DOCUMENT RESUME

ED 231 696 SO 014 717

TITLE	Social Change and Training of Educational Personnel. Report of a Regional Design Meeting (Bangkok, Thailand, July 26-August 3, 1982).
INSTITUTION	United Nations Educational, Scientific, and Cultural Organization, Bangkok (Thailand). Regional Office for Education in Asia and the Pacific.
PUB DATE	Aug 82
NOTE	99p.
AVAILABLE FROM	UNIPUB, 1180 Avenue of the Americas, New York, NY 10036 ($9.00).
PUB TYPE	Reports - Descriptive (141) -- Collected Works - Conference Proceedings (021)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Comparative Education; Educational Change; *Educational Development; Educational Improvement; *Educational Needs; Elementary Secondary Education; Foreign Countries; Higher Education; *Professional Training; Program Development; Program Evaluation; *Social Change
IDENTIFIERS	*Asia; *Pacific Region

ABSTRACT

An overview of 19 papers presented at the meeting indicates that countries in the Asia and Pacific region are aware of socioeconomic changes and the need for national educational systems to provide adequate responses to these changes. New personnel profiles and educational training programs are needed. Factors which will affect the development of educational personnel include: technological advancements; social trends; changes in social requirements and in educational science; the information revolution; and management issues, e.g., public participation in system development. Guidelines are suggested to help educators develop and evaluate training programs. Specific suggestions are provided for preparing personnel profiles and training program strategies, content, materials, and evaluation. Planning for future activities is also discussed. Specific research projects for national initiatives are outlined and described. For example, one study will examine the role of community leadership in the management of education. (RM)

APEID

Asian Programme of Educational Innovation for Development

SOCIAL CHANGE AND TRAINING OF EDUCATIONAL PERSONNEL

Report of a Regional Design Meeting
Bangkok, 26 July - 3 August 1982

UNESCO REGIONAL OFFICE FOR EDUCATION
IN ASIA AND THE PACIFIC
Bangkok, 1982

APEID Regional Design Meeting on Preparing Personnel Profiles and Training Content, Materials and Evaluation, Bangkok, 26 July-3 August 1982.

Social change and training of educational personnel; report. Bangkok, Unesco, 1982.

94 p. (Asian Programme of Educational Innovation for Development)

1. EDUCATIONAL PERSONNEL TRAINING – CURRICULUM – ASIA. 2. EDUCATIONAL PERSONNEL TRAINING – INSTRUCTIONAL MATERIALS – ASIA. 3. EDUCATIONAL PERSONNEL TRAINING – EVALUATION. I. Unesco. Regional Office for Education in Asia and the Pacific, Bangkok. II. Title. III. Series.

370.71

Published by the
Unesco Regional Office for Education in Asia and the Pacific
P.O. Box 1425, General Post Office
Bangkok 10500, Thailand

Printed in Thailand

The meeting was attended by participants, in their personal capacities, from various countries. They worked together in various combinations on the proposals outlined in this report. The content of the report and the suggested plans for future activities do not necessarily represent any official views of the governments of the participants nor their respective institutions.

This is a report of the Design Meeting on Preparing Personnel Profiles, and Training Content, Materials and Evaluation. The Meeting, which brought together specialists from eleven countries in the Asia and the Pacific Region, completed five tasks which, as covered in the report, are: (i) proposed a review of the state of the art in respect of the preparation of personnel profiles; the development of training content and materials; and an evaluation of national programmes; (ii) explored common concerns which necessitate a wholesale review of the organizational set-up and personnel of educational systems in the member countries; (iii) developed designs and guidelines for preparing organizational, institutional and personnel profiles, together with strategies, contents, materials and evaluation of training programmes to reorient educational systems and prepare personnel; (iv) prepared frameworks for exercises at the national level; and, (v) provided guidelines for studies, and a regional activity.

The Design Meeting was convened at the invitation of the Unesco Regional Office for Education in Asia and the Pacific under APEID and met at Bangkok (Thailand) from 26 July to 3 August 1982.

The specialists attending the Design Meeting came from Australia, India, Japan, Malaysia, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Sri Lanka, Thailand and SEAMES.

The group carried out its deliberations under the Chairmanship of Professor P. Hughes (Australia) with Dr. N.N. Singh (Nepal) and Dr. Somporn Buatong (Thailand) as Vice-Chairmen, Professor Donald Bewley (New Zealand) as Rapporteur and Dr. H.K. Paik, Staff Member of ACEID as Secretary.

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Chapter One

INTRODUCTION

The task facing education throughout the world has become more complex and more formidable over recent decades. This is partly a matter of numbers, as schools seek to cope with the needs of growing populations and of increased participation from people who in the past have lacked opportunity. It is also partly a matter of new and amended requirements arising from social and technological change. The pressures from these changes will grow greater rather than smaller. Some future needs we can predict: the requirements for personal and national security, the demand for economic and social equity; others, such as technological and political change, remain unpredictable. Education has the task of preparing for both kinds of change: the predictable and the unpredictable. For this task, the adequate preparation and continued development of the personnel involved will be vital.

Background to report

This report on the preparation of educational personnel was the direct result of an eight-day workshop at Unesco Regional Office in Bangkok, from 26 July to 3 August 1982. In fact, however, it is part of a longer sequence of events, involving much planning and many individual, national and regional contributions. The report was envisaged as part of the Third Programming Cycle of APEID, a cycle for the period 1982-86. In that cycle it is one of the eight Programme Areas defined as special priorities for APEID: Programme Area VII - Professional support services and training of educational personnel.

The programme preamble states:

".... professional support services and education and training of educational personnel are urgently needed for teacher training institutions, curriculum development centres, educational technology services including resource centres of different types, and educational planning and management centres, etc. Capabilities need to be developed also in interdisciplinary research and evaluation, planning and programming of education in relation to other sectors

and in the context of desired features and emerging technology of mass communication and education. Links need to be systematically established between education and other sectors so that their facilities and expertise are available for professional growth of educational personnel in terms of new competencies such as management of innovation, rural development, productive skills and improvement of health and nutrition. Many countries are concerned about problems in the recruitment and retention of competent educational personnel".*

This general statement was then developed into statements of immediate objectives, which were to be realized through four major projects. Project 2: Content, materials and programmes for initial and continuing training was the area in which this particular activity was included. This activity, involving wide regional participation, was seen only as the starting point. The purpose of this particular report is to be that starting point, to serve as the focus for commissioning national, regional and international studies and for the training of specialists. The report and those studies will be disseminated by ACEID through the Associated Centres and will be the basis in their turn for the production of training manuals, the initiation of training workshops, and the continued evaluation of the total process.

While this process itself is very broad, the initiative for the actions described began even earlier. In January 1980, APEID sponsored a regional seminar, NEW PERSONNEL PROFILES in Relation to Changes in Society and Educational Systems. It is the initiative of that seminar which is continued here, but in the context of an even greater sense of urgency.

Procedures

This meeting was preceded by the circulation of the report of the 1980 regional seminar to all participants, together with national case studies. Participants were then required to prepare two documents:

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*Work Plan of APEID for the Third Programming Cycle, 1982-86. Unesco ROEAP, Bangkok, 1981

- a critical review of the Regional Seminar Report;
- a brief national survey of relevant research and evaluation.

These documents, and the presentations by participants were the basic for the beginning of this workshop. The findings, by the group, resulting from the analysis of these papers are presented in the following chapter, Overview.

The conference then broke into small working groups to identify and reflect on common concerns in relation to the preparation of educational personnel. These concerns are identified and discussed in Chapter Three.

Chapters Four and Five take up more specific issues: the procedures for the development of profiles and training activities and the planning of future activities following this workshop.

Conclusions

The real success of this design meeting will depend on the extent to which others take up the tasks and convert them into specific and worthwhile outcomes. The expected outcomes on the conclusion of the project are listed below.

i) Guidelines on the preparation of personnel profiles and training strategies and reviews of case studies of national efforts.

ii) Manuals of training methods and techniques for new programmes.

iii) Portfolios of national reports on personnel profiles and training plans.

iv) Cadres of trained personnel in participating countries.

A workshop such as this is not an end in itself but merely a recognition of universal needs and requirements which we should all endeavour to satisfy.

It is encouraging, however, that in the workshop such as genuine feeling of commitment and shared purpose should arise. That commitment and purpose will be required more generally. Those who have come to the workshop have achieved a deeper understanding of the perspectives and problem of others. In doing so, their own perspect ves and problems have taken on a deeper and more universal meaning.

From this sharing comes a commitment to work, not only at the national level but in co-operative ways, to help solve problems which themselves appear at a variety of levels, national and beyond.

We are conscious of the shortness of time. Many urgent needs are apparent, in this region and more widely. Yet, to meet these problems, there is no short-term dramatic solution. There is only the possibility of improvement by careful planning and prolonged effort.

Chapter Two

PERSONNEL PROFILES AND TRAINING PROGRAMMES - AN OVERVIEW

I. The review reports

In the Design Meeting on Preparing (a) Personnel Profiles, and (b) Training Content, Materials and Evaluation, eighteen papers were submitted by eleven countries, viz., Australia, India, Japan, Malaysia, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Sri Lanka and Thailand and one paper by SEAMES. The papers focused on: i) a critical review of two APEID documents viz., New Personnel Profiles in Relation to Changes in Society and Educational Systems, and Social Change and New Profiles of Educational Personnel - National Studies; ii) a brief introductory note on the documents relating to current practice, procedures, tools and experiences of the country as to the preparation of profiles and training programmes; and, iii) suggestions for the preparation of personnel profiles and training content, materials and evaluation in relation to changes in society and educational systems. While critically reviewing the above mentioned documents, the country papers are unanimous in saying that the reports have given an accurate review of socio-economic and technological changes in the Member States of APEID. Where there are differences between countries, these differences are in degree rather than in kind. The four national studies have appraised the impact of the changing socio-economic order in their countries and have studied the relevance of the prevailing educational systems to meet the changing needs of the respective societies. The studies have rightly highlighted the urgent need to determine the effectiveness of the educational system as a whole to meet new challenges. One observation about the country reports is that some have highlighted the new developments in the educational system but not mentioned the steps being taken to develop new profiles for required personnel. The national studies have, however, rightly focused their attention on some of the common areas having direct bearing on the educational system relating to socio-economic changes occurring in the countries. Some of these common areas mentioned are

problems of rural development, demographic structures, changing value systems and a failure to appreciate the significance of scientific-technological culture.

