their school. In the first year all students will do teaching practice in primary schools, in the second year they will do teaching practice in secondary schools/technical schools and in their final year they will do it in a primary or secondary school or technical schools according to their own choice. The 'bias' in teaching practice will also be linked up with a bias in educational psychology (Child Development).

All students will cover courses from a general group of subjects (both professional and academic though there should be no sharp borderline between these) preferable on a system of units or credit points. Certain units would be compulsory for obtaining the Certificate, others not.

Each student will also take a special subject at a high enough standard to enable him to teach it up to top classes in secondary schools. The possibility of linking this aspect of the course with courses covered at the University or the Malta College of Arts, Science and Technology will be explored.

(b) For graduates who want to become teachers, the course will be shorter and will concentrate on teaching practice and the professional subjects with a limited amount of compulsory units from other general or cultural subjects and activities.

(c) In-service courses will offer special difficulties since purposes of these courses might be grouped under three main headings:

i) those intended to help up-grade teacher from primary schools to secondary schools;

ii) those intended to help teachers fill in gaps in the knowledge of the subject they teach. This type of course has a heavy overlap with the previous one;

(d) In-service courses will be one of the main functions of the new institution. These courses might be grouped under the main headings:

i) those intended to help up-grade teachers from primary schools to secondary schools;

ii) those intended to help teachers fill in gaps in the knowledge of the subject they teach. This type of course has a heavy overlap with the previous one;

iii) those intended to bring teachers up to date with recent developments in teaching. Perhaps the best approach to this kind of in-service training is the one of involving the teachers concerned in appropriate research work.

Steps are being taken to initiate and encourage the setting up of Teachers' Centres to supplement the work of in-service training done by the College of Education. These Centres will offer teachers better opportunities to meet, to discuss common problems, to establish working groups in curriculum development and also to conduct specific research work.

TEACHER EDUCATION IN MAURITIUS

Up to now Mauritius has catered for the Primary School level only in respect of Teacher Education. There is one Teacher Education College providing for a yearly intake of some 275 general purpose teachers and some 100 teachers of Oriental Languages. The minimum entry qualification for course (a) general purpose teacher is:

a Cambridge School Certificate with at least a credit pass in English, French and Mathematics - or an equivalent General Certificate of Education in five subjects including English, French and Mathematics.

The course is spread over two years, alternate terms of a three term year being spent in college and in schools. The theory side is done in college and the practical side in schools under supervision of College Tutors. This is a change from a previous one year in college one year in schools pattern. The alternating of theory and practice proves a more effective form of teacher education though with the rather large incidence of teachers on leave of some sort it has not always been possible to attach students to cooperating teachers and thus ensure a balance of observation and actual teaching practice.

There are, however, two demonstration schools attached to the Teacher College where students may have the equivalent of teaching laboratory situations and learn the habit of self-criticism under guidance of college staff.

There is no equipment for micro teaching. Short refresher courses are also organised by the college for the upgrading of teachers in Modern Mathematics and Elementary Science and also for the introduction of new text books on the syllabus.

The college is now using language laboratory facilities for the improvement of student language skills in English and French - and also on short refresher courses for teachers.

The short courses are now supplemented with vacation courses in specific subjects such as English, Mathematics, and Elementary Science. The emphasis is now being laid on training trainers. These courses are normally of 3 weeks duration.

There are regional sessions organised jointly by the Inspectorate and the College Staff whenever new books are introduced. These cater for teachers in charge of classes where the books are to be used. Radio and T.V. lessons, teacher orientated, are made to top these arrangements, and handouts and guide sheets are given to the teachers concerned.

Pilot projects under the joint care of the college and the Inspectorate operate before the introduction of new text books and new approaches - e.g. Elementary Science and the shift from Geography to Environmental Studies in Lower Primary.

Students and teachers are not at the moment given anything on testing and evaluation so that much is left to chance. There is now a serious demand for the training of teachers especially for the pre-primary stage.

Apart from a course organised for them in 1972, the opportunity is provided for them to follow classes at Primary Schools in their neighbourhood; and the services of one Inspector in particular, and of the other inspectors in general, are available for consultation and guidance. Nothing very systematic has been possible up to now in that field, but relations are maintained to keep the door open for more organised action in the future.

(b) For the Oriental Language Students the minimum qualification for admission to college is 4 subjects at School Certificate level including the Oriental Language and English/English Literature.

Qualifications awarded by recognised overseas or local bodies in the respective languages e.g. Hindi, Urdu, Tamil, Telegu and Marathi are also accepted.

All students must have a working knowledge of English. In college while the bulk of their training concentrates on the language - these students will teach at Primary School - they are now also given an allround training in Mathematics, Geography and other aspects of the Primary School curriculum, including Physical Education, Health Education, Arts and Crafts and Music.

Vacation courses provide training for the teaching of specific subjects e.g. Modern Mathematics. The Secondary Level will be provided for by the Institute of Education which is currently being set up in Redit to deal with Secondary Teacher Education at 3 levels:

- i. graduate
- ii. non-graduate
- iii. technical and vocational

This Institute of Education will incorporate the present Teachers' Education College, and will include an Audio-Visual Section, a Curriculum Research and Reform Section, an Examinations Centre etc. Plans for the Institute are now being drawn up by the Project Manager designate provided by Unesco and financed by UNDP.

TEACHER EDUCATION IN NEW ZEALAND

Changes to primary teacher training programmes in New Zealand in recent years need to be seen in the context of translation from two year to three year training. The longer course has in itself been an innovation and has required review and re-design of existing programmes. Major reviews of secondary teacher training have also been undertaken in an effort to provide more effective programmes geared to the changing needs of secondary schools. Brief outlines of current innovations follow:

Learning through Different Teaching Styles

To combat the problems associated with teaching large groups, variations in course presentation have been introduced. A choice is offered students of one of the following learning styles:

- (a) a course with emphasis on formal lecture style and in which the students experience a passive learning role;
- (b) a course offering an emphasis towards group discussion rather than lecturing or individual work;
- (c) a course offering learning through individual study and research with lectures adopting a consultative role.

Aside from the advantage of offering choices to students we have found lecturers benefit from the opportunity to teach in a style of their choice.

Developing individual learning capability

A student's individual learning skills are developed by offering 'learning packs' which serve as study guides. In this way a lecturer offers a course of study as a written prescription with closely detailed instructions for associated study. Students work through the guides with freedom to pursue individual interest and with an invitation to call for lectures or seminars as they see the need. The lecturer adopts a strong guidance role and builds in set lectures or tutorials as required. The emphasis is on sharing and learning together.

A progression of teaching skills

There is a need to relate education courses to the curriculum studies teaching in other departments in a college. In response to this, an education department has critically examined its own courses, taking account of the arguments in current educational literature that education programmes in teacher training institutions are too heavily weighted to theory and require re-structuring to include emphasis on the development of teaching skills.

Accordingly, a progression of teaching skills has been developed that is closely linked with general education studies. The progression, which is developed over the three year course, is designed to:

- (a) form a teaching skills pattern to which other departments can refer in planning their own teaching programmes;

- (b) form a set of minimum performances in teaching skills to be generally expected of students on various school practice teaching sections. (Headteachers and teachers were invited into the planning of the progression and now share in its operation);
- (c) provide a set of criteria by which staff, students and teachers may judge teaching effectiveness.

It is hoped to develop the value of this programme by studies in interaction analysis and other means of examining teaching performance.

Research

Approval has recently been given for teachers' colleges to undertake approved research projects related to their own work and the work of the schools. Lecturing staff undertaking such approved research may be replaced by relieving staff for a term or up to one year. Many studies are already in hand and two have been approved for additional staffing, one in the field of reading disability.

Teachers' college and schools liaison

A strong feature of New Zealand teacher training has been the close liaison developed between the teachers' colleges and the schools. In recent years colleges have developed even closer links with those schools where students gain practical teaching experience. Small teams of lecturing staff now work closely with teachers in 3 or 4 "associate" schools. Follow-up sessions with teachers and students evaluate student progress, and the appropriateness of the work undertaken by students. Closer links have also been developed between the professional studies taught in the college, and classroom teaching practice requirements.

Selection procedures for entrants to teacher training

Large numbers of students are now offering themselves for preparation as primary teachers and it is desirable that more refined selection procedures are developed. To this end, some groups of applicants are asked to undergo extended selection procedures in addition to the normal interview. These additional selection procedures include:

- (a) a teaching experience with a group of infants;
- (b) a one-to-one interview with an interviewer not on the original panel;
- (c) a written response to a film sequence depicting a teaching situation.

The applicant's success in dealing with these three situations is carefully evaluated and assessments given for each element, as well as an overall assessment. It is intended to carry out follow-up studies during the college course and in subsequent teaching.

Closed circuit television and the use of video-tape

A pilot scheme to assess the usefulness of closed circuit television

and video-tape recording equipment in teacher training has been developed in one teachers' college. The equipment provided includes two C.C.T.V. cameras and monitors for viewing teaching situations developed in a modest studio; and a mobile video-tape recording van equipped with two cameras and two video-tape recorders. This equipment has been used in the following ways:

- (a) As illustrative material for use in lecture programmes;
- (b) Closed Circuit Viewing: This has been found particularly useful in the Department of Special Education, where it is possible to demonstrate live, specific remedial techniques with deaf children and for speech correction, the demonstration of psychological and audiological tests, and interviews with parents;
- (c) Immediate Feedback: Probably the most important use video has been to provide an immediate feedback of students' performance. This has been particularly useful in micro-teaching, gymnastics, music, language, etc.
- (d) Testing and Evaluation
- (e) Conversion of Tape to Film: For long term storage of taped material and for easier sharing with others, taped material can be transferred to 16 mm film.

It is proposed that all colleges will in the first instance have available for their use the same range of equipment along with one or two portable video-tape recorders. The equipment provided for the pilot scheme has proved suitable for work in teacher training.

Teachers' College - university links

Students in training for teaching have traditionally been encouraged to undertake concurrent university studies. Those who are successful in their first year may be awarded full time university studentships. In that way a number of students complete the course of training with a college diploma and a university degree.

Two teachers' colleges have developed close associations with the adjacent universities by becoming part of the university's school of education and preparing students in college courses for university diploma and degree examinations. Teachers' college lecturing staff involved in the courses work closely with university staff in designing the course and setting examinations.

Minority group culture and language studies

All colleges have recently introduced compulsory courses concerned with the culture, language, and the social and educational needs of New Zealand's main minority group. Maori language lecturers have been appointed and substantial three year courses are being offered in an effort to increase understanding of cultural difference in a bi-cultural society.