Issues on personnel profiles

A careful review of the nineteen reports reveals some important issues in the area of new personnel profiles.

a) A major issue is to identify the impact of scientific and technological developments on the educational system and the consequent need to think about the appropriate responses, keeping in mind the experience in training of scientific societies and research and development groups. An important issue is to find out in what way an appropriate scientific and technological culture can develop among the people of this region.

b) Developments in science and technology have their impact on sociological developments also. Political developments, too, interact with sociological developments and both influence the educational system. The issue is to study the impact of all these developments on the new personnel profiles.

c) One need is to assist the management of educational systems continuously to adjust personnel profiles and training programmes in view of planned, as well as unplanned, changes.

d) There is a need to look more critically at the exercise of developing profiles of new educational personnel from the viewpoint of (a) congruence, (b) emphasis on implementation, and (c) study of constraints.

e) It is necessary to develop a methodology for developing new personnel profiles in the absence of any earlier experiences.

f) There is the possibility of an overlap between the required patterns of behaviour of different categories of new educational personnel.

g) It will be useful to make a classification of problems necessitating the need for changes in the educational system.

h) There is a need to make changes in the provision of educational resources simultaneously with the anticipated changes in personnel profiles.

i) An important issue is to determine the priorities for developing new personnel profiles and organizing training programmes.

j) It is important to renew the existing organizational structures preparing educational personnel and to establish alternative structures to prepare educational personnel with new personnel profiles.

k) An appropriately developed future orientation is required to determine the profiles of educational personnel and to influence their training.

l) One underlying issue underlying a number of papers is the need to examine the capacity of existing systems of management to cope with the new demands on the educational system. It was felt that political developments and political commitments require greater involvement of people at all stages of the educational ladder and particularly at the lowest rung of the system, viz., the elementary schools in response to scientific and technological change.

Scientific and technological developments have created the need for popularizing science and preparing persons who can critically discuss the implications of science and technology within the community. The need is to develop a science and technology culture in ways in which society can derive genuine benefit from these developments. Training programmes and training methodology in scientific societies and R & D organizations have developed certain models from which the educational system can benefit.

Apart from scientific developments, there have been sociological developments in Member States. The first generation literates are emerging and a new type of social and political commitment is seen in the Member States to take education to the disadvantaged sections of the society. These developments have resulted in the need for major alterations to many personnel profiles.

All reports highlight the need for the educational system to provide an adequate and satisfactory response to

the socio-economic and technological changes in society. The reports are in agreement that the varied nature of social demands require a plurality of educational personnel. The latter should not be confined merely to one or two categories such as a teacher or a headmaster, but should include a variety of personnel viz., teachers, supervisors, principals, curriculum specialists, educational technology specialists, evaluation experts, special education teachers, managers of educational institutions, and guidance counsellors. The need for this plurality is seen not merely in the categories of educational personnel but also in the new roles ascribed to the teacher and other educational personnel. It has been pointed out in more than one report, that in view of the multiple resources of learning, the new teacher, the curriculum specialist or the educational administrator will have to redefine his or her role as against that when the school was recognized as the only available resource for learning. The new developments demand that the education of the child be a continuous process both outside and inside the school; the teacher's role in this process is to co-ordinate the experiences which the child receives in informal, non-formal and formal situations. The newly ascribed role of the teacher simultaneously changes that profile as well as that of the teacher educator who prepares the new teacher and of the supervisor in day-to-day contact with the teacher. It is only the new educational personnel, with clearly developed profiles of traits, patterns of behaviour and roles, who will be able to assist in the development of a satisfactory educational system in response to the socio-economic changes in society.

The preparation of profiles

The whole exercise of profile preparation needs to be governed by certain important features. One feature is "congruence" between the regional socio-economic scene and the set of personnel profiles envisaged in the national context of each individual country. The second features is "emphasis on implementation" rather than a mere theoretical formulation of a new set of profiles. The third feature is the "study of constraints". These constraints prove barriers to the implementation of innovative activities. The reasons may be administrative and/or attitudinal. These reasons need to be thoroughly probed to overcome constraints which impede effective implementation of reforms.

The problem of a methodology for developing profiles of new educational personnel and new profiles of existing educational personnel has been discussed in some of the papers. One viewpoint stresses the need to emphasize the state of existing profiles of educational personnel and the major obstacles, if any, in the way of implementation. One cannot logically suggest a new set of profiles unless the existing situation has been analysed and weaknesses and shortfalls in the system identified. It has been emphasized in different papers that a formulation of guiding principles for determining personnel profiles is needed. Change specifications and analyses of new tasks for new profile requirements are indeed very useful exercises at the theoretical level. However, the derived roles and profiles, especially of teachers, need to be reorganized to suit the constraints of existing socio-economic situations; they should not be detached from the actual school situation obtaining in developing countries.

The problem of a methodology for developing new personnel profiles has been discussed in two papers. In one of the papers, it has been pointed out that there is a danger of neglecting the inter-connections between the profiles of different categories of educational personnel. Experience and research have shown that there is a great deal of overlap between the functions of a classroom teacher and a curriculum worker. Teachers, by necessity, are curriculum developers and likewise specialists in curriculum must be prepared to be teachers and to interact with teachers. Again, in the development of curriculum materials and approaches, teachers and curriculum specialists penetrate each other's domains. One paper suggests job analyses of the existing educational personnel as a useful tool to develop profiles. In cases where a new category of educational personnel is envisaged, the exercise of developing new profiles, though a continuous process, may be split into two phases. In the first phase, a tentative profile may be developed on the basis of tasks to be performed by the educational personnel as envisaged by the planners. The second phase involves modifying and finalizing the profile on the basis of actual observation of the person on the job and receiving feedback through the process.

The question of properly classifying socio-economic problems and arranging them in a hierarchical manner has been discussed in one paper. Agrarian problems need adequate focusing in view of the fact that a large number of Member States of APEID have a predominantly rural

population. It would therefore be desirable to classify distinctly the problems of various groups in society. As the nature of socio-economic problems will influence the educational system, this type of classification and re-arrangement has been recommended as necessary in one paper.

It has been further indicated that the process of developing new profiles for educational personnel should be accompanied by the provision of new educational resources. The change of educational personnel profiles cannot be put into operation effectively unless some changes in educational resources are also simultaneously conceived. The problem of changes needed in the educational system as a result of socio-economic changes needs to be tackled in its entirely.

One paper has recommended the need to modify the description of personnel profiles. Rather than giving only desirable traits, it might be better to specify the desirable roles. While recognizing that detailing of desirable traits or behaviour would be an endless task, many papers have mentioned that an exercise to develop the profile in as much detail as possible should be attempted, through logical analysis of the task to be performed and direct observation of the person on the job.

The need for a large number of new categories of educational personnel may be felt. But in the absence of adequate financial resources, it would be necessary for each country to survey the needs of new educational personnel on a priority basis and then plan training programmes after developing the new personnel profiles.

The existing training organizations need restructuring, renewing or even completely overhauling. This is true especially for teacher education institutions. These institutions need much more input if they are to discharge satisfactorily their function of developing new training programmes and methodologies for the new personnel profiles.

Responses to future change.

The last issue suggested is that, as the teachers in schools today are preparing children the major part of whose life will be spent in the Twenty First Century, they should understand the implications of the future. This is true, not only for teachers but for all educational personnel.

Future scanning is a tool to prepare youth for the future. It is further suggested that knowledge about the process of social change and the processes of what makes societies grow and develop is not merely the task of a sociologist but should constitute an input in the training of all educational personnel. And finally, the futuristic orientation of educational personnel requires the total understanding of the educational and social implications of technology.

II. The development of personnel profiles

A number of suggestions have been given regarding the principles to be followed for developing personnel profiles.

a) The process of preparing personnel profiles has to be seen as continuous process as society is continuously changing. There is a need to anticipate the needs and the desirable features of society a couple of decades ahead and to develop educational personnel who will be able to prepare children for the future.

b) The process by which the general statements of personnel profiles are given operational meaning through the design of courses and production of materials should be considered very important. The profile once developed should not be considered as final and the educational personnel implementing the tasks should have freedom to modify the profile on the basis of experience and societal changes.

c) Before new profiles are developed, existing profiles of educational personnel should be thoroughly analysed with reference to the existing arrangements and with a view to understanding the existing situation in an effective manner.

d) While preparing profiles, and exaggerated list of unachievable roles and behaviour should be avoided; they would be self-defeating.

e) The order of profile priority should be consonant with the order of national concerns.

f) Profiles should be linked up with a system of incentives and accountability.

g) It is essential that profiles should not be prepared on the basis of planned changes only. In this regard it should be remembered that we are also dealing with unplanned changes both in formal and non-formal settings.

h) There should be an in-built programme of revising the profiles in tune with the socio-economic changes.

i) A sound machinery for evaluating the programme of developing and implementing personnel profiles should be set up.

III. Curriculum development for educational personnel

Suggestions, though not explicit, have also been made in the area of curriculum development, methodology and needed research in the area. The suggestions for curriculum development are as indicated.

a) It may be considered that there will be an overlap between the profiles of various educational personnel. Consequently, there would be an overlap between the curricula for training various categories of personnel. A curriculum specialist, an educational technology specialist or supervisor has to be well acquainted with the functions of a classroom teacher. There may, therefore, be a core of behaviour and skills common to various personnel and there will be a curriculum which will be specific to a particular category of educational personnel.

b) Curriculum development may be more field-oriented than theory-oriented. It has been suggested implicitly that more emphasis needs to be given to practical work. Care has to be taken that there is adequate transfer from the training situation to the actual work situation.

c) Training of educational personnel, other than classroom teachers, may be multidisciplinary in nature. Advances in behavioural science should be utilized in the training of the various categories of personnel.

d) Training materials should be based on practical situations, should indicate the full range of needed references and should be structured so as to accommodate to a variety of different situations and approaches.

e) Productive skills, directly related to the socio-economic phenomenon, form an essential component of the training programme.

f) Training materials should use local community resources, and should derive from the cultural content in action.

g) Training programmes should use case study approaches, methods of training based on the principles of group dynamics (seminars, workshops, etc.), internships, simulation exercises, etc.

IV. Possibilities for research

Some suggestions indicated the need for research programmes to give a sound base to the programme of profile development, training and evaluation.

a) Identification of skills required by various categories of educational personnel and the methodology of developing these skills effectively and economically is one important area of research suggested in the reports.

b) The introduction of new categories of personnel in the educational system may require continuing field studies for the acceptance of these innovative ideas by the system. Both monitoring and evaluating the innovation should be carefully studied and the impact of this programme in improving the educational system should be studied.

Outcomes

The issues raised and suggestions made in all the papers were subjects of discussion in the plenary sessions as well as group meetings. The discussions led to the crystallization of issues under five major headings: (i) scientific and technological developments; (ii) sociological developments; (iii) developments in educational science; (iv) information and mass media perspectives, and (v) managerial perspectives.

The major outcomes of the deliberations were as follows:

a) The development of awareness on the part of the delegates of the Member States of the need to plan systematic programmes for developing new educational personnel profiles, training programmes and materials and to relate these programme to the educational developments already under way.

b) There is an urgent need to prepare new personnel profiles for teachers and other personnel involved in 'distance learning' programmes in view of the national programmes of 'universalization of education'.

c) Other programme areas of APEID also call for review of the personnel profiles and training arrangements currently applying and for the preparation of new categories and the development of new structures. These areas include 'promotion of scientific and technological competence and creativity', 'education and work', and, 'co-operative studies, reflections and research with particular emphasis on future orientation'.

d) It was pointed out that amongst the categories of existing educational personnel, no provision of training existed for preparing school principals and teacher educators. These categories occupy key positions in the hierarchy of educational personnel and their training needs require a high priority.

e) The deliberations focused on the need to provide research support to the programmes of developing new personnel profiles. In the Member States, a number of research studies have been completed. The findings of these research studies need to be organized and made accessible to provide a research base for the profiles of various educational personnel.

f) The meeting desired particular attention to be given in these exercises to meeting the needs of deprived sections of the population, to develop wider participation from the community in all phases of the process of scientific and technological development and of preparation for possible futures.. The research findings such as those on human development, determinants of the performance of children at the end of the first stage of education,

methodology of institution building, factors influencing organizational effectiveness, have bearings on the programme of renewing the educational system so that it can meet the challenge of time. Apart from scanning the results of available research, there was a general opinion that the efforts at streamlining the educational system should be accompanied by studies on problems identified during the process. The programme of implementing new personnel profiles may be accompanied by simultaneous evaluative studies.

g) One need felt to be u gent was to have centres with specialized programmes for the training and development of new educational personnel. The meeting proposed that the Member States might take up national studies in some areas and develop new personnel profiles, training programmes and training materials. Some delegates proposed tentatively to undertake national studies in the area of "Building effective organizations through the active involvement of people; distance education; staff development programmes, interaction of societal changes and educational system; system reorganization relating to future changes and community participation". It was felt that these countries would develop specialized programmes in selected areas and would serve as focal points from which other Member States may benefit. APEID may help this activity by a programme of exchange of resource persons, and national and regional training workshops.

Conclusion

An overview of nineteen papers and the deliberations on the issues indicate that the Member States have been aware of the socio-economic changes and the need for national educational systems to provide adequate responses to these changes. Whereas it is true that new personnel profiles are needed, it is equally true that the profile changes may not be uniform, in all countries. They will be culture and society specific on the one hand and even profession specific within a country. Care has to be taken while developing the profiles that they are not at an unreal level nor difficult to implement. Implementation needs to

proceed simultaneously with the process of developing the profiles, and of keeping the requirements of the next two decades in view.

Chapter Three

MAJOR COMMON CONCERNS IN THE DEVELOPMENT OF EDUCATIONAL PERSONNEL

I. Scientific and technological perspectives

The development of science and technology and the strong likelihood of major social changes in the future have a continuing impact on the requirement for different types of educators as well as the content and methodology of teaching and learning systems. These pose a number of possibilities for preparing personnel profiles. In order to realize these possibilities, there is a need for an appropriate response to science and technology by developing countries. Some of the implications of such a culture are worth considering.

A. Implications of Science and Technology

1. Production systems had a tendency towards centralization of industry and its concentration in urban centres. The new scientific and technological advances, however, have brought possibilities for the decentralization of production systems. Such decentralized technological and industrial development is essential for securing greater equality of life opportunities for the people of a country. It would provide growth nodes in larger networks of industrial and technological activities in rural areas of the country, and would bring science and technology within the environment of rural school systems. This would have a significant influence on education in such areas.

2. Technological and scientific developments have effectively made our world more accessible. In terms of individual countries, isolated and remote areas can now be reached through the mass media. The utilization of TV, radio, satellite communication systems, and the future expansion of communication technology, will have far-reaching effects on educational systems within countries and perhaps among different countries of a region.

3. In the past, science and technology has been an instrument of domination of third world countries by more developed and industrialized nations of the west. If the gap between the have and the have-nots is to be minimized in the future, the dissemination of science and technology on a broader basis is necessary. Third world countries are increasingly realizing that unless they are developed in the field of science and technology, the future of their people will be rather bleak.

4. The growth models earlier adopted in the third world countries are now being replaced by new models of development. There is an increasing awareness of the problems arising out of consumerism and ecological waste and also of the imbalance caused by the scientific and technological revolutions of the past. Education in this context needs to take a multi-disciplinary integrated view, taking into account social and value concerns as well. Integrated views of science should take into account the relationships and social responsibilities of science and technology to human systems.

5. Unless a minimum critical amount of resources is invested in scientific and technological research, the desired futures dependent on scientific and technological advances and developments may not take place. The extent to which resources can be mobilized in adequate dimensions in developing countries, and the mechanism to be designed in the future for the sharing of research findings in science and technology remain basic issues.

6. Information in science and technology is an important industry in itself. Whereas in the past, the west either sold finished products of technology and later on machinery and equipment to the third world, the future may see the development of an information industry, where technological and scientific information will be bought or sold on an increased scale.

B. The effects of scientific change on personnel needs

The impact of science and technology development in the preparation of personnel profiles is substantial. Some of the main themes and factors identified were as follows.

1. There is an increasing need to sensitize the population of a country to present processes and trends in

scientific and technological advances in order to stimulate active thinking and participation in scientific and technological developments in the future. The essential importance of human beings needs to be continually re-emphasized in a world of future technology. The technological society should have mechanisms to promote the cultivation of the imagination and the creativity of its people. Programmes need to keep human and social needs in mind, in any development of greater technological awareness and capacity.

2. National surveys need to be conducted in order to understand and analyze trends and implications of technological processes. Information from such surveys should be made available to policy formulators, decision makers and people at all levels in the country. This may indicate how alternative futures could be identified and controlled as well.

3. Science and technology has increased productivity in agricultural and manufacturing industries and this has to be taken into account by education. Scientific innovations in genetics will have an impact on population control as well as in fields such as animal husbandry. The breeding of new strains of food crops will have an impact on agriculture and the availability of food. These factors will constitute the changing environment within which education will take shape. Education may need to provide an alternative to the existing paradigm of an acquisitive society and provide avenues within society to make better use of leisure time.

4. Scientific and technological development has, to some extent in the west, privatized different types of social activities. The leisure made available to people in those countries and a wide range of technical gadgetry has permitted consumers to be producers also of good and services required for their own consumption. The roles and occupational tasks as well as the duties of the two sexes have also undergone substantial change. The recognition of such changes will require different contributions from the educational system.

If the economic needs of the people are increasingly satisfied, other needs will take priority and new cultural patterns will tend to emerge as a consequence. The role of education in shaping the nature of this cultural environment

is important. For instance, teachers in schools may emphasize more such things as character development, responsible citizenship and leisure education, as technological aids in education make it possible to extend the teaching role in the future.

5. It is sometimes believed that developing countries cannot afford new technologies or to innovate in more appropriate forms of scientific and technological developments. However, in many products of manufacturing industry, sometimes 50 per cent of its costs constitute costs of obsolescence, competition with others and of advertising. Cost structures which are based on social equity would make scientific and technological endeavours far less expensive in the future.

6. Special cadres of educators may need to be formed to discharge three types of activities: (i) to assist with natural and social science curricula in schools and teachers colleagues; (ii) to undertake tasks of research and development in the field of scientific planning; and (iii) to perform linking functions between systems of science and technology with the mass media, making people aware of the implications of scientific and technological developments and of governmental policies.