THE TEACHING OF A MINORITY - THE MAORIS OF NEW ZEALAND

People and population

The population of New Zealand comprises two main ethnic groups - a majority who are Caucasian, most of whom have emigrated from the United Kingdom since the country was first settled in the early 19th century, and a minority who are Polynesians, known as Maoris, who occupied the country at the time European colonisation began. At the latest census Maoris numbered 227,400 out of New Zealand's total population of 2,861,900, a proportion of Maoris in the total population of about 8.4 per cent. Between 1966-1971 the percentage increase of the Maoris was twice that of the total population. About fifty per cent of the Maori population are under 15 years of age which means that there is a low death rate, and a high birth rate. By the end of the century it is estimated that about 15 per cent of the total population will be Maoris.

Historical background

New Zealand is a racially integrated society. The British Government at the time of annexation intended that Maoris should not be exploited and that policies of assimilation of the races should be actively developed. A majority of New Zealanders today are in favour of policies which strengthen the integration of the races. This in turn is made easier by the capacity of the Maori people themselves to adapt and to meet the demands placed on them by European society.

Government policies in relation to the Maoris have changed from protective ones to those which are aimed at providing equal opportunity for all. To attain this goal, measures which are unequal, have been employed. Nowhere is this more true than in education where since 1840, when New Zealand was annexed to Britain as a Crown colony, the Government has acknowledged its responsibility for the education of the Maoris. In the first instance grants were made to mission schools, but later Government undertook direct responsibility for setting up a secular school system. Separate schools for Maoris, which did not, however, exclude others, were provided largely because centres of Maori population were separate from centres of European population. Separate Maori schools continued for ninety years, until 1969. These schools operated under different regulations from those provided by local boards for the community at large, had their own staffing arrangements and provided a curriculum aimed at meeting the particular needs of Maori children. The separate Maori schools with their special conditions were a genuine attempt to offer what was considered to be an appropriate education for Maoris.

Over the years that the separate Maori schools existed, many Maori children, however, attended local board schools. In 1928 over 50% of the Maori primary children attending school attended 746 board schools and just under 50% attended 134 Maori and 11 mission schools. In 1969 when Maori schools were transferred to board schools, seven times as many Maoris attended board schools as attended Maori schools. All state financed schools have throughout our history been open to Maori children.

Today, no vestiges of the separate Maori school system remain. Maoris are educated alongside Pakehas* at all levels of the education system, from pre-school to university. The transfer of Maori schools to board control enabled the special kinds of assistance that had previously been available only to pupils at Maori schools, to be extended to all Maori pupils. The effort to provide equal educational opportunity continues but through greatly expanded special measures which are themselves now an integral part of the education system and teacher training programmes.

Current trends

For a number of years two trends concerning Maoris in New Zealand have influenced educational policies. The first is demographic, the upsurge in Maori population altering not only the balance of population between the races but also altering drastically the balance between youth and age in the Maori sector. Between 1955 and 1970 the number of Maori pupils at primary schools doubled and at secondary schools trebled. The second trend is social and economic; a movement towards the towns and cities of young Maori labour unable to support itself adequately on its own lands, and seeking the greater economic opportunities available in urban areas.

These trends have resulted in a greater mixing of the races in the community at large and in all levels of the school system. More and more Maori children have been enrolled and have become a significant minority in schools where previously there were none.

The changes resulting from this increase in Maori population and the movement of Maoris to urban areas, hastened the transfer of Maori schools into the locally controlled elected board system. The rate of Maori population increase and the movement of Maoris to urban areas has continued. This has focussed attention on the need to take special measures within the schools at large to assist Maori children to gain an education which enables them to develop their talent to the full and best fits them to enter fully into life in a bi-cultural society.

Race relations

A broad issue which has also brought the education of Maori children under scrutiny is the highly publicised one of race relations. Many New Zealanders feel that effort and active policies are needed in order to keep race relations in New Zealand in a healthy state. The school system and policies pursued in it to provide for the special needs of minority groups are seen as positive ways of building better attitudes to other races within our own bi-cultural community.

In recent years too, other Polynesians from South Pacific countries have immigrated to New Zealand and form important minorities in our larger cities. In some city schools these Pacific Island Polynesians comprise as much as 80% of a total school roll and require special teaching. In most instances English is for them, a second language and all instruction in New Zealand schools is in English. It is easy in making special provisions for a Maori minority in the school system to associate an allied racial group - the Pacific Island Polynesians - with them and to consider

* Pakeha: a Maori term commonly used to describe a non-Maori.

their needs will be met by provisions being made for Maoris. In fact, their needs may be different and some special provisions are being made for Pacific Islanders.

The self image of the minority group child

An objective which has influenced the nature of the special measures which have been introduced in connection with the teaching of minority groups in New Zealand is that it is essential that a child's self image is enhanced by his knowledge that cultural differences are understood, accepted and respected by all with whom he associates. It is important that the minority group child - in our case the Maori and the Pacific Islander, a few Dutch and some Chinese - should feel personal worth and a sense of identity. For the Maori, indigenous to New Zealand and yet for many years swamped by the introduced culture of the majority, an understanding by the Maori child himself of Maori culture is necessary. It is necessary for the Pakeha too, in order that he might more fully appreciate the history, achievements and values of the Maori. Recent developments have diversified the ways in which elements in the school programme contribute to the achievement of this objective. In particular, a new emphasis is being placed on understanding Maoritanga* and the importance to the Maori of the Maori language. Pakeha teachers and children are being made more aware of the cultural values which form an essential part of the Maori way of life. This is no new development for in the 1930's in Maori schools Maori activities such as arts, crafts, song and dance were encouraged, but usually as occasional studies. Outstanding Maori leaders campaigned through the country to revive in schools and teachers' colleges the knowledge of their traditions. Knowledge of Maori arts has been further supported in more recent years in all schools by the development of handbooks for teachers which inform and encourage the teaching of the appropriate skills. Advisers with special knowledge assist teachers throughout the country, but particularly in areas of greatest concentration of Maori population, to teach Maori arts and crafts. At primary level many of these skills and activities are included in social studies and physical education syllabuses, and are further supported by films, tapes and records of songs, games and dances, so that Pakeha and Maori children may learn that things Maori have significance in their own right and yet are a part of the New Zealander's cultural background.

Maoritanga includes much more than arts and crafts, songs and dances. It is a vital, constantly evolving pattern of living which is of fundamental importance to the Maori people, embracing both their way of life and their view of the universe. Elements of Maoritanga relating to cultural values, history and customs are included in syllabuses in social studies, liberal studies and Maori language studies themselves.

The classroom teacher

In the final analysis it is the attitude of the classroom teacher, the quality of inter-personal relationships in the classroom and school, and the establishment of good working relationships which gain the confidence of pupils and which ultimately foster educational achievement. More important than any other set of factors - size of class - organisation - equipment - and so on is the empathy of the teacher with his pupils, and his

* Maoritanga: an all embracing term for things Maori, including the culture, mores, spirit, language and attitudes or Maoris.

skill in using their strengths to bring about greater motivation and success. Bi-cultural teachers are needed, capable of predicting how a child of another culture perceives and acts in the classroom, who knows well the background of Maori children and is able to draw upon their experiences and culture in the classroom.

Many measures have been taken to inform present teachers about Maoritanga and the values and needs of Maori children and the importance of these for the Pakeha too: in-service courses are available for teachers; an advisory service for teachers in schools with large numbers of Maori pupils; and publications have been produced specifically designed to inform and assist teachers in various aspects of work with Maori children.

Advice on policy

In 1953 a widely representative group which included representatives of the Maori people was brought together to consider Maori education issues. It made a number of important recommendations including the transfer of Maori schools to board control. In 1956 the National Advisory Committee on Maori Education was established directly as a result of the earlier representative meeting and has since been the main machinery for advice to the Minister and the Department of Education. The National Advisory Committee on Maori Education is a continuing body, half of whose members since 1969, have been Maoris. In 1970 it issued a report on Maori Education which forms the basis for present policy developments in Maori education for all levels of education and in its recommendations, charts a course of action for Maori education for the 1970's. Already many of the Committee's 1970 recommendations have been implemented and the benefits of some of the supporting measures are becoming apparent.

In-service training

A network of in-service assistance for teachers is available in the form of some national week long residential courses for selected teachers who are replaced by relieving teachers. One and two day courses are also held locally which are conducted by advisory staff officers who are often practising teachers seconded for this work. From time to time voluntary vacation courses are offered.

In addition to these efforts which are aimed at assisting teachers in particular ways in their work with Maori and Island children, correspondence courses for teachers, offered through the Department of Education's Advanced Courses for Teachers provide opportunities for practising teachers to learn Maori and to learn about teaching children with language difficulties. University degree study of Maori language, as part-time and extra-mural studies as well as full-time studies are also available to teachers who wish to extend their knowledge in this field.

Initial training of teachers

It is in the initial training of teachers that a concentration of effort is being directed. Teachers' colleges have for many years included, in various courses, elements relating to Maoritanga and the needs of Maori children. Usually these have been small sections of broader sociological and educational studies or syllabus studies. One or two colleges have for some years offered optional Maori studies of a substantial nature but these were usually within a Social Studies Department.

All Colleges now offer a compulsory course in Maoritanga of at least 30 hours, for all students, in addition to elements in courses which deal with the particular educational needs of Maori children. The Maoritanga course will ensure that all students know the basic cultural patterns of Maoris and Pacific Islanders, how to pronounce common Maori words, phrases and names and something of the sociological issues which exist in New Zealand. Further, all Colleges will from this year have appointed to the staff a Maori language lecturer who will offer a three year Maori language course as an optional study. Some Colleges will in addition offer three year *Selected Study, Maori Studies Courses. These courses will include a Maori language component but will primarily consist of a study of Maori society and culture in the New Zealand society. From them would emerge a background of knowledge and skills that will develop their appreciation of Maori culture and values and thus assist them to teach effectively in Maori and multi-cultural situations.

A number of teachers' colleges have reported on the value of field studies to rural Maori communities where for a week or more students immerse themselves in Maoritanga, including present issues affecting Maori and Pakeha, by living with a predominantly Maori community and experiencing a Maori marae or meeting place. One teachers' college has involved staff members in a weekend field study of this type.

An extra curricular activity which all teachers' colleges sponsor is a so-called Maori Club, of which Pakehas as well as Maoris are members, where students enjoy opportunities to study crafts, songs, and dances and learn of various aspects of Maori culture and tradition.