7. Integrated education techniques combining mathematics, logic, use of calculators, philosophical and ethical frameworks, may need to be intensified for the creation of new inter-disciplinary studies as a part of school and teachers college curricula. It was noted that Japan has several important programmes in this direction.

8. Methods of teaching may also undergo considerable change as learning by rote will be replaced by teachers emphasizing acquisition of access to sources of information for the students. Use of computers will also considerably affect teaching subjects in the schools and elsewhere.

9. Education itself may tend to be made more available on an individual basis by the increasing use of computers, television and audio-visual technologies. In this context, the relevance of schools and of institutional learning in its present form may undergo considerable change. The expansion of the micro-chip industry, and the further development of communication media at lower cost will stimulate this trend. Pupils may, perhaps, in the future, contact

teachers whom they select for interaction in specific skills or insights. This flexibility of learning by students selecting their teachers as well as the learning modules which they want, will provide considerable flexibility within learning systems.

10. With a view to diffusing scientific and technological culture in a society, national institutes of technology and science could play an important role to orient educational supervisors, curriculum specialists and school principals as well as opinion leaders in a society. Such orientation sessions could provide information on science and technology and its relevance to education. It was noted that in India this type of interaction has already been initiated. In addition, the views of members of society may be shaped by discussions and dissemination of publications. The Indian experience also indicates the importance of linkage of science and technology by multi-institutional projects.

11. There is need for educational institutions to interact with other agencies in the society dealing with science and technology in order that the educational system could benefit and be better informed of such activities. Pre-service and in-service training of educationists should enable access to scientific extension systems.

12. Workers in research and development systems and industry should co-operate to assist in the preparation of textbooks and materials for science teaching in schools.

13. The organization of teachers colleges and schools should reflect the needs of science and technology in the future. Present patterns of organization may need to change.

14. Science and technology education will need to help to shape the personnel profiles both in the content and process of facilitating learning as indicated in the above paragraphs. There will also be a need for a new type of link-cadre to disseminate science and technology in the environment for creating a technological culture in the society.

Personnel profiles of educators should include the following roles.

a) Integrating different fields of science and technology on the one hand and combining them with ethical and humanistic disciplines on the other.

b) Developing skills in new methods of facilitating learning in science and technology and also managing new technological modes of learning.

c) Building a variety of useful links with outside organizations, with the community and with the mass media.

II. Sociological perspectives

A. Social trends affecting education

Ultimately society's aims are the aims of education; education intervenes as a means to society's aims. Education, with its new personnel and its organizational profile, must respond to emerging social trends.

1. Social change has undermined the relevance of some of education's programmes and organization.

2. New expectations, especially for more science and technology in society at large, oblige educators to undertake on-going responsibilities to stimulate and develop a science and technology culture.

3. New sources and media for information mean that the teacher is no longer the sole source of knowledge; nor can the conventional school system expect to remain the dominant apparatus of education.

As a consequence educators can expect new types of students and new requirement from those students. They can expect to operate curricula that are less constraining, and have more opportunity to choose subjects, to experiment, to explore real life problems, to discover creative outlets, and to promote personal development. For themselves, educators may expect to heighten their own awareness of emerging futures and their social implications, to welcome new kinds of colleagues to share education, especially life-long education.

B. Population factors affecting education

The meeting recognizes that population factors and demographic changes are an important area of awareness and knowledge to emerge from educational processes in the future. Aspects of population education can occur at various points in the curriculum and should be recognized by all teachers. While recognizing that each country should adopt a strategy for population

education consonant with its own beliefs and social philosophies, the meeting recommends supporting the concept of integrating population education within the curriculum. There should be an eventual unification of the separate elements for school leavers and a provision of appropriate training for all teachers, curriculum developers, and other educational personnel.

III. Pedagogical perspectives

Much of the current orientation of teaching and teacher education is associated with past traditions which are being affected by social needs. At the same time, the views as to the nature of education have changed. Changes in social requirements and in educational science both affect future policies.

Changes in curricula in accordance with social needs cannot be successfully planned and implemented without appropriately prepared teachers and teacher educators to adapt to new challenges. A study of the developments in the pedagogy of education contributes to a delineation of the tasks and functions required of education personnel to enable them to cope with the challenges.

Examples of some national developments

Some examples of major developments in a number of countries are cited to illustrate the educational changes which are occurring.

In India, two major developments cited are: the introduction of Useful Productive Work as an integral part of the school curriculum, and the development of Satellite Inset I-A*. In Thailand, developments cited are the establishment of the non-formal education department to take care of all out-of-school youth and the modification of the secondary school curriculum in some areas to orient students to the use of natural resources. In the Philippines,

*Satellite Inset I-A is a multi-purpose communication satellite put into a geo-stationary orbit by the Government of India. The Satellite will be used for educational programmes in selected regions of the country.

the recently approved new elementary school curriculum (NESC) is addressed to reducing disparities in educational opportunities and raising the overall quality and efficiency of elementary school education. There is also a revision of the secondary curriculum focusing on vocational education.

These changes are illustrative of major changes in outlook with respect to education, changes relating to educational theory but having very practical implications for the preparation and development of educational personnel. Some idea of past developments in the theory of education is important as is a projection of probable developments over the next two decades.

Changes in concepts

The concept of education has developed during the century from something limited to the classroom towards a more extended concept with education being a continuing process, taken up as and when the need occurs. In such a view, education is a continuing life-long process. This is a major development in the concept of education and this concept will further develop over the next two decades where society will become "a learning society" with learning resources selected on the basis of need.

With the rapid and continuing growth of knowledge, and changes in the access to knowledge, "learning to learn" has become a more important purpose.

The meaning of curriculum has acquired new dimensions. It is now the totality of planned experiences provided by an institution. The curriculum is to cater to the needs of the individual and of the community. A major task of the future curriculum will be to develop a greater variety of forms, with multiple means of access. This will involve learning materials of a self-instructional nature, the assistance of consultants and the availability of a broad range of library resources. The future curriculum will have a strong component of productive work and community services as an integral part of learning activity. The curriculum will be planned to assist the learner to be a self-reliant, co-operative citizen. The curriculum will also be sensitive to community needs, with schools needing to make stronger links with their community.

The concept of teaching has acquired new meaning - with the growth of educational technology on the one hand, and advances in behavioural sciences on the other. Teaching now aims to develop the learner's capacity to learn. In a similar way, the scope of evaluation has broadened. From the narrow concept of measurement for grading, evaluation is now considered as an important instrument for improving learning, for modifying learning materials and learning processes. From an externally executed and individually undertaken exercise, evaluation now includes the capacity for individuals and institutions to analyze and monitor their own progress.

Changes in programmes

A growing quantity of experience has shown that training programmes based on lectures as a one-way communication mode have not always proved effective. Training programmes to be really effective have to adopt approaches such as small group discussions, the case study approach, internships, field operational seminars, etc. Research has shown that it is possible to modify teaching and learning through a proper use of various approaches such as micro-teaching, mini-courses, simulation, role playing etc. These findings have their own implications for the role of teachers, teacher educators, supervisors and administrators.

Productivity changes have resulted in shortening the working week. It will be a responsibility of the school to provide the learner with adequate knowledge as to how to use leisure time in a self-satisfying, socially useful way.

These developments have resulted and will further result in changing the roles of existing educational personnel, viz, teachers, principals, supervisors, etc. These developments will also need new categories of educational personnel such as co-ordinators of community services, teachers of vocational subjects, and educational technology specialists. The existing education personnel have their functions already more or less clearly defined. It is, however, true that no formal training programmes exist for a variety of educational personnel. With the growing number of various categories of educational personnel, need will arise to define clearly their functions and to plan and organize training activities for them.

IV. Information and mass media perspectives

Technological, sociological and pedagogical perspectives all have a bearing on the development with respect to information in current societies. Education needs to take account of the "information revolution" in two ways. First, the subject-matter of education is being substantially altered by the growth of information and the increased means of access to that information. This has meant that the mass media and their influence are increasingly becoming a substantial study in education. Mass media sometimes has social and educational effects that are not deliberately educational but are incidental to other purposes.

Second, the processes of education need to alter in major ways to take account of the new media possibilities. For example, distance education is one means by which education seeks to harness new technology to new tasks. Some of the important aspects of distance education were identified.

1. There is a greater capacity for education to extend its reach, economically and effectively. It will extend its range to large and more culturally diverse populations, many of whom are adult.

2. The development of interactive teaching at a distance enables new educational clienteles to respond to educational initiatives rather than to be passive receivers only.

3. These means reach people whose education has not previously been provided for. They also provide major sources of mid-career 'continuing education', enabling many professional people to maintain and update their knowledge and skills. It will also enable others to develop new knowledge and skills for more vocational mobility. Distance education is target-specific but has a wide variety of target clienteles.

4. Distance programmes sometimes resemble the formal programmes regularly available within institutions. Other programmes are short-term programmes, and use imaginative means that may transfer with value into other types of teaching programme.

5. Other professional people other than educators use these means and thus share in society's whole educative enterprise. The links thus formed are of value to education.

6. Distance education aimed at specific groups can be a valuable form of training but this will involve carefully developed and focused programmes.

While the utilization of these means is a national matter, there is scope for international co-operation in securing expensive equipment and facilities. There should be substantial Unesco activity in developing the educational programmes for such outlets.

V. Management perspectives

Four additional management issues have been identified as crucial in the preparation of personnel profiles. These issues relate to the co-ordination of the system, the organizational profile, the incentives and reward structure, and public participation in system development.

A. Co-ordination of the system

In the discussion of educational personnel, there are several common problems that can be identified and highlighted. First and foremost there is an apparent lack of effective planning of personnel training programmes, especially at the level of in-service training. This trend has led to the practice of personnel training in a poorly integrated manner.

The lack of co-ordination between training agencies or centres which is thus apparent often tends to result in the absence of continuous feedback. This feedback is necessary from the component agencies to the central agency. The general lack of effective co-ordination has often led to the absence of two-way communication between the central and the component agencies. Downward communication tends to be more common than the reverse. At the inter-institutional level, it is also apparent that many educational systems do not have the flexibility whereby highly qualified personnel could be given the opportunity to work at the universities and vice-versa. In a similar manner, the inflexibility has often led to an apparent lack of communication between professionals in education and in other areas.

In terms of the development of educational personnel such communication is highly desirable.

Suggested possible solutions

1. Positive efforts toward establishing a network of communication for the purpose of the development of personnel profiles is highly desirable and a matter of urgency. This activity should be at a variety of levels, from the local to the international.

2. Effective co-ordination between programmes of personnel training at the college level and those at university level should be established and promoted. In order that the communication channels between those who generate knowledge at the universities and those who prepare the personnel at the teacher colleges might be effective, a two-way system of communication should be established. In this way, mechanisms and channels could be explored to effect a network wherein there is a continuous flow between the training institutes at the universities and the colleges.

3. Personnel training programmes, with continuity and with a logical sequence and a practical orientation, should be important parts of in-service training. Similarly, a clear delineation of role differentiations between the college and the university level institutions for the production of the education personnel should be stipulated in order to promote efficiency, co-operation and interchange of knowledge and experiences. In addition, it is also felt that there is a great need to develop effective communication channels between educational training agencies and the agencies of other professional enterprises. The sharing and interchange of experiences and ideas among professional agencies is considered pertinent in the development of a network for educational personnel.

B. Organizational profile

There are several problems of organizational profiles which are commonly experienced in education systems in the region. Some personnel training institutions at the national level do not have a clear philosophy to set the directions and tone of their modes of operations. Generally there is a broad educational philosophy that is taken for granted as the philosophy of the personnel training

institution. Since there is an apparent lack of a specific philosophy of the personnel training institutions, objectives in operational terms are generally not clearly stated.

The above tendency has often led to roles of the personnel training institutions not being clearly defined. Functions of the trainers and trainees are not well understood by both groups. Personal advancement becomes the primary objective, and professionalism in the educational profession is often jeopardized.

Suggested organizational features

1. The goals and policies shared by different levels of personnel in the organization should be related to those of their client group. If this is not so, how is goal convergence achieved and what are the mechanisms for resolving goal conflicts?

2. There needs to be a correspondence between the tasks of the organization and its structure. If educational organizations are to be innovative and not mechanistic in discharging their work, then the structures should be more related to the task to be performed. Project type designs with task forces may be appropriate to stimulate and motivate personnel in many cases.

3. Information and communication patterns should be free flowing both vertically and horizontally. Decision-making patterns should be encouraged which involve a wider range of participants.

4. Personnel policies in the organization should reward innovations and creative thinking to improve education structures and processes.

5. Team building and the development of co-operation are important in the strengthening of the innovative capacity of an organization.

6. The management of organizations and the nature of its procedures need to stimulate innovations. Due weight should be given to specialized knowledge as well as to organizational position.

C. The incentives and reward structure

The reward system is only one component that can promote motivation and commitment of the educational

personnel. Job satisfaction and a sense of professionalism are equally important factors in the promotion of professionalism in educational personnel. Similarly, societal recognition of the education profession is just as important as other social rewards. Points to be kept in mind include the following.

1. A system of 'career paths' is required for the educational personnel who have increased their professional experience, competencies, skills and expertise. Hence, continuous programmes and well-facilitated arrangements for in-service training are necessary mechanisms that could bring about greater motivation, job satisfaction and professional commitment in the new educational profile.

2. There is an apparent lack of appreciation among policy-makers of the need for personnel to improve their potential through developmental programmes and activities. This state of affairs can often lead to a general feeling of frustration. Policy makers in education should recognize the importance of extra expertise, knowledge and experience gained by educational personnel through in-service programmes and courses.

3. The application of seniority basis in the promotion of the personnel from one status level to another has thwarted, to a certain degree, the efforts to increase motivation and commitment of the educational personnel.

4. There is a strong tendency in some education systems whereby the administrative aspects of the organization have tended to dominate the professional areas. This can lead to the down-grading of the importance of educational goals, and the over-bureaucratization of the education system.

5. Professional organizations in education have often not been given the responsibility appropriate to their status and aspirations and the role they could play in the promotion of professional commitment of the personnel in many education systems in the region.

Suggested possible solutions

1. The incentives provided for educators should give due recognition to appropriate qualifications and professional expertise.

2. The value of attendance at in-service programmes should be recognized in appointments and promotions.

3. Professional educational organizations should be encouraged to bring about greater awareness, motivation, and professionalism among those in the teaching profession.

4. Supervisory and inspectorate functions of some personnel should not be over-emphasized. Instead, consultative forms of communication and arrangements should be maximized in order to promote and upgrade the professional competencies and commitment of the personnel.

D. Public participation in system development

Public involvement is essential for the effective formulation of personnel profiles of the education profession at all levels.

The curriculum for the preparation and development of educators needs to be enriched and oriented not only towards academic content and skill development but also towards the kinds of needs, visions and aspirations of the public.

The lack of public involvement and participation is rooted in the situation whereby educators are given high esteem so that the job of education is considered as their sole prerogative. Educators must learn to share this task more widely if they are to develop a more general public support for education.

Suggested possible solutions

1. Surveys should be conducted of the views of the public on the roles and functions of personnel in education.

2. There is a need to broaden the perspectives and horizons of educators and to develop an ability to define and evaluate their changing role in the context of future demands.

3. Revitalization of the functions and roles of parent-teacher associations should be encouraged by national educational agencies.

4. Encouragement should be given to educational personnel to be open-minded in their approach so that they are more tolerant of constructive criticism, suggestions and ideas from the public.

5. Involvement and participation of people, especially parents who have children in the school system, should be encouraged in major educational aspects of the schools. The important role that parents play in the aspirations and achievement of their children can be used effectively in such support.

Chapter Four

SUGGESTIONS ON PREPARATION OF PERSONNEL PROFILES, STRATEGIES, CONTENT, MATERIALS AND EVALUATION OF TRAINING PROGRAMMES

The meeting sought to identify different categories of educational personnel and to suggest guidelines for the preparation of personnel profiles, strategies, content, materials and evaluation plans for those categories. It took account of the personnel profiles for some categories of educational personnel proposed in the Report of the APEID Regional Seminar 1980 on New Personnel Profiles in Relation to Changes in Society and Educational Systems.

The meeting felt that there were many categories of personnel that could be considered. However, some changes in personnel profiles arise from changes in organizational structures. These may be from changes in the national education system as a whole, or from the emergence of new functions in the system or from the reshaping of particular elements in the system. The personnel implications of these changes should be taken into account.

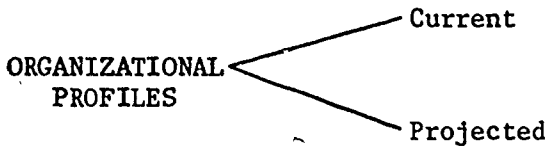
Some categories of personnel can be grouped together as in Table 1. Those personnel involved in education's external relationships and services were considered together, as were three groups of various functions within the formal education system which shared some common characteristics.

a) External relationships and services. This group included community leaders participating in school management, parents and community-based auxiliary teachers and specialists in professions and organizations outside formal education. Some of these were in science and technology and some in mass media. These specialists can help to accelerate the responsiveness of school and society to development and, in particular, to science and technology.

b) Policy development and managerial personnel. Given that public policy ultimately depends on decisions of government in response to their citizens, and given that the long-range factors in education decision-making

Table 1

PROFILES, ORGANIZATIONAL AND PERSONNEL



PERSONNEL PROFILE

External Relationships and Services

- Community development leaders
- Community resources people
- Organization resource people
- Science and technology liaison
- Media specialists
- Parents
- Auxiliary teachers

Curriculum Services

- Teacher educators
- Curriculum designers/ evaluators
- Educational technologists
- Information specialists

Policy Development and Managerial Personnel

- Educational administrators
- Educational planners
- Educational supervisors
- School principals

Operational and Student Services

- Teachers
  - School
    - Teacher advisors, e.g. reading, music
    - Guidance counsellors
    - Career guidance counsellors
    - School librarians
    - Distance educators
  - Technical/ vocational

depend on how competently planners and senior administrators advise education ministers, the personnel profiles for planners and administrators, and at another level of implementation, for supervisors and school principals, become crucial.

c) Curriculum resources and services. The development of curricula to reflect new ideas, knowledge and attitudes requires appreciation, responsiveness and skill among various specialists within the education service, i.e. among curriculum designers and evaluators, educational technologists, teacher educators and information specialists, some of whom function nationally but others regionally, some of whom work in state-sponsored institutions but others in autonomous or private institutions or systems. The implementation of new personnel profiles affects a growing number of specialists in these organizations.

d) Operational and student services. This sector contains not only some quite specific categories, e.g. 'school librarians', it also contains the largest and most heterogeneous category, 'teachers', a sub-category of teachers, 'technical-vocational teachers', and a relatively new category, 'distance educators' which proves to be a collection of various complementary but different personnel sub-categories.

As each group of personnel profiles was considered, different emphases emerged that governed the specificity of the guidelines for designing personnel profiles and the strategies and approaches for producing and implementing them.