Maori language

The opportunity to learn the Maori language is important to Maori people and may provide a deep appreciation of the culture. Opportunities for studying the Maori language have therefore been greatly increased in recent years. In four years the number of Maoris and Pakehas studying Maori in secondary schools has doubled and in the last two years Maori has been introduced into those intermediate schools adjacent to secondary schools where Maori is taught. An Advanced Course for Teachers, a Correspondence Course in Maori language is now available to certificated teachers. All teachers' colleges from 1973 will offer Maori language courses to teachers in training. Most universities offer courses in Maori language and extra-mural degree courses in Maori language are available. Since 1957 under the direction of an Advisory Committee on the Teaching of Maori a comprehensive programme of publications in Maori has been carried out for children studying the language and for teachers of Maori. Measures being taken are also aimed at providing an adequate supply of teachers for what is a growing demand for Maori language courses in the school system. The new place being given Maori language in our society is contributing to the objective of enhancing the self image of the Maori himself and increasing the respect in which he and his culture is held by the Pakeha.

* Selected studies are substantial studies in depth primarily for the student's own general education and personal development but usually related to the school curriculum at certain points. Each student undertakes two selected studies from 9 options offered over the 3 year course and comprising about 200 hours in each selected study in each year.

There are some who believe that all pupils should be compelled to learn Maori. They argue that, since language enshrines the unique spirit of a culture, all Pakeha and Maori New Zealanders must be equipped with a working knowledge of Maori if a proper basis of sympathy and understanding is to develop between them. Against this it can be argued that bilingualism is not necessarily a safeguard against racial disharmony, that the introduction of a compulsory language study could work against a better understanding and though desirable the study of a language is not essential to the building of bridges across cultural gaps. In New Zealand at present in any case, there are not enough teachers of Maori to support such a policy.

All educational policies concerned with teaching the Polynesian minorities in New Zealand are directed towards equipping them to realise their full potential, first of all within the school system and later as effective members of the community. The measures outlined to do this have been primarily concerned with developing knowledge and attitudes in both teachers and children, Maori and Pakeha, regarding cultural differences.

Learning problems of Maori children

A number of other policies are being developed related particularly to learning problems of Polynesian children. To this end an advisory service, working in a day to day relationship with teachers has developed a teachers' handbook which sets down ideas about language programmes for Maori children; again numerous in-service courses are held annually to assist teachers who have pupils with language problems and a book is in preparation for teachers of children for whom English is a second language.

Research

Substantial resources are now being made available to support research effort into the language learning difficulties of Maori children. Research on aspects of Maori education and the needs of Maori children has until recently been in the form of one man studies usually for Honours or doctoral theses. In 1971 approval was given for a Government grant to enable the N.Z. Council for Educational Research to set up a research unit on Maori schooling. Its task is to undertake research into the linguistic abilities of Maori pupils and the characteristic difficulties they may have in developing their competence in spoken and written English. It is hoped that in this way a firm underpinning of research will be given to further projects which assist teachers in developing more effective methods of teaching language to Maori children.

Pre-school education

There is strong support for the view that the early years of childhood are important ones in respect to all aspects of a child's growth and development. There are benefits too of course for parents who participate. Pre-school education may also be a form of adult education. Measures to meet the special needs of Maori and Pacific Island children include a great expansion of pre-school services to enable these children to gain the benefit of pre-school experience. The number of advisers has been increased, increased subsidies have made it easier to establish new kindergartens and play centres and spare rooms in primary schools have been made available in order to start a pre-school group. Pre-school groups within primary schools, under a paid supervisor are being developed where it has not been possible to establish a pre-school group under the voluntary pre-school

arrangements which apply in New Zealand. Supporting and encouraging the development of pre-school education and with its own pre-school advisor, is the Maori Education Foundation established in 1961.

Equal opportunity and special measures

The principle, that in order to provide equal opportunity, vastly unequal measures may need to be taken, has been accepted as a basis for policy making by Government in New Zealand. To ensure that minority group children in New Zealand have an equal opportunity special measures are continuing to be taken. In addition to the provisions already referred to, additional staff may be appointed to schools which have a significant percentage of Maori or Pacific Island pupils; guidance counsellors' appointments are being made first to those schools with special needs including high percentages of Maori or Island children; teachers' aides in primary schools are likewise approved on the basis of the special needs of those schools; special bursaries and grants are available to Maori pupils for university and secondary education.

It is not sufficient in an integrated society to expose minority group children to the equal opportunities which exist expecting that they will be enjoyed in equal degree by majority and minority groups. Many special measures may be required over many years if the full benefits of the education offered are to be realised.

Conclusion

Emerging from our experience with policies of integration and bi-culturalism is the fact that such policies touch a society at every point, whether it be in regard to social attitudes, economic considerations, leisure and cultural activities, or the education system. In education this policy has its expression at all levels from pre-school to tertiary levels and in all its aspects. The effects of this policy may be seen within the curriculum, in the programmes provided for the training of teachers and in the supporting services and special measures which are taken within the education system to provide for equality of educational opportunity for Maori and Island Polynesian children. The objective in the measures taken is the development and maintenance of healthy race relations in New Zealand's bi-cultural society.

TEACHER EDUCATION IN NIGERIA

1. Introduction

Innovative practices in Teacher Education in Nigeria are few and tentative, mostly at the experimental stage. In the last two decades emphasis has been on expansion in order to cope with the phenomenal expansion in primary and secondary education. The practices described here make no claim to originality. Many of them are innovations which have been adopted or adapted from practices in one or another of the Commonwealth countries and the United States. They are largely in the administration of the institutions. Others are in curriculum development, teaching techniques and evaluation. The content of teacher education has been a matter of concern to the Association for Teacher Education in Africa (ATEA) and its two branches, the Western Council and the Eastern. Both Councils have held independent workshops with a view to innovations in the content of teacher education in the countries covered by the Association. The results of the workshops are now awaited.

II. Teacher Education Institutions

Teacher education institutions in Nigeria lend themselves to a variety of classifications. One is according to the certificate or qualification obtainable at the end of the course which is as follows:

<u>Type</u>	<u>No.</u>
(1) Teachers' Grade II Certificate	155
(2) Teachers' Grade I Certificate	3
(3) Nigeria Certificate in Education (NCE)	7
(4) BA/BSc (Education): BEd	Universities 5
(5) Postgraduate Diploma in Education	Universities 4
(6) Higher Degrees in Education	Universities 5

The Grade II institutions are by far the majority and are aimed at producing primary school teachers most urgently required for the maintenance and expansion of primary school education.

The Nigeria Certificate in Education institutions, otherwise known as the Advanced Teachers' Colleges, are few (seven) but their contribution is very important. The students who go into them represent a new breed, better qualified on admission and more competent to absorb new ideas and develop initiative. The University Departments/Faculties, which offer one or more of the courses leading to the Nigeria Certificate in Education, BA/BSc (Education), BEd, the Postgraduate Diploma in Education, and the Higher Degrees, are at present the more important resources of innovative practices. It is the contribution of this last class and the implications for other teacher education institutions that are outlined here.

III. Administrative Practices

(i) An Advanced Teachers' College is linked with a University, usually one in its neighbourhood. The degree of relationship between the two institutions varies but generally ideas which are generated in the University Department/Institute of Education spread to the associate Advanced Teachers' College. In one case, the integration is complete so that the education students are able to share the University facilities and life in common with students in

other disciplines. On the successful completion of the NCE course, a candidate is eligible for consideration for admission to Part II of the relevant BA/BSc (Education) degree course.

(ii) BA/BSc (Education), BEd: The programme leading to the degree of BA/BSc (Education) or BEd offered by every Nigerian university is increasingly appreciated. It brings the students into contact with undergraduates pursuing similar courses in arts or science or pursuing entirely different courses like Law, Medicine, Engineering and others. It provides the opportunity of mixing outside lectures and academic work, at games, sports, debates, social events and activities, all of which enrich the general education of the students and ultimately enhance the status of teachers.

(iii) Sandwich Postgraduate Diploma in Education Programme: A number of University Departments/Institutes of Education run the one-session Diploma in Education course. As an alternative to the full-time course, one of the Universities runs a sandwich course which starts during one vacation and concludes in another with practical work during the interval. This is an innovation which should increase the number of graduate teachers in the teacher education institutions and the secondary schools.

(iv) In the recent past, the Grade II Colleges were the only institutions concerned with primary education. The present trend is that University Department/Institutes are showing keen interest in primary education, not only in research in the field of primary education but by offering in-service courses to primary school teachers, tutors of Grade II Colleges, supervisors and administrators of primary education. The areas of emphasis at the moment are pre-primary and early primary education, language problems, special subjects such as Mathematics and Science.

(v) Practising primary school teachers are encouraged to use the facilities of the various University Departments/Institutes, such as libraries and audio-visual aids centres. There are short courses, spread throughout the year, covering a wide range of topics in primary education.

(vi) Participation by students in the Administration: The students are increasingly involved in decisions affecting their welfare and there is a sufficiently satisfactory response to justify increasing the area of participation. There is under consideration in some of the Universities' proposals that students should participate in the deliberations of Senate, Academic Boards and Boards of Studies.

IV. Curricula, Techniques, etc.

This is an area of intensive activities and a variety of innovations in the different Universities.

(i) Content of School Courses: Content of school courses has been undergoing continual review and changes since Independence and much more so in the last two years. There is active co-operation between the Ministries of Education, Teachers' Associations and the teachers as individuals on the one hand and the Universities on the other. The National Curriculum Conference of 1969 was evidence of team-work by the various bodies mentioned above and the general public in identifying the objectives of school education at the different levels and of teacher education. The Conference was followed up in a series of national curriculum workshops. The syllabuses produced at such workshops are turned over to the various Ministries of Education in the country (thirteen in all) which then adopt or adapt them according to the local circumstances of the States.

(ii) The Comparative Education Study and Adaptation Centre (CESAC):

An example of curriculum development in the Universities is the Comparative Education Study and Adaptation Centre (CESAC), which until recently was a unit of the College of Education of the University of Lagos. The function of the Centre is the construction and revision of curricula and the production of material for trial and use in schools throughout the country. It also serves as a clearing house for curricula in other countries, which are available for the use of teachers. The writing teams for local textbooks are drawn from serving teachers and University lecturers.

(iii) Content of Teacher Education Courses: In addition to the effort of the Africa-wide and Regional Associations, each University Department/Institute is continually reviewing its courses. Common innovations are the integration of the Foundation courses and emphasis on National Development. These ideas are being passed on to the Grade II teachers' colleges.

(iv) Research: There is a wide range of research topics and activities which are relevant to school education at one level or another or geared to the aspirations of the nation or intended to enrich teacher education at the different levels. Further information could be obtained from each University.