1. External relationships and services

a) Preamble

The main theme is that the schools as organizations should develop to undertake a larger community role in the diffusion society-wide of knowledge and active appreciation of science and technology. This means that the teacher's responsibilities should be enlarged accordingly, that he/she should share both current and new tasks, some with aids drawn from within the community, others with resource persons from organizations outside the schools or with skilled members of the local community itself, and some with extra colleagues. Some implications for the teachers' own training are described. Since this

organizational situation involves some merging of the roles of teachers and non-teachers, suggestions are made on the preparation of personnel profiles in this co-operative context and a detailed example given of a personnel profiles for auxiliary teachers.

The meeting reiterated that educational personnel at all levels have to become catalytic agents to generate a climate that assists the development of science and technology on the one hand, and is supportive of scientific and technological creativity on the other. Some suggestions emerge at this point.

1) The school should become a multi-purpose centre, attempting to integrate different developmental agencies and to accelerate their co-operation. This would enhance the functional effectiveness of the school. The school would maintain its formal purposes but would be used by several other developmental agencies to interact with the school's natural clientele and the community as their base of development around its locale.

2) In its interactions with children and adults of the neighbouring community, the school would, through co-operation with other agencies, disseminate relevant knowledge and assistance in the fields of health, agriculture, etc. In practical terms, this would mean augmentation of the teachers' strength in the schools with extra teachers or other help from the community itself.

3) If the teacher has to become a multi-purpose person, in a multi-purpose institution, he would need training that is not only academic and pedagogical but one which concentrates on different kinds of developmental activities. For non-formal education programmes, increased emphasis should be laid on developing intensive linkages with the external environment. Human resources at grass-roots level need to be fully utilized; skills such as carpentry, or agricultural operations, can be taught from locally recruited sources. All competencies deserve and should be accorded their due recognition, whether they be verbal or social skills or skills in mathematics, science and technology. Non-formal education personnel are likely to

require a more imaginative and intensive training programme which alerts them to local needs and resources and their development.

4) In the fields of technological information, new educational personnel should be consciously cultivated to help schools and colleges, as resource people, as science communicators and as mass media specialists. Existing educational personnel can also be given training for such purposes and can obtain help from outside specialized institutions.

5) Parents, too, have to learn to appreciate and understand the role of the school as an important agency of the community. It is necessary to seek their fullest co-operation in supporting the education of their children, in taking part in school activities wherever possible, and in lending it support in its community development activities.

6) The role of the auxiliary teachers reflects not only the greater participation of the community in education but the need to reallocate the teachers' professional activities. Auxiliary personnel can be located both within the educational system and outside it. A personnel profile for them illustrates the principles for designing personnel profiles in the external relations and services sector that follows.

b) Designing personnel profiles in the external relations and services sector

1) Approaches. Two approaches are suggested. They are not mutually exclusive.

(a) Task analyses could be conducted on what is required of each category of personnel under consideration.

(b) Successful and less successful co-operative arrangements between educational systems and outside personnel and organizations can be identified in order to determine the

strengths and weaknesses of different arrangements. They may identify also the critical competencies of educational personnel, using external relations and services effectively. The outcomes would be the profiles of structures which are generally successful and the profiles of educational personnel who have been able to use those structures effectively.

These two approaches would help to determine needs for the training of new personnel in relation to specific structures for using external relations and services.

A sequence of operations might then follow.

i) identify external resources;

ii) identify structures and approaches for their use. This would require co-operation with colleagues as well as with outside personnel;

iii) design training and resource materials for orientation of training staff;

iv) organize orientation and the preparation of materials;

v) prepare schedule for co-operative action and periodic review.

2) Content. The content will be determined by each country, by utilizing an approach such as that suggested above. Some broad content areas are illustrated below.

(a) Promoting mutual respect and confidence

i) Develop mutual understanding of societal role of school and the external organization/personnel for national development and of the importance of co-operative action.

ii) Develop an appreciation of changing structures and mechanisms and the need for the co-operation of systems/personnel.

iii) Encourage an awareness of the co-operative role of all the agencies in life-long educational perspectives.

(b) Developing competence in educational processes for outside personnel/organizations

i) An understanding of new developments (such as grading system) and their rationale.

ii) An appreciation of the educational impact of out-of school activities with which outside personnel/organizational personnel may be involved.

iii) An understanding of financial and other constraints under which schools and out-of-school education programmes operate.

(c) Developing competence in school personnel regarding external personnel/organizations and services

i) The educational value/relevance of the missions and activities of external personnel/organizations.

ii) An appreciation of the aspirations, plans and expected impact of the work of external personnel/organizations on the future of the community.

3) Evaluation. This should be participatory. It should emphasize formative evaluation that takes into account the continual renewal of the relationships and co-operative activities. It should be simple and should be used in improving evaluation processes as well as for training in evaluation.

4) Example. A profile for teacher aides is an example of a personnel profile in this sector.

(a) Rationale. In order to maximize teachers' professional activities and to reduce their clerical work-loads, there is a need to provide aid personnel for teachers in various forms. They could be drawn from people in the community needing constructive outlets for their energies. In schools they could work under the guidance of professional teachers as aides to the teachers. At present such aides are not widely used. Frequently they are not systematically inducted when they are used.

They are sometimes called teacher aids or auxiliary teachers.

(b) Role-expectation. Those who are highly educated although unemployed might undertake supervision and guidance of pupils' extra-curricular activities such as clubs, hobbies, correction of home-work, scoring of test materials including the scoring of multiple-choice type teacher-made achievement tests. Those who are less educated might work to maintain school facilities and grounds; or assist teachers during regular class instruction; or undertake school clerical duties.

(c) Training

i) General orientation programme could be conducted by the principal and/or master teachers in collaboration with classroom teachers; this would give some encouragement to the teacher-aide.

ii) Specific job instruction printed and made available to the aide in order to maintain work standards; some oral explanation of specific jobs should be done by the teachers being helped.

c) Action at the organizational level

New structures, personnel, roles: The following action is suggested at the organizational level:

Institution/office	Action
Primary school	At least one teacher to be responsible, oriented as above.
Secondary school	Head of the school, possibly one whole time senior staff member and heads of departments to have responsibility for all, or specific categories of, personnel and organizations external to the institution.

Institution/office	Action
Non-formal education	All staff members to have above orientation, and to understand basics of science, technology and development efforts affecting the community served by the programme, and be aware of the resource persons who could be invited or consulted and whose work the staff of the programme should offer to share.
Teacher training institution	Educational system and its supportive environment to be introduced as an area of study in foundations of education and as a post graduate field of specialization.
Education office	Each one to have a wing, large or small, to deal with external organizations and personnel which can help institutions; to offer training; and to prepare materials. Part of the training may take the form of research, internship in mass media and science and technology organizations, to be arranged and sponsored by those offices. In the higher level offices, such a wing to be responsible for public relations for the educational system, for children, for education staff, and educational programmes.

2. Policy development and managerial personnel

a) Preamble

The emphasis for this group of personnel profiles arises from the fact that personnel at this level are involved in the decision-making processes and can

influence the quality of decisions by the advice and resources they can provide. These personnel profiles are affected by the structure and organization of national systems in the way they recruit, train and update their most senior personnel.

Education policies should not be taken in isolation but in the context of overall national planning. Measures outside the educational system will be required to give proper support to educational programmes if the broader national implications are to be realized.

If education policies are to be fully effective, public involvement is needed at various levels in the decision-making system; and there should be mechanisms for providing feedback to the decision-makers.

For the development and implementation of policy, planners, administrators, supervisors and principals need suitable programmes of training. Once they are established in their posts, this training could be through workshops, seminars and conferences. The content would deal with techniques and methodologies, and with the processes for information analysis for decision-making. In addition to what is provided through short courses, substantial post-graduate courses are also desirable. In relation to all types of courses, there should be development of evaluation systems, vital to proper implementation of programmes and their continued improvement.

A major factor in all these professional categories is management. Major management problems are centred around the task of making organizations responsive to defined goals. This involves an analysis of management practices, particularly those dealing with budgetary and resource utilization. It involves decisions relating to students and teachers, and the planning necessary to make appropriate provisions for them. To change and develop the existing structures requires experimentation and risk. This may be necessary if the organization identifies new goals to be achieved or discovers failures in the achievement of current agreed goals.

b) Guidelines for personnel profiles

The achievement of the objectives of the education plan require expertise in the areas of policy studies and information analysis. They will also require substantial

training programmes. The requirements of training are diverse, consequently the total national capability should be taken into account, making appropriate use not only of the education system but of other relevant systems. This has been exemplified in programmes by some Indian scientific institutions in their outreach to schools and universities.

Planning is a continuous exercise which entails special attention to the balance between short-term and long-term requirements. Two major prerequisites of planning, therefore, are up-to-date information and means of making it available to the decision-makers. These capabilities have to be built into the system at various levels, with effective co-ordination at the national level.

Examples of personnel profile formulation

In addition to the skills and competencies mentioned in the 1980 Seminar Report, several other skills and competencies are indicated:

1) Policy-makers. At the level of policy-makers, the capacity to collect, analyse and utilize relevant information appears to be of high priority. The sources would include critical reviews of materials, research findings and expert opinion on the relevant areas. Recognizing education as a sub-system of the national economy and understanding its inter-relationships with other sub-systems is also necessary for personnel at this level.

2) Educational planners. At the level of educational planners, apart from orientation with policy issues, the personnel profile should include the capability to apply planning techniques and projection methods, to use simulation exercises and to conduct case studies. This will provide a rational basis for making policy decisions as well as for the formulation of plans, targets, programmes and objectives. Among these skills are included the capability to collect, process, store, and reproduce relevant information for planning and decision-making. This will require increasing reliance upon modern computing techniques.