(v) Techniques: Innovations are proceeding on the nature and use of audio-visual aids. The Audio-Visual Aids Centre is a feature of every Department/Faculty of Education. Emphasis is on the use of local materials and the making of simple apparatus in preference to the more mechanical and expensive gadgets.

Team teaching and micro teaching as techniques are being tried in one or another of the institutions.

(vi) An innovation of wider application is a course for University lecturers in the methods of teaching. The first course was run with the help of the University of London Institute of Education and it proved very popular.

V. Examinations

Research projects on examinations include selection process, aptitude tests, examination in primary and secondary schools and in teacher education institutions. Trials are being made with the use of course work in addition to written examinations in determining the final performance of students in certain teacher education programmes.

VI. Concluding Remarks

This is only an outline of the existing practices. For details each University Department/Institute would need to be consulted. There are other innovations which are still in the making such as the proposal for correspondence courses for teachers, external degrees in Education, which are well advanced in one of the Universities.

VII. Statistical Information

(i) Federal Ministry of Education: Directory of Post-Primary Education Institutions in Nigeria, 1971, Lagos, Federal Ministry of Information, 1971;

(ii) Federal Ministry of Education: Statistics of Education in Nigeria, 1969, Series II, Vol. II, Lagos, Federal Ministry of Information, 1969.

TEACHER EDUCATION IN PAPUA NEW GUINEA

If innovation is defined as planned change then recent years have encompassed a period of unusually wide ranging innovation, involving fundamental changes in administration and supervision; an upgrading of enrolment levels; consolidation of colleges; a concentrated programme for the development of local staffing; the high priority expansion of in-service education; and moves to develop college curricula in terms of student attitude formation and problem solving ability as well as basic teaching methods and knowledge.

Administration and Supervision

Over the past few years the Department of Education has endeavoured to pass over to Teachers' Colleges a great deal of responsibility for their own professional growth and development. This has been attempted in a number of ways. Foremost has been the establishment under Ordinance of Governing Councils and Boards of Studies. Governing Councils with lay and professional representation have responsibilities for the selection of staff, for the graduation of students and the general oversight of college activities. Boards of Studies, provided they have suitable representation from both within and without the college, are responsible for the analysis of the courses taught and the supervision of the curriculum.

Other action includes the cessation of inspection visits and the institution of advisory visits; the organisation of specialist seminars and workshops; the cessation of annual external examinations and cumulative assessment schemes; and project financing.

Enrolment Levels

In 1973 the enrolment level in "Primary" Teachers' Colleges is running at approximately 60% Form IV. This compares with less than 50% Form IV entry students in 1972 and considerably lower percentages in previous years. The bulk of the trained teachers in Papua New Guinea have had much less than a full Secondary education but an in-service programme is providing opportunities for many teachers to improve their educational and professional qualifications. The anticipated enrolment of Form IV students in 1974 is expected to be 80% or more. However, the percentages in future years will depend upon the rate of expansion of the Primary system and the demand for teachers.

A feature recently has been the number of female students who have entered Teachers' Colleges. Although still less than men the percentage has increased from a quarter to approximately a third. Difficulty is being found in finding accommodation and employment after graduation.

Consolidation of Colleges

The number of colleges in Papua New Guinea is now 10, of which 9 are engaged in the preparation of Primary teachers and one in training Secondary teachers. This number is still too large considering the number of students in training (2,000), but it has been reduced from 16 in the past few years. Further consolidation of colleges will depend upon the future demands for teacher numbers. An expansion of the smaller colleges before new colleges are built is the aim.

Development of Local Staffing

Political developments in Papua New Guinea have accelerated the need to place Papua New Guinea teachers in executive positions.

A paucity of information on the country's 8,500 indigenous teachers has made identification of executive potential a major task. A large number of executive assessment workshops have been run throughout the country and teachers of high executive potential have either been placed directly in executive positions or placed in executive positions following either academic or professional courses or on-the-job training.

A number of Papua New Guinea teachers have been placed in teachers' colleges throughout the country and those placed are all considered to have the potential to rise quickly within the Department. Two selected under the scheme have been placed as Deputy Principal and another as trainee Deputy Principal.

Teachers' College executive trainees are at present undergoing on-the-job training, specialist one year lecturers courses at the Canberra College of Advanced Education, full-time degree studies at the University of Papua New Guinea, one year full-time Diploma in Educational Administration at the University of Papua New Guinea and various other general education courses designed to raise the level of the executive trainee to at least matriculation equivalent.

The In-Service Teachers' College was founded in 1971. It is an institution without buildings, but with a staff of five. Its function is to co-ordinate and rationalise all the in-service training activities conducted by the Department of Education, by guiding the selection of participants and the curriculum for all professional development courses and by maintaining a register of in-service training results.

College Curricula

With the higher educational entry level of students, and with increased uncertainty about the future curriculum of primary and secondary schools, the curriculum of teachers' colleges continues to move to the right on the prescriptive - suggestive continuum. A climate is being encouraged in colleges which will induce students to make far more of their own decisions in their private and professional lives. Improved communication amongst staff of colleges, especially through curriculum workshops, is assisting the professional growth of the institutions.

S.P.A.T.E.

At meetings in Australia in 1971 and 1972, a large group of teacher educators founded the South Pacific Association for Teacher Education. The Association was given a regional orientation - rather than a national (Australian) one - largely in order to facilitate the exchange of professional information amongst Australia and its Pacific and South East Asian neighbours. Papua New Guinea has been actively associated with this endeavour from the beginning.

TEACHER EDUCATION IN SIERRA LEONE

INTRODUCTION

Teacher Education in Sierra Leone has a long history. Fourah Bay College which was founded in 1827 became affiliated to Durham University in 1876 and soon afterwards a Diploma in Education course was added to the curriculum, providing pre-service education for secondary school teachers. The course led to the post-graduate Diploma in Theory and Practice of Teaching (Dip Th. P.T.) of the University of Durham. Later, when the need for professional preparation of primary school teachers became pressing, Fourah Bay started a course for male primary school teachers in 1928. The Wesleyan Methodist Mission stepped in to correct the imbalance when a few years later the Women's Teacher Training College was established for the pre-service education of female primary school teachers. Since then, teacher education programmes have grown to embrace various levels of teaching and to meet some of the needs of the profession.

CURRENT POSITION

In 1970, Government published a White Paper setting out its policy for the development of education at all levels, with the following general aim:

"To provide every child with an education which takes fully into account

- (a) character development
 - (b) his interests, ability and aptitude
 - (c) the manpower needs of the country
 - and (d) the economic resources of the State,
- so that the child's education can be of use to the country and at the same time provide opportunities for him to be successful in life."

The implications for teacher education are obvious and statistics under "Expenditure on Education" in the Appendix to this Paper eloquently speak to the importance Government places on teacher education, the sine qua non of educational development.

LEVELS OF TEACHER EDUCATION

Teacher preparation programme are offered at three levels, at University, Higher Teachers College and Primary Teachers College levels. The Institute of Education of the University and the Ministry of Education also collaborate in pre-service and in-service teachers education activities.

1. UNIVERSITY LEVEL

The two constituent colleges of the University of Sierra Leone, that is Fourah Bay College and Njala University College, provide facilities for pre-service and in-service education for secondary school teachers. The entry requirement is at least two "A" level passes in the General Certificate of Education Examinations.

- (a) Fourah Bay College, through its Department of Education, offers consecutive post-graduate courses leading to the Diploma in Education as well as higher degrees like the Master in Education and the Ph.D. Further, it carries out research in educational problems and helps to improve the quality of education.
- (b) Njala University College was specifically established to offer courses in agriculture and education as a result of Government's conviction of the need and urgency to relate agricultural and educational development to the needs of the country, particularly the rural sector. In August 1963, a contract was signed with USAID by which the University of Illinois provided personnel and equipment to enable the college to carry out these functions.

Njala runs concurrent courses for the following qualifications:

- (i) B.A. in Education
- (ii) B.Sc. in Education
- (iii) B.Sc. in Agricultural Education
- (iv) B.Sc. in Home Economics Education

In addition to these there is provision for Diploma and Higher Teacher Certificate Courses in Home Economics and Agriculture and the courses in the latter are heavily weighted towards crop culture and agronomy.

Units set up to give content and breadth to the teacher education programme include the following:-

- (i) The Science Curriculum Development Centre which provides courses in science methodology for students and is also concerned with the introduction of modern approach to science teaching in primary and secondary schools.
- (ii) The Audio-Visual Centre which provides courses and facilities for education students as well as various departments within the college.
- (iii) The Department of Physical Education.
- (iv) The Department of Teacher Education which co-ordinates courses in educational foundation subjects as well as measurement and evaluation, educational administration and methodology.

Njala University College has also been actively conducting research into all levels of education.

II. HIGHER TEACHERS CERTIFICATE LEVEL

The Milton Margai Teachers College at Goderich near Freetown offers three-year courses leading to the Higher Teachers Certificate which is of two kinds:

- (a) General, qualifying the holder to teach in the lower forms in secondary schools and
- (b) Special, qualifying the holder to teach special subjects in either primary or secondary school e.g. Art, Music and Rural Science.

The minimum qualification for entry is four G.C.E. 'O' passes including English but an "A" level subject is an advantage.

III. TEACHERS CERTIFICATE LEVEL

Primary teacher education is provided in teachers colleges which run three-year courses leading to the Teachers Certificate. As a result of Government's policy of rationalisation and consolidation, three of the four administrative provincial areas now have one residential college each plus one college for women in the Northern Province. In the fourth administrative area, that is the Western area, there is a non-residential college in Freetown which provides a four-year programme for serving teachers who have had no professional preparation.

Minimum requirement for entry is completion of Form IV and a good performance in a qualifying examination in English Language, Mathematics and a General Paper.

The programmes offered in these colleges are diversified to include Home Economics, Nursery and Infant Education and Agricultural Education. Total enrolment in the five colleges in 1972/3 was 1,017. Wastage is reportedly low with drop-out rate of less than 5% and repeaters lower than 1% over the three-year course.

THE INSTITUTE OF EDUCATION

In a move to improve the quality of education, the Institute of Education came into being in 1968. It is governed by a Delegacy, the membership and powers of which are determined by the Court of the University. All professional matters are dealt with by an Academic Board. Among its major functions are the following:

- (i) to co-ordinate the preparation of teachers at all levels;
 - (ii) to organise in-service courses for teachers;
 - (iii) to undertake curriculum revision and development;
 - (iv) to conduct research and provide facilities for research among the teachers colleges;
- (a) The Institute approves courses of studies for pre-service education and is responsible for the proper conduct of examinations leading to the Higher Teachers Certificate and the Teachers Certificate.
 - (b) The Institute has turned its attention to the revision of certain priority subject areas in the secondary school programme. Under the newly formed National Curriculum Committee, Curriculum Sub-Committees in Mathematics, English, Social Studies and Science have been set up and their work is at various levels of progress. For example, trial teaching of the new science programme is currently being carried out in Form One in twelve selected secondary schools.

- (c) Research work is gradually being undertaken and projects initiated so far include
 - (i) drop-out and wastage in schools;
 - (ii) supply and demand of primary school teachers; and
 - (iii) intellectual abilities of children.
- (d) In-service education is one of the most important areas of operation for the Institute and as a result of a preliminary study areas of need have been identified. In the past, in-service education courses have been organised and run by many agencies and bodies virtually independently of one another. The Institute is now working towards facilitating the administration of such courses with the full co-operation of the Senior Inspectors of the Ministry of Education, the Sierra Leone Teachers Union, subject associations and bodies of voluntary overseas services. Proposals for in-service courses for the 1972/3 academic year have been collated and synthesized into a national programme and this is currently being implemented at both secondary and primary levels.

The Teaching Aids Unit of the Ministry of Education also provides enrichment programmes and aids to teaching for secondary and primary schools through its three sections, namely, School Broadcasting, the Publications Branch and the Audio-Visual Centre. There is undoubtedly much to be done in this wide area of teacher education, but there are clear indications that teachers, administrators and all concerned with education are aware of the country's need and are working severally and collectively towards innovative activities that will lead to continued professional growth.

TEACHER EDUCATION IN SINGAPORE

A major development in education in Singapore during the period of rapid political and socio-economic changes after World War II has been the immense expansion of educational facilities to meet the accelerated demand for education. At the same time that the quantitative needs were being met, policies directed at reforming education to suit more adequately the needs of a multi-ethnic and modernising society were adopted. Among the policies implemented were the policy of making the teaching of two languages in school more effective as part of the effort to build a cohesive nation, and the policy giving increased emphasis to the teaching of science, mathematics, and technical subjects to meet the requirements of the industrialisation programme. A more recent innovation is the new primary curriculum which provides for greater flexibility in the teaching-learning process and the more active involvement of pupils through taking into consideration their interests and developmental needs.

The changing demands of the educational system are reflected in the development of the Teachers' Training College, which is currently the only teacher education institution in the country. Established in 1950, the College trained only primary teachers for the English medium schools in its early years. Today it is responsible for the pre-service training of primary and secondary teachers in all the four official language media and for the in-service training of experienced qualified teachers at both the levels. It also prepares graduates for the Diploma in Education, M.Ed and Ph.D in education awarded by the University of Singapore.

In view of the problems of continuing social change and educational demands for the increased general and specialised knowledge and skills of teachers, the teacher education programme of the Teachers' Training College was reviewed and systematically restructured for the 1972/1973 academic session to enable teachers to fit more adequately into the changing society, respond more flexibly to changes taking place in the curriculum and other areas of the school environment, and generally play their part in the improvement of the qualitative aspects of education.

Recent innovations in teacher education: objectives

In the systematic reorganisation of the teacher education programme, the objectives of teacher education were reinterpreted to give stress to (a) providing students with the necessary knowledge and skills to meet the requirements of the changing educational environment, and (b) providing students with courses that would enable them to continue to develop emotionally, intellectually, and socially in order to respond effectively to changes in society. In relation to these objectives, great emphasis is currently placed on (a) fostering an inclination in the students to improve their insights through disciplined inquiry, (b) improving their ability to think creatively and critically, (c) increasing their awareness of community, national, regional, and international issues, and (d) their having competence in such classroom skills as organisation, management, communication, and meaningful use of educational technology. Two important outcomes expected are that the teachers will be willing to attempt to create teaching-learning situations centred on problem-solving, and that they will be able to plan, organise, and implement, either individually or in a team, learning situations embodied in a new curriculum.

Curriculum changes

The new curriculum for the Diploma in Education and the Certificate in Education courses comprises the following fields of study.

(a) Core Course in the Principles and Practice of Education. This course uses an interdisciplinary approach which brings together relevant theories and concepts in the psycho-social and educational disciplines in studies related to classroom teaching and practice. In terms of content, the innovations stress the interplay of theory and practice, which helps to give the course a purposeful relevance making abstractions meaningful; they also stress the interrelatedness of the disciplines in education, in which lecturers from different disciplines work closely together in planning, organising, and teaching in both lecture and tutorial sessions.

(b) Specialist Education Courses. The aim of these courses is to enable students to select two areas of interest for study in depth. Course offerings include Programmed Instruction, Communication in Education with special reference to ETV, Guidance and Counselling, Educational Measurement, the Language Arts, and Psychology of Deviant Behaviour.

(c) Specialist Academic/Professional Courses. (For the Certificate in Education course only). These courses aim either at increasing the knowledge and understanding of students in the academic subjects, such as Art, Geography, History, and Mathematics, in which they may specialise teaching in school, or at giving them competence in how to effectively implement new syllabuses in school. The specialist professional course on English, for example, is designed to get students to acquire knowledge and understanding of the new Primary Syllabus for English, and the skills to implement the instructional objectives contained in it.

(d) Methods Courses. These are related to the specialist academic courses.

(e) Co-curricular Subject Courses. The courses here are designed to develop competencies in the educational service and media fields to enhance the usefulness of the teacher in the school. Students learn to use such resources of educational technology as are available and to involve themselves in the preparation of adequate ways of using such resources. Examples of courses are: Audio Programme Planning Workshop, and Preparation, Selection, and Utilisation of Audio and Visual Instructional Media.

(f) Personal Growth Courses. These courses, which give expression to the objective stressing continuing personal development, aim at cultivating within the individual an appreciation for subjects of aesthetic interest and value, such as ceramics, painting, literature, music and dance.

(g) Language Courses. In line with the State policy of effectively promoting bilingualism, students in the Certificate in Education course have to study two languages: the language of instruction, and another official language other than the students' own language.

Organisation of Teaching Practice

Teaching practice, which is considered an integral part of the teacher education programme, provides opportunities to students to experiment

with teaching techniques and to gain insight into the problems of pupils and classroom management. An expectation here is that their school-based experience will help to provide the focal point for theoretical studies.

In the organisation of teaching practice, a notable innovation is having Diploma students attached to schools throughout their course for two hours per day on four days and one full school day each week. This practice is intended to give them, besides teaching practice, experience in other relevant activities in school.

Another innovation is that students are now attached to the same supervisors throughout their course of training. In this, supervisors are able to work more closely with their students in the planning, 'teaching', and evaluation of lessons and also to observe their progress more adequately.

A related innovation is that the supervisors are grouped in teams and are encouraged to draw on each other's expertise in consultation over problems relating to the teaching performance of their students.

Innovations in evaluation

Assessment of students' performance in the various courses takes on a greater diversity of forms. In a sense, there is less emphasis on the examination as a form of evaluation as all specialist education and methods courses require academic exercises in the form of projects or experiments instead of examinations, and all co-curricular subjects and personal growth courses are rated on the students' progress. The academic exercises, besides helping to minimise examination stress and anxiety, give students the opportunity to demonstrate their skills in data retrieval, the analysis and organisation of information, and its presentation in sustained and reasoned prose.

Admission and course requirements

In its implementation of the programme of improving the quality of teacher education, the College has been more selective in its admission of students for the two main courses, the Certificate in Education for non-graduates and the Diploma in Education for graduates. In addition to the requirement of 'good' academic and other qualifications, applicants have to do well in a language proficiency test which evaluates the ability to communicate orally and in written forms.

In the revised course requirements of the 1972/1973 academic session, the introduction of the 'credit' system and the great range in optional course offerings permits a greater flexibility in the teacher education programme. For the award of the Diploma in Education, a student is required to have obtained an equivalent of 8 credits, including teaching practice, in 1 academic year or 2 semesters (1 credit in course areas other than teaching practice is equivalent to 60 hours of course work). In the Diploma course, teaching practice is rated at $2\frac{1}{2}$ credits and required 400 hours of work in school. In comparison, a student in the two-year full-time Certificate in Education course has to obtain 16 credits for the award of the Certificate. Teaching practice contributes 2 credits and requires 300 hours of work in school.

The continuing education of teachers

The continuing education of qualified teachers has become an increasingly important function of the College. What may be considered an innovation in the organisation of continuing education in the form of in-service courses is the more systematic appraisal of the educational demands in a changing society. For example, the Extra-Mural Studies Department, which is responsible for organising all in-service courses, is engaged in organising courses which aim at upgrading the language proficiency and language teaching skills of teachers in response to the increased stress on the importance of teaching two languages more effectively in school. Its role in the general improvement of the quality of education is further seen in the organisation of courses in which teachers learn how to plan and carry out teaching-learning activities based on the new syllabuses developed by the Ministry of Education.

The Institute of Education

A further development in teacher education in Singapore will occur when the Teachers' Training College is replaced by an Institute of Education some time this year. It is envisaged that the Institute will continue the efforts to improve (a) the quality of teacher education through the upgrading of staff and emphasis on research and the development of teacher education programmes, and (b) the quality of education in general through pre-service courses for intending teachers and in-service courses for qualified teachers.

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TEACHER EDUCATION IN SRI LANKA (CEYLON)

Organisation of Teacher Education

Professional preparation of teachers in Ceylon is organised at three levels which are as follows:

- (a) General training for teachers who will be required to teach in Grades 1 - 5.
- (b) Specialist training for teachers, who will be required to teach in Grades 6 - 9.
- (c) Post-graduate training for graduate teachers who will teach mainly in Grades 9 - 11.

General Training

2. This is a two year programme of teacher education which is provided in 20 Teachers Colleges. The Primary objective of this programme is to produce a teacher who is capable of teaching all the subjects in Grades 1 to 5 (First segment) of the schools in Ceylon. This is really the primary school in the educational structure of Ceylon, and the teacher at this level should essentially be a general practitioner, who should possess the appropriate knowledge, skill and attitudes necessary for the variety of instructional and of non-instructional roles in the primary school. In this programme more emphasis is placed on the development of the personal qualities of the teachers, the methodology of teaching, child development, organisation of the teaching/ learning situations in the primary school, rather than on the subject matter content itself.