3) Educational administrators. With the spread of education and the growth of numbers of students involved, the scale of administration has undergone a qualitative change in terms of the demands made. In addition to the general functions of administration and maintaining educational systems, there are present-day requirements for such functions as student welfare, sports and hobby facilities, professional workshops for teachers and other educational personnel, and the design and provision of school materials. These require linkages within the education system as well as with other systems and the people involved also need managerial skills.

4) Supervisors. For supervisors, it needs only to be added that they should be drawn from the education system itself and should have a broad perspective on the system. Provision should be made for supervisors to refresh their field experience continuously.

5) Principals. The profiles indicated for the educational administrators apply also to principals at the school level. One major problem requiring urgent attention is the need for mobility from teaching, to and from various levels of administration. This is sometimes made difficult by differences in salary scale, hierarchical structures and the social status attached to different positions.

3. Curriculum services

a) Preamble

The emphasis in this sector is that developments in science and technology, pedagogy, knowledge about society and social relations and managerial science have influenced tremendously both the roles and functions of education personnel. For education to survive, it must invite and accept planned changes, both in its organization and its personnel.

Teacher educators, curriculum planners, evaluation experts and educational technologists are vital resources for the educational system. Any such group of educational personnel can make or mar the educational system. They are, in contrast to planners and senior administrators, quite numerous and widely distributed on the national

scene. Appropriate profiles of these personnel and planned training programmes that would enable their functions to be discharged in a manner that fits society's needs are of considerable importance.

b) Guidelines for personnel profiles

To prepare personnel profiles for these categories, a series of steps is suggested.

1) Identify their professional functions as expected by the education system.

2) Study the expected outcomes of these functions.

3) Pool the opinions and perceptions of experienced educational personnel about their functions.

4) Survey the opinions of current and recent trainees regarding their expectations and their fulfilment.

5) Make case studies of those successful in the category.

6) Use the findings of relevant research in any job analysis.

The collated date from these exercises should be helpful in developing the personnel profile.

In different categories of educational personnel, the roles may overlap. Therefore, while preparing an inventory of the functions of a teacher educator, for example, the functions of a teacher should be kept in mind.

For any one of the specialist categories in this personnel sector, a personnel profile could be made out in great detail. For example, the educational technologist is a relatively new professional category.

The meeting considered in detail a paper on the personnel profile of educational technologists and their training. This illustrates admirably, in the circumstances of a particular country, how a professional profile can identify new relationships between formal and non-formal education, between education and the media. The input of new technology into pedagogy, and the possibilities of improved teaching in both established and innovative curricula are also considered.

Strategies. Certain strategies for the preparation of professional profiles and training emerge from consideration of such personnel as teacher educators and education technologists.

1) Organize discussions with the personnel in a group where the clients of the programme are present. The personnel will realize the need for reviewing their own roles and functions and the reconsideration of an established profile may occur. They should feel that both planning and implementation are their own decisions and actions.

2) Plan a pilot project with the involvement of existing personnel where new profiles are developed and implemented on an experimental basis. The success of this programme would prepare the ground for its broader application.

3) Seek to have the idea adopted by the teachers' professional organizations at an early stage in the planning.

Whatever the strategy a country adopts, care has to be taken to see that a carefully considered plan for monitoring and evaluating the new programme is set up from the beginning. An important aspect of the strategy is to build up evaluation activities around the new training programmes in order to have empirical evidence of the success or otherwise of the programme.

c) Guidelines for preparing training programmes

The training programmes for preparing new profiles (teacher educators, curriculum designers, evaluators and information specialists) need to be based on the following premises.

1) The training programmes should be consonant with the new profile. When the new training programme is prepared, it would be advisable to start thinking of a completely new programme rather than to modify the existing training programme. There is need to discard the dead wood and to introduce new content. The content of a training programme is invariably coloured by existing societal structures and thoughts.

With changes in the society, there is likely to be a major change in the content of the training.

2) Experience has shown that even the best training programme fails in its purposes if the appropriate training methodology is not used. Whereas teacher educators have generally given adequate thought to teaching methods and techniques, they have often not given much thought to training methodology. The new training programme should be implemented using a variety of training modalities which may be appropriately used to develop the competencies, skills, knowledge and attitudes constituting the new personnel profiles.

d) Curriculum designers, evaluators, educational technology specialists and information specialists - an example

The guidelines for developing new personnel profiles, training programmes and strategies for implementation can be applied to all categories of educational personnel, with minor modification as needed in specific cases. By way of an illustration, the preparation of a new personnel profile for a curriculum designer is outlined below.

By definition, a curriculum designer is supposed to develop learning materials for learners keeping in mind the national goals, educational aims, general and specific educational objectives of a particular subject. He/she knows how to develop the curriculum materials, understands problems of teaching methodology and developing evaluation materials. The profile of a curriculum designer has to be based on his/her professional functions and the qualities he/she should possess to be a competent curriculum designer. The first step would therefore be to write down his/her functions in detail. Some of the functions of a curriculum designer are as indicated.

i) He writes the general aims and specific objectives of teaching a subject in operational terms.

ii) He plans learning experiences both in the institution and outside the institution.

iii) He prepares the list of learning aids available in the school as well as in the community.

iv) He suggests teaching approaches appropriate to various units/sub-units of instruction.

v) He interprets the results of evaluation for the learner, for the teacher, for modifying the curriculum aims, the material or teaching methodology.

Once such functions are listed, it may be a worthwhile exercise to have these functions discussed with experienced curriculum designers to modify the list. A review of completed research on curriculum aims, curriculum materials, curriculum evaluation, teaching methodology and evaluation procedures may throw further light on conditions associated with successful and effective curriculum specialists. These may be added to earlier lists based on discussion with experts. If time and resources permit, a few case studies of curriculum designers may be valuable. On the basis of this evidence, the profile of a curriculum designer may be tentatively developed. This may be thrown open for discussion and subsequently modified.

From the profile so prepared, training programmes and materials may be developed.

The same type of strategy can be applied in preparing profiles and training programmes of evaluators and information specialists.

4. Operational and student services

a) Preamble

Apart from containing the major category of 'teacher', this sector contains a number of other categories that typify the changing shape of education.

'Teacher advisors' have the role of providing specialist advice to classroom teachers in particular areas of the curriculum, e.g. reading, music.

'School guidance counsellors' are a means by which teachers can obtain specialist advice on the diagnosis and treatment of learning and social problems.

Both 'technical-vocational teachers' and 'career guidance counsellors' represent the importance of the interface of 'education and technology' and 'education and work'.

Distance education is part of the new relationship between conventional educational programmes and continuing education, adult education and the aspirations of groups in society that institutionalized education has not hitherto served sufficiently.

Within most, if not all, of the personnel profiles for these categories, there needs to be developed some positive awareness of the dynamic factor in education which the meeting has identified. All their careers are affected by greater public intervention in the organization of education in society and the stricter deployment of public resources for educational purposes. While the further development in education of favourable attitudes towards science and technology may be expressed more clearly by some personnel (technical teachers, media specialists in distance education) than others, it will fall to the teachers to reconcile in the minds of children the values implied by greater acceptance of technology and other values honoured by the community. In a world where war and violence are rampant, teachers have a special responsibility to promote tolerance and peace. Perhaps because teaching seems to be a profession under pressure, personnel profiles of teachers (and their closest colleagues) need to emphasize teachers' growth as professionals becoming more able to assume important supportive roles for development and social change.

Such factors for change should be made clear in guidelines, in the personnel profiles that result, and in the training programmes. For that reason we have some doubt about the personnel profile for 'teachers', devised by the 1980 Regional Seminar on New Personnel Profiles, as a possible model. It includes many important and valuable competencies, but proved less useful than we had hoped because:

- many attributes were listed but with no order of importance, mixing necessary competencies with desirable but sometimes unattainable ones;
- some attributes were repetitions;
- Several attributes were vague, lacking clarity about the quality of competence expected;
- no guidance was given on the kind of social or professional changes for which teachers should be

prepared, or any different organizational situations in which they might function;

- there was no indication how personnel profiles and their implementation contribute to life-long processes of teacher education or career development of teachers.

b) Guidelines for personnel profiles

The meeting considers that in formulating personnel profiles for teachers and others at the operational and student services level, attention should be given at the national level to the following points:

1) A knowledge of the present state of academic achievement and professional training at various levels and in various situations, so that the attributes and competencies expected in any personnel profile can be specific and realistic; appropriate attention can then be given in training programmes to particular attributes, according to the assumptions that can be made about their expected quality;

2) By inviting educational personnel and their organizations to contribute positively to the implementation of personnel profiles i.e. in planning training programmes; in implementing them; in undertaking follow-up and reinforcing activities; in contributing to evaluation and research;

3) By incorporating into profiles, and into their implementation, some substantial awareness of the futures that societies and their educators face, socially as well as educationally.

4) By incorporating into profiles and their implementation, an awareness of the changing organizational structures within which teachers' careers will develop.

5) By establishing mechanisms which allow personnel profiles to be updated for new situations.

Examples of profile formulation

Since the personnel in this sector are the ones most likely to differ from country to country, personnel profiles

cannot be examplified in great detail. However, the following suggestions are made for formulating personnel profiles of this kind:

1) Teachers. Once a realistic appraisal of the existing capabilities of teachers has been made, it is suggested that competencies be grouped as follows: teaching competencies; organizational competencies and community competencies.

   (a) Teaching competencies. At the primary school level, to demonstrate competence in the subject matter required by the syllabus for the entire school in the subjects which they teach. At the high school level, to demonstrate competence beyond the level of the next public examination in any subject which they teach. At both levels, the capacity to design instructional sessions, to prepare appropriate instructional materials, to conduct class, group and individualized instruction, to assess student progress, and to evaluate performance in any part of the syllabus which he teaches.