3. In addition to the training given to teach effectively the primary school subjects, certain disciplines like science and English and a main subject are also included in the curriculum of these Teachers' Colleges. Hence it will be noted that the curriculum of these Teachers' Colleges is designed not only for the professional preparation of the teacher to function effectively in the primary levels, but also for his personal development and growth.

Specialist Training

4. This is also a two year programme of teacher education provided in 8 Specialist Teachers' Colleges in subject areas such as Science, Mathematics, Teaching of English as a second Language, Aesthetics, Home Science, etc. In addition to the professional subjects and general subjects that they are taught, students also receive a training in their specialist subject field at depth so that they are capable of teaching these in grades 6 to 9. This programme is geared to the needs of the second segment (Junior Secondary) of our school system. The entry qualifications stipulated for these students are generally higher than in the case of those who enter General Teachers' Colleges.

Post-graduate Training

5. Professional training for graduates is available in three campuses of the University of Sri Lanka. B.Ed. courses are also available in the University for those who decide on a teaching career after their G.C.E.(A.L.) These teachers are trained chiefly to teach in the senior secondary segment of the schools in Sri Lanka.

Relationship between the Teachers' Colleges and the Centre for Curriculum Development and Research

6. Some years back the Teachers' College curriculum was dominated by subject disciplines, the content of which had little relevance to what they were expected to teach in the primary or secondary schools. The curricula of the Teachers' Colleges have now been revised and re-oriented to meet more adequately the needs of our schools. What is now taught in Teachers' Colleges is more useful, challenging, and relevant to the needs of the student teacher also. There is much co-ordination between the work done in the Curriculum Development Centre and the Teachers' Colleges. Experienced lecturers are assigned periodically for work in connection with curriculum development and research. Refresher courses are held for the teacher educators by the Curriculum Development Centre staff. There is a two way process between these two educational institutions. Curriculum material, teaching aids and innovations in respect of teaching methodology produced by the curriculum centre are passed on to the Teachers' Colleges. Teachers' Colleges in turn try them out in affiliated schools and provide the necessary feed-back to the Curriculum Centre, so that the latter is in a position to revise them before implementation in schools.

Techniques of Teaching in Teachers' Colleges

7. There was a time when the entire programme of teacher education was dominated by lecturers, when student teachers passively listened to lectures and prepared themselves intensively for a rigorous final examination at the end of two years. This was found to be very unsatisfactory, and a significant change was effected by the reduction of a number of lectures, and the introduction of a strategy of instruction which we have termed as the assignment tutorial method. Here what we do is to get small groups of trainees to undertake simple investigations into the design or nature of curricular material used in the elementary or secondary school. By this method we not only inculcate in them an experimental attitude, but also enable them to engage in independent study. These assignments are designed in order to impart certain competencies needed by the primary and secondary school teachers. The assignment system has generated a deep sense of involvement and active participation of not only a large majority of student teachers but also teacher educators.

8. Team teaching, peer group teaching, seminars, workshop techniques form the repertory of teaching methods in Teachers' Colleges. It must be mentioned specifically here that the 'assignment - tutorial method' has effectively bridged the gulf between theory and practice of teacher education in Sri Lanka.

School Practice in Affiliated Schools

9. Former "teaching practice" which meant exclusively the staging of pre-planned lessons has now been replaced with 'School Practice' which not only includes actual classroom teaching, but also functions such as the following:

- (a) Observation of children both in and out of the class room;
- (b) Functioning as aide or understudy to selected professionally qualified teachers in the affiliated schools;
- (c) Micro-teaching experiences;

- (d) Participation in the co-curricular activities of the affiliated schools to which trainees are assigned;
- (e) Participation in the life of the community outside the Teachers' College.

10. The two year teacher education programme is school-based and steps have been taken to give complete training under live classroom conditions. In order to implement these changes 10 to 15 neighbouring schools have been affiliated to each of the Teachers' Colleges, and our students spend a minimum of 20 hours per month in these affiliated schools. Normally three weeks of college work is followed by one week of teaching practice in the affiliated schools. The curriculum and the time table of the affiliated schools are controlled and supervised by the Principal and staff of the Teachers' College. Our experience is that this process of practical training in 'off-campus affiliated schools' produces three types of very significant results.

- (a) The concepts, skills and methodology that the student learns in the Teachers' College is put to the test in the "crucible" of the classroom situation. The experience so gained in the classroom is brought back to the tutorial situation in the college for discussion. This two way process is contributing significantly to the development of the correct professional attitudes, skills and competences in the teacher. The training that he receives becomes real, useful, and has greater transfer value.
- (b) The curricular material prepared by the Curriculum Development Centre is tried out by the Training College staff and students in the affiliated schools, which function as pilot schools for this purpose. The experiences so gained are reported back to the Curriculum Development Centre. This kind of experience helps to develop in the student teacher an experimental attitude and also helps to produce in him certain creative and innovative tendencies.
- (c) This system of affiliated schools also contributes in a large measure to the all-round improvement of the educational standards of the 10 or 15 schools affiliated to each Teachers' Colleges.

Training in Community Development Work

11. A very conscious effort is now being made to foster better college-community relations. Under the earlier system of training Teachers' Colleges adopted an "ivory tower" attitude and kept aloof from the community in which they were located. Today Teachers' Colleges are providing extension services, adult classes and also they organize community development projects. With the affiliation of a number of schools to each Teachers' College, the latter now belongs to the community of these schools, and also gives the necessary educational leadership and direction to them. Our schools are playing a vital role as agents of community development. Hence it has become imperative for Teachers' Colleges to prepare students for this role also.

Evaluation in Teachers' Colleges

12. A system of "continuous evaluation" exists in the Teachers' Colleges. Term tests, unit tests, assessment of assignments, school practice and personality traits are all considered in awarding the Trained Teacher's Certificate.

A final written examination is also held at the end of two years, which is partly external. Performance in this examination is also considered in deciding the passes. Certificates are awarded at two levels - First Class Certificate and Second Class Certificate. A First Class Certificate will entitle the candidates to two additional increments on their salary scale.

Correspondence-cum-on-the-Job Training Programme for Untrained Primary

13. In order to clear the backlog of untrained teachers, a correspondence-cum-on-the-job training programme was organised in January, 1972. This is an emergency measure taken to upgrade the quality of the large number of untrained teachers in schools. The significant features of the programme are as follows:

- (a) This is a three year self-study programme for teachers who are at present teaching in schools without having received any form of pedagogical training.
- (b) Lessons are despatched to them by post and there is feedback in the form of assignments. These lessons are self-explanatory. Necessary references are given at the end of each lesson, along with topics for assignments.
- (c) The subjects offered by students following this course are identical with the subjects that student teachers follow in the institutional courses. They sit for the same final examination, but in three instalments.
- (d) The correspondence training programme is geared to the institutional training programme. Nearly 200 student teachers are attached to each Teachers' College. The Teachers' College staff act as consultants to them. Teachers' Colleges function as centres of training for them. In-service courses during vacations, term tests, marking of assignments are done by Teachers' College staff.
- (e) On-the-job training is supervised by a team of lecturers/master teachers who visit them in their schools.
- (f) At the end of the three year programme they are entitled to the same certificate and same emoluments if they pass the final examinations.
- (g) A postal training programme organized on the above lines is also available for the professional preparation of (i) Untrained graduate teachers and (ii) Headmasters of Primary Schools.

TEACHER EDUCATION IN TRINIDAD AND TOBAGO

General

Trinidad and Tobago are two islands forming one political state which gained political independence on 7th August 1962. Trinidad is the larger of the two and the more populous. Both islands are in the Caribbean area, and form part of the chain of islands commonly called the West Indies. Trinidad and Tobago are at the southern end of the chain and Jamaica at the northern end.

Trinidad and Tobago's nearest Commonwealth island to the north is Grenada; to the South, Trinidad is nearest to Venezuela (an independent non-Commonwealth country in South America).

Our nearest Commonwealth neighbour to the South is Guyana.

Size

Trinidad and Tobago make up a small country of less than 2,000 square miles (5180 sq. kilometres) with a population of about 1¼ million. It is difficult, it is said, to find another island as small as Trinidad with people so mixed in origin. The majority of the people are of African descent but there is a substantial number of Asian descent, Indians (from India), Chinese and Europeans from France, Britain and Spain.

Very limited traces remain of the original indigenous inhabitants of these islands, the Caribs and the Arawaks.

Language

English is the official language, the lingua franca and the medium of instruction in all educational institutions at all levels. Other languages used in Trinidad include Hindi and Sanskrit (for religious ceremonies among Hindus) and Arabic (for religious purposes among Muslims). Spanish is the main foreign language taught in secondary schools and French is next.

Schools and Education

More than 40% of the population is of school age (5-17). Legally, compulsory schooling should start at age 6 and end at age-14 plus. In practice, however, children begin school at age 5 and most children remain at school up to age 15. Many continue up to age 17 - 18 at secondary schools.

Types of Schools (Government and Assisted)

- (a) All Age Schools - accepting pupils from age 5 and keeping some until age 15. At 11-plus all children in these schools take the Common Entrance Examination; selected students have free secondary school education.

- (b) Secondary - Government, Assisted, and Independent or Private.

Over 60 Government and Assisted Secondary schools are working towards the G.C.E. O Level Examinations at the end of 4 - 5 years, some towards the A Level Examination after 6 - 7 years. All teachers in these schools are paid by government and by the Teaching Service Commission. There are many private secondary schools where students have to pay fees for their education. The quality of the teaching given in these schools varies considerably from school to school. Students also take the G.C.E. O Level Examinations.

- (c) Teachers' Colleges, Technical Institutes and the University of the West Indies.

There are in Trinidad five Teachers' Colleges training student teachers for work in All Age Schools and one Teachers' Preparatory College which is part of a multi-purpose institution also preparing teachers for work in All Age Schools. The School of Education of the University of the West Indies at the St. Augustine Campus Trinidad, is not yet directly engaged in training student teachers for any type of school. The St. Augustine Branch of the University of the West Indies has Faculties of Arts, Science and Agriculture and is one part of the University of the West Indies which has other Branches at Cave Hill, Barbados, and Mona, Jamaica, to the overall conduct of which the Government of Trinidad and Tobago subscribes.

- (d) Youth Camps and Vocational Schools

These are residential schools accepting students from age 15+.

Teacher Education is given at the following institutions on a consecutive basis:

- (a) Six Teachers Colleges - 5 for in-service teachers only
1 for pre-service teachers only

"Pre-service" in the Trinidad and Tobago context means not confirmed by the Teaching Service Commission. It does not mean "not having taught in any school before initial training".

- (b) The University of the West Indies Faculty of Education at Mona, Jamaica, provides consecutive training for new University graduates and further training for senior teachers in the service.

Short courses and in-service courses are given and organized by District Inspectors for beginning teachers and untrained teachers in all-age schools on an ad hoc basis in various school buildings.

- (c) The School of Education, St. Augustine, Trinidad, which is part of the Trinidad branch of the University of the West Indies, runs short in-service courses for advanced teachers and teacher educators, engages in research in curriculum development and assists in the examination of student teachers in practical teaching.

Entry Qualifications for Pre-primary and Primary Teaching

A. Minimum qualifications for selection for teaching in any government or government-aided primary or all-age school is

- (a) Five Ordinary Level Passes at the London G.C.E. Examination. Passes may be gained at one sitting or at many different sittings.
- (b) Applicants usually have had eleven or twelve years of general education.
- (c) All prospective teachers must register with the Ministry of Education and Culture and be given a Teachers' Registration Number.
- (d) The minimum age for entry into teaching is the same as for the Public Service in general, that is, 17 years.
- (e) The maximum age for recruitment to teaching on a permanent basis in government or government-aided schools is 45 years.
- (f) Retirement Age - Optional - 55 years
Compulsory - 60 years
- (g) After the age to 45, a new teacher can only be employed on a contract basis renewable at the end of every 3 years or so.

B. Minimum qualifications for working in nursery or pre-primary schools, which are all government-assisted or independent, are not rigidly stipulated or observed. Women and girls with fewer than five O-levels may be employed at this level.

C. Minimum qualifications for teaching at primary level in independent schools are the same as for government or government-aided schools. In practice, these requirements are often not met and a lower standard is often accepted. Professional training is not a pre-requisite.

Secondary Schools - Government and Government-Aided Minimum qualifications for employment in

- 1. Junior Secondary Schools - ages 11-14+ (3 year schools)
 - a) Five O-Level subjects or equivalent plus
 - b) Initial Teachers Training plus
 - c) Further in-service training - part-time or full-time, depending on the subject taught.
- 2. Other Secondary Schools (5 year schools)
 - a) Five O-Levels or equivalent plus
 - b) Two A-LevelsNo professional training is required.
- 3. Secondary Schools (Seven-year schools)

As for category (2) above.
Many teachers in these schools are University graduates.
Professional training is not a pre-requisite.

Teachers' Colleges - Teacher Educators

- a) Initial teacher training.
- b) Some experience in classroom teaching at any level.
- c) Five O-Levels or equivalent qualification, or specialist qualifications.
- d) Many persons have university degrees - 1st degrees of 3-year duration and some have in addition 2nd degrees of 2-year duration.
- e) Or General Impression and Teaching Record of the applicant and the necessary vacancy on the establishment.

SELECTION OF STUDENTS FOR TEACHERS COLLEGES

A Pre-Service

Minimum age - 17 years. Maximum age 25 years.
Resignation from Teaching Service effective on the date of entry into the Teachers College.

Academic - Five 'O' Levels necessary.

Other requirements - (i) Two recommendations or character testimonials from Principal of school last attended or from other prominent citizens.

(ii) A score of $66\frac{2}{3}\%$ on a locally designed and administered aptitude test in Mathematics, English and Education Psychology and Practice. Plus

(iii) A face to face interview before a panel consisting of Teacher Educators and a representative of the Teaching Service Commission or an appropriate teachers' association.

(iv) Medical certificate of fitness.

B In-service Teachers' College

- (a) Five or more years of classroom teaching are necessary before entry. This is not a principle but happens in fact as teachers have to wait their turn to get into the five in-service colleges.
- (b) Academic qualifications are the same in theory as for the pre-service colleges. Some teachers entering in-service colleges have come through the pupil-teacher system and have gained the Teacher's Provisional Certificate or the Cambridge School Certificate. Both of these qualifications are becoming rarer among entrants as these exams are no longer taken in Trinidad and Tobago.

CURRICULUM

The duration of the course in all Teachers' Colleges in Trinidad and Tobago is 2 years, that is 6 terms of 13 weeks each.

CERTIFICATION is the responsibility of the Ministry of Education and Culture. The Ministry is advised by a Teacher Training Board consisting of all Principals of Teachers' Colleges, a representative of the Teachers' Associations, a Secondary School Principal, a member of the general public a Ministry official and two representatives of the School of Education of the University of the West Indies, St. Augustine Branch.

Programme of Study

All colleges, both in-service and pre-service, have to follow the same course in essence, as outlined in standard syllabus, but colleges have some freedom in adding to the course such programmes as may enrich their students and meet particular needs. This is often done in the first year. Such additional courses may not be examined or, if examined, are examined internally. For the final examination, students are examined in Language and Literature, General Science, Basic Mathematics, Education, Social Studies and are elective subject.

Every student must choose one elective subject only. The colleges offer such electives as the college staff can handle, as the syllabus permits and as facilities allow. Elective classes are usually smaller than other classes and students pursue their elective subject to a higher level than the other subjects.

Teaching Practice

All students are required to do a minimum of 12 weeks of Block Teaching Practice in a school during their 2-year course. Colleges may do more than 12 weeks and work out various arrangements for giving students more practice, including:

- i) Demonstration lessons at the colleges in which teacher educators, class-teachers and senior student teachers operate;
- ii) Microteaching;
- iii) Releasing students for one half-day every week to work in selected practice schools.

List of Possible Electives

Agriculture	Industrial Arts (Wood)	Mathematics
Art	Industrial Arts (Metals)	Literature
Biology	Psychology of Education	History
Chemistry	Spanish	Geography
French	Sociology of Education	Drama
Home Economics	Craft	Physical Education
Education	Needlework	

Examinations

All colleges conduct their own internal examinations. In addition all students must write the Final Examinations which are "external" to each college. Papers are set in consultation with Subject Committees in each subject by an External Examiner. Marking is undertaken by the Subject Committee together with the External Examiner, who moderates the results across all the colleges.

To be awarded a pass in a subject students must satisfy the minimum requirements of both the Final Examination and the course work. Course work includes assignments over the 2-year course together with internal examinations.

In addition, to be awarded a diploma, the student must have obtained an aggregate of at least 50% in the entire examination plus course work.

Failure to reach the required standard in 3 or more subjects is considered as an outright failure. In such a case the student is requested to rewrite the whole examination.

Resits are allowed up to 3 years after the first attempt. Colleges must certify that students re-sitting have kept in touch with the college and done assignments in the subject.

A supplementary examination is run in the term following the Final Examination.

Conditions of Service

In-service students are non-residential. They are paid their salary while in training, plus a book allowance. They are not required to contribute any money towards their training. On leaving college, employment is assured.

Pre-service students are given an allowance of \$T720 per year, together with free board and lodging and a book allowance. Medical attention may be secured free of charge but is not available on the Campus.

Students are required to deposit caution money on entry to the course. Transport to practising schools is provided by the college, free of charge to the students. Transport in connection with official assignments is also provided.

Salaries

On successful completion of the course plus certification, teachers are in range 28A with a beginning salary of \$403 per month.

Direction of Trained Teachers

All colleges train teachers for Primary and All-age schools. Every student must be trained to teach pupils aged 7-11 years. Every student must elect in addition to learn to teach pupils younger than 7 (Infants, 5-7) or older than 11 (11-15). On graduation, most students are posted to all-age schools. Those with A level qualifications, especially in subjects like mathematics, can seek employment in the lower forms of secondary schools.

RECENT DEVELOPMENTS AND TRENDS

Inter-college Collaboration

- a) 1973 March, there was the first inter-Teachers' College Sports Gala in which all colleges engaged on a non-competitive basis in a variety of sports and games. Participation at staff and student levels was high.

- b) Annual Joint Inter-College and University Debating Series with the Ministry of Health Population Council and the Ministry of Education collaborating.
- c) Short, periodic exchange of students, e.g. students from one college in a particular subject spend a given time at another college and follow that part of the course there as an inter-institutional arrangements.
- d) Additional training for teachers destined for Junior Secondary Schools: Full-time courses are conducted in Home Economics, Industrial Arts and Agriculture. These teachers get 2 additional increments when employed in Junior Secondary Schools.
- e) Junior Secondary Schools are run on a 2-shift basis.
- f) Plans are under consideration for compulsory training for teachers for secondary schools, both those already in service and those who intend to teach in future. The School of Education is to be involved in this project.
- g) A 440-strong non-residential teachers' college is under construction. Completion date is likely to be September 1973. The trend is to effect economy and efficiency by having larger colleges and in this way be able to have a fully trained teaching force at the Primary level.
- h) A syllabus was introduced in 1970 in keeping with the demands of independent Trinidad and Tobago. The syllabus is experimental. Subject lecturers are free to modify it in joint consultations with one another and the external examiner.
- i) Agricultural Science as an elective subject at Teachers' Colleges was introduced in 1970. Boys and girls pursue the subject for the entire course. On the whole the trend is for students to elect practical subjects like Art, Agriculture, Home Economics and Industrial Education in increasing numbers. Drama has recently been added to the list of electives.
- j) Complementary electives may be organized on an institutional basis.
- k) Production of teaching materials especially in Mathematics, Science and Language Arts by the Production Centre of the St. Augustine Campus under the UNESCO/UWI programme.
- l) Appointment of Curriculum Supervisors for the Junior Secondary Schools in Mathematics, Science, Social Studies and Language Arts.
- m) On the spot orientation courses for all teachers assigned to junior Secondary Schools in the vacation preceding the opening of the school year.
- n) Vacation in-service residential training courses are planned for teachers and workers in special schools and child care institutions.

- o) The Publications Branch of the Ministry of Education and Culture circulates material to which practising classroom teachers, school children, student teachers and Ministry officials contribute. Circulation is free to all primary schools and teachers' colleges.
- p) A course in International Relations is conducted for student teachers-in-training colleges and students in secondary schools by trained teachers seconded to the Institute of International Relations located at the St. Augustine Campus, U.W.I.
- q) In-service training of teachers for vocational schools.
- r) Inter-college collaboration between a teachers' college and the Eastern Caribbean Institute of Agriculture and Forestry in the teaching of agriculture at elective level.
- s) Short courses, both pre-service and in-service, for teachers in independent pre-primary schools. Workshops in the production of materials for local use with children at pre-primary level. Use of community centres for nursery school purposes.

Non-formal Education - Expressive Arts

- t) Non-formal, cultural education and the steelband
Experiments proposed for teaching of the steelband to children at all levels - the use of skilled craftsmen as teachers, standardization of pans, Junior pan festival, methods of teaching suited to particular age groups and the inclusion of conventional instruments into the steel orchestra, were widely discussed at a National Consultation on the Steelband in January 1973. Participants included representatives from all steelbands, university professors, managers of steelbands, student teachers, teachers of music (conventional), arrangers for bands, composers, sponsors, politicians government officials and civil servants. A number of full-time classroom teachers are involved in the steelband movement as players, arrangers, composers and managers.
- u) Junior Carnival Competition based on the primary schools with teachers and pupils collaborating in the design and execution of costumes, choice of bands, etc. This was effected for the first time in 1973 with the help of the Drama officer of the Division of Culture, Ministry of Education and Culture and a leading dance-school choreographer from The Little Carib Theatre of Trinidad.
- v) National Youth Arts and Crafts Competition involving all schools at all levels primary, secondary and teachers colleges. Vocational schools and technical schools are encouraged and allowed to display their work but need not enter the competition for judging.
- w) Junior Achievement - Education in Practical Business Projects is confined mainly to secondary schools and business houses.

TEACHER EDUCATION IN ZAMBIA

TRENDS IN CURRICULUM REFORM

During the period since Independence, the structure of the education system, both quantitatively and qualitatively, has been significantly changed. The difference between the two is of course a matter of degree and time.

The Zambia Primary Course, a post-Independence curriculum development, marks a complete departure from the traditional system of education which was essentially elitist and leading less than 20% of the Grade VII population to the secondary school. Even for those who were successful, the course was somewhat academic and bookish.

The New Course, whose syllabuses were finalised and approved in 1971, marks a great stride away from the old system of passive learning. It attempts to foster alert and informed young people at home, competent in communication skills, English and their own Zambian language, who have achieved a sound general education and have a keen understanding and appreciation of their own society and culture.

The Zambian spirit in curriculum change is dynamic. The post-Independence change is only partial and a beginning. It is a recognised fact that the uses to which education can be put in Zambia are very different now than they were in the pre-Independence days.

The annual output from schools at the various exit points in the system far exceeds the growth of new wage earning jobs. Our educational system has to ensure that increasing numbers of boys and girls are prepared in the best way possible for self-employment, hopefully in their own communities, whether these be rural or urban. It is hoped to reinforce and direct the Zambia Primary Course to enable it to provide initiative in the field of post-primary skills training, encourage the use of the school facilities to train those who are out of school, and strengthen the educational services which are specifically designed to enable men and women to make more use of the schooling they have already received.

Zambia, like any other developing country in Africa, realises that there should be constant change and review in the curriculum if it has to serve any useful purpose. The objectives of the curriculum, both primary and secondary, should be interpreted in the light of the fact that for a very long time most of our children will receive no more than seven years of full time schooling. Only a very small number of them will secure places in institutions of further training; fewer still will enter wage-earning jobs. The primary school, therefore, must help children to prepare themselves for a productive life in their own communities. The school must foster children's self-confidence and self-reliance by arousing vocational interests and teaching practical skills and by helping to make meaningful the social and economic changes which their communities are undergoing. The community itself should, in fact, become a major instrument of education.

In pursuing these aims the Curriculum Development Centre is paying particular attention in the transformation of the primary school, especially, concentrating on social studies, environmental science, home-craft and manual craft training.

It must, however, be realised that the objectives of the Zambian Primary Course, in its present and projected form, can be achieved only by a careful and vigorous campaign to win over parents, administrators, professional supervisors and, most of all, the teachers.

PRE-SERVICE TEACHER TRAINING

The curriculum of the nine pre-service teacher training colleges in Zambia is progressively being re-assessed and adapted in line with the conceived role of the Zambian school to-day.

The teacher training programmes are primarily concerned with equipping the students of teacher training colleges with the knowledge and skills that they require to teach effectively the New Zambia Primary Course. It is hoped that by 1976 there will be more Form V leavers seeking entry into the colleges. This will be a welcome development which will necessitate the mounting of a specially designed course of training.

There is a possibility of instituting a third year of specialised training for selected groups of able students, following the normal two year certificate course. Such teachers would strengthen the system by improving the depth and quality of instruction in certain subjects.

The Ministry of Education, with the co-operation of the tutors in teacher training colleges, has recently undertaken to design and restructure a common syllabus in every field of study, to be followed by the colleges. Enough room has been left in the syllabuses for adapting to individual needs of colleges.

The most noticeable change in the instructional process in the colleges is the liveliness of the tutors in the use of new child-centred approaches in curriculum studies. The move is towards re-shaping the content of the Primary Teacher Training Course in the light of the objectives of the Zambia Primary Course and the heavy responsibility which rests on teachers under the new village development scheme.

Side by side with developing this performance requirement in the students, facilities exist in the colleges through the extra curricula programmes for creating opportunities for developing students' attitudes in the right direction. Through discussions on current issues in the Zambian educational system the students are trained to become effective thinkers about present day problems and procedures. They must think about alternatives to what is known and accepted. They must be willing and able to experiment and to try to acquaint themselves with the needs and requirements of the community they will be serving.

IN-SERVICE TRAINING

Various agents and institutions in Zambia have been concerned for some time with the in-service training of teachers. The Inspectorate, both at Ministry of Education Headquarters and in the provinces (Regions of Education) has achieved its full potential as a retraining force.

Three of the pre-service colleges operate one-term in-service courses for the Lower Primary School teachers, primarily for the development of the performance requirement in the New Zambia Primary Course.

The Institute of Education of the University of Zambia has been an active partner with the Ministry of Education in organising a number of short retraining courses and one course of a year's duration leading to the award of the Associate Certificate in Education. For some time, the Curriculum Development Centre conducted short courses for teachers on the use of its initial materials.

A recent addition to the agents of in-service training of teachers was the establishment of a specialist in-service training college, which is officially designated as the National In-Service Training College, which admitted its first in-service teachers in January, 1970. The National In-Service Training College had to be established because of two factors which, by 1969, had become apparent in the Zambian Primary Education. Firstly, the apparent success and projected expansion of the Zambia Primary Course had created a demand for teachers trained in its methods. Secondly, the quantitative expansion of education at both primary and secondary levels had been vast. The turnover of trained teachers was accelerated by the introduction of the emergency Teacher Training Programme. Teachers were trained for one year in residence and one year as student teachers in the field. The effect of such a scheme was such that the quality of teaching became somewhat diluted because of the inadequate preparation given.

The immediate role of the College was pre-determined by obvious priorities. First it had to play its part in re-training the lower primary teachers to use the Zambia Primary Course. Then, as the first wave of the new course (Zambia Primary Course) was carried up the schools, it had to extend this retraining to upper primary teachers.

Afterwards, with its courses organised and a student body recruited, its facilities enlarged by building programmes financed under the World Bank Education Project, a specialist staff assembled and a body of expertise accumulated from experience, the College became increasingly free to search for an individual role and create its own demand in the in-service training of teachers, inspectors, Heads and educational administrators.

The College is currently offering three types of courses: the Advanced Primary Certificate Course, a one year up-grading course, the Zambia Primary Course (Upper Primary) and the Zambia Primary Course (Lower Primary). Plans are under way for the College to organise and run the following courses once the extensions to the buildings have been completed:

- (i) Courses to upgrade the professional qualifications of Primary school teachers.
- (ii) Courses to raise the teachers' level of personal education.
- (iii) Courses to improve the teachers' knowledge and professional skills, so as to create in them a desired performance requirement.
- (iv) Courses to improve the quality of the administration and professional supervision of teachers.
- (v) Courses to orientate the teachers to new responsibilities when appointed to posts which carry such responsibilities.
- (vi) Courses to implement curriculum innovation and change.

It is also the intention to regard the College as a base for workshops on curriculum for teachers, inspectors and administrators. Close liaison between the Curriculum Development Centre and the National In-Service Training College is being established. The College will assume responsibility for interpreting some of the curriculum material as it is developed to a stream of teachers passing through the College at the rate of one thousand every year.

DIPLOMA IN TEACHER EDUCATION OF THE UNIVERSITY OF ZAMBIA

A new course for primary teacher education has been approved. This course will be organised and run by the Institute of Education of the University of Zambia. Each year about twenty highly experienced and successful primary school teachers who meet the University's entry requirements for the course will be selected and trained for two years. Teachers who complete the course satisfactorily will be awarded the Diploma in Teacher Education (Dip. T.E.) of the University of Zambia.

There has been for some time a recognised need for the Institute of Education to be concerned with the entire question of curriculum change by involving itself in the education of staff of the primary pre-service colleges. The staff of the Institute of Education are currently, in conjunction with the Ministry of Education, the Curriculum Development Centre and the teacher training colleges busy designing and structuring a course programme which will reflect the current thought on the purpose of all curricula in the Zambian Education System.

The establishment of this course in June 1973 is a welcome innovation in the education of teachers in Zambia.

In addition to this two year Diploma course, the Institute is contemplating the conduct of short in-service courses for staff already in teacher training colleges.

CONCLUSION

Zambia may not have registered what might be considered, on an international plane, surprising innovations in its teacher education. The innovations which have taken place, however, are close to our hearts, for it is a beginning in what we believe is the right direction. We believe that the ability of an education system to innovate depends in large measure upon the ability of its teacher to innovate and to bring about the acceptance and pursuance of the new educational objectives within the system. Now that the role of education in Zambia is agreed, we are in a much better position to describe the roles of our teachers and teacher educators and provide the opportunities which will enable them to carry out these roles effectively.

APPENDIX I

AIMS OF PRIMARY EDUCATION IN THE ZAMBIA PRIMARY COURSE

- a) Through healthy mental, physical and spiritual growth to develop in the child a sense of his personal worth.
- b) To create situations involving the child in the life of the community through which he can acquire a balanced awareness of his environment and of his place as a citizen of Zambia and the world.
- c) To identify and foster talent and initiative; to assist the child to overcome any handicap.
- d) To give permanent literacy in a Zambian language and English; to develop a spirit of enjoyment in reading and communicating in the spoken and written word.
- e) To assist the child to acquire an understanding of the arithmetic and scientific skills he is likely to need in ordinary life: to encourage a spirit of inquiry and, by practice in observation and experiment, to build up in the child a knowledge of basic mathematical and scientific concepts, and of their relationship to his surroundings.
- f) To give practical training in simple environmental science and homecraft; to develop in the child a wholesome attitude to physical labour and an appreciation of the dignity of any occupation which provides a service to the community.
- g) To give opportunity for individual creative expression through art, craft, song, dance and drama; to encourage in the child an appreciation and love of his heritage and changing culture.
- h) To inculcate in the child sound moral values and standards of personal conduct based on self discipline, personal integrity, respect and consideration for others.