   (b) Organizational competencies. Teachers should expect to:

   - manage the physical resources of their classrooms, plan the availability of equipment for future lessons;
   - contribution to the administration of particular parts of the school at the request of the headmaster;
   - help induct new teachers;
   - participate in in-service training at regular intervals;
   - participate in the activities of teachers' professional organizations.

   (c) Community competencies. Teachers should:

   - interact with parents;
   - assist community members who share in school management;
   - participate in community development projects;

- assist non-teachers who contribute to school programmes to teach effectively;
- teach in formal and non-formal programmes for adult community members.

Suggestions for other categories are offered in less detail.

2) Distance educators: This category bridges several new areas of education and like the example of the educational technologist in the previous group, bridges formal and non-formal education, brings technology into the world of education and provides opportunities for the continuing education of personnel in teaching and in other professions. It does, however, include a variety of personnel, e.g. curriculum specialists, educational technologists, course co-ordinators, correspondence material writers and editors, educational radio broadcasters, educational television producers, designers and illustrators, local tutors, senior organizing tutors, examiners and researchers, for each of which competencies can be designated.

3) Teacher advisors (reading, music, etc.). The main task of these personnel is to provide a supporting mechanism for bridging problems in curriculum implementation. For instance, implementation of the integrated curriculum at the primary school level has identified problems of primary school teachers who are unaware of specific teaching-learning requirements. Similarly, the skill of teachers in specific subject areas has to be reinforced. These personnel also take classroom sessions in support of the regular teacher. The role of this type of teacher should be widened to include providing guidance and assistance to the instructional role of parents of the children in the school. They should also have specific skills and abilities to provide on-the-job guidance to teachers for stimulating self-learning processes as far as possible. The linkages of the work done by these personnel to teacher training institutions on the one hand and curriculum development centres on the other hand needs to be strengthened.

4) School librarians: School librarians sometimes view their task solely as custodians of books, journals, newspapers and other forms of literature. This is a limited perception. They should perform the role of facilitator of all forms of information. For this purpose, the librarians should be aware not only of the information needs of the client populations but also of information available elsewhere which would be of educational interest and concern. The range of information available should not only directly support the curriculum, and the extra curricular and co-curricular activities of the schools, but also matters of general interest in the environment, personal interest of clients (such as hobbies, etc.) and also long-term orientation of educational concern. Information services should be individualized as far as possible in terms of specific client group needs, such as in documentation services.

5) Career guidance counsellors. The role of the career guidance counsellor is to assist in better recognition within the school of the activities of the world of work and to facilitate a smoother transition from school to work. Career guidance helps the learner in making decisions regarding his/her choice of vocation, to realize his/her special interests and his/her strong and weak points, so he or she will be properly guided in choosing a career.

c) Strategies and approaches in preparation of programmes and materials to implement personnel profiles

Some elements of strategy are implicit in the guidelines suggested. The following approach may be useful.

1) Agency. The agency designing personnel profiles (and updating them):

- should have this function as a regular and continuing function as part of educational personnel management;
- should include or have full access to, those educational planners whom government relies on

to assess long-term futures in education (whether within or outside the education ministry);

- should include representatives of key professional organizations in education;
- should have power to co-opt representatives of those personnel groups whose profiles are under review;
- should include, or have access to, researchers whose current information will help design, and whose evaluative skill will help develop, profiles on a continuing renewal basis;
- should plan initiate, participate in, but not necessarily administer, implementation activities.

b) Implementation. Implementation should be a planned series of operations carried out by groups including representatives of educational professional organizations, representatives of the proposed client group and evaluators. Such groups should prepare or adapt materials and ensure reporting and follow-up.

c) Recognition. The normative effect of personnel profiles should be recognized in the status and rewards accorded those who develop the competencies detailed in the profiles. Provided they do not make professional progress too inflexible, personnel profiles should become constituent elements in developing careers for educators.

Chapter Five

PLANNING OF FUTURE ACTIVITIES

The previous chapters have dealt with general issues, relevant to the region as a whole. To implement these general ideas, the national context is the crucial one, since the final decisions about desirable changes in education, needed personnel, appropriate programmes and strategies will be made at the national level. This chapter thus deals first with proposals for national initiatives and then continues to look at broader regional or sub-regional activities which may appropriately arise from this meeting.

I. Suggested research and project proposals for national initiatives

The meeting has identified many areas of concern if education is to be able to respond effectively to current and future needs. In the proposals which follow, those concerns are given specific focus at the national level.

The proposals set out to satisfy a number of criteria.

a) The national studies should be organized about particular concerns relevant to adjustment to change, e.g. adaptation to technological change, future orientation, community participation:

- these concerns should be the focus for the preparation of new organization and personnel profiles;

The plans for national studies in this chapter were developed by the stated authors in consultation with other members of the meeting and in the light of discussions reported in earlier chapters. They examine how some plans might be undertaken but, as stated earlier, do not state official views of governments or of their institutions.

- the major elements of the proposal should be clearly stated, particularly with respect to the profiles;
- a schedule for completion should be included;
- the methodologies for the preparation of the profiles should be made clear.

b) The design of the training programmes should indicate the decisions to be made for:

- content;
- methods and techniques;
- nature of materials;
- institu ional and individual responsibility for training;
- target audience(s);
- evaluation procedures and their use as part of the planning and development.

c) The expected roles of participating organizations should be made clear, as also their relationship to national policies.

d) The design of the project should be made clear including the procedures for evaluation, which should be an integral part of it. Certain questions need to be answered.

- What are the implications of the selected personnel profiles for the various personnel areas, e.g. external relations and services, policy development and managerial personnel?
- Have current research findings been used appropriately in developing the personnel profiles?
- Do the evaluation procedures allow for the continued updating of the profiles and the training approaches?
- Do the profiles take sufficient note of the most relevant developments in the various perspectives considered in the report, i.e. scientific and technological; sociological; pedagogical; information and mass media; management?

e) The initiative should represent a substantial attempt to bring about appropriate change in an element of the educational system. In the change, however, the implications for the total system should be considered.

f) The initiative should be based on a currently identified interest or set of activities and should be consonant with national goals. Sufficient organizational backing should be available actually or potentially, to enable the project to become an established part of the national scene.

1. Dr. Somporn Buatong (Thailand): A study to develop profiles of instructors/teachers of non-formal education in Thailand and to develop training programmes, content and evaluation procedures on the basis of new profiles

Rationale

The educational policy-makers and planners have decided to focus national effort on removing illiteracy through a programme of non-formal education. This is important if the community is to benefit from government efforts at reducing inequality among the various strata of the community. This programme will not only influence illiteracy but will have its impact on the total education system. In view of this, a national study is proposed in the area of 'non-formal education' with reference to developing new professional profiles, training programmes and training materials of teachers and supervisors of the non-formal programmes.

Objectives

One of the major aims of the programme of non-formal education in Thailand is to remove illiteracy among the people in the country. To achieve this, a programme has been implemented by the government. To make this programme more effective, it is proposed:

a) To examine the existing profiles of teachers and supervisors of the non-formal education programme and to develop new profiles in view of developments in science and technology, educational science, social developments and managerial science development.

b) To develop new training programmes for teachers and supervisors on the basis of new professional profiles.

c) To plan evaluation procedures so that profiles and training programmes could be modified on a continuing basis through feedback from evaluation.

Scope and procedure of the study

The study will be extended to the entire country at the community level. This study will involve the following activities.

a) Conducting a needs assessment study at the community level to identify the extent of illiteracy and thereby plan literacy programmes.

b) Conducting an evaluative study of the existing programme with special reference to size, content, curriculum, methodology, qualification of personnel involved in the programme, type and nature of training, supervision and programme evaluation.

c) On the basis of the findings of the needs assessment study and the evaluative study, ample data will be available for developing the programme.

The following methodology may be used to develop the profiles.

a) An opinion survey would be undertaken to identify knowledge, skills and attitudes needed by teachers and supervisors of non-formal education connected with literacy programmes. This opinion survey would actually reflect the perceptions of teachers and supervisors concerning the professional knowledge, skills and attitudes needed for effective teaching and supervision.

b) The findings of research connected with literacy programmes and other related issues will be compiled and their implications for the training of teachers and supervisors and also the training programme will be studied. For example, research studies have indicated that if a neo-literate is not followed up within a certain time, he is most likely to lapse back into illiteracy. The research findings will thus be helpful in planning follow-up

programmes. Similarly, research findings about methodology of teaching literacy, numeracy and functional skills are also available and can be used for designing content and methodology for the programme.

On the basis of the above studies, the profiles of teachers and supervisors will be developed. A validation of these profiles will be done by in-depth case studies of successful teachers and supervisors of literacy programmes.

Content

Once the profile has been developed, the next step would be to develop the training programme, teaching methodology and evaluation procedures. The major components of training would be:

- methods of teaching literacy;
- methods of teaching numeracy;
- methods of developing functional skills in order to improve living conditions;
- the principles of adult learning;
- the use of media for effective teaching.

There will be more areas but the final content will, however, depend upon the nature of the profiles.

Evaluation

The procedures for evaluation of the programme will include the following:

a) Evaluation of learning outcomes among the adult learners in terms of literacy, numeracy and functional skills.

b) Evaluation of the content of the training programme.

c) Evaluation of the supervisory function.

d) Evaluation of the training programmes of the teachers and supervisors.

The evaluation would be both formative and summative in nature and the results of evaluation would be used to modify the entire programme and its various aspects.

Training of educational personnel

The training programme will be tried out on an experimental basis in one of the provinces. On the basis of feedback, the programme will be modified and finalized.

The Department of Non-formal Education should be responsible for the projects with co-operation from appropriate educational institutions and other agencies concerned.

This study will have a duration of about two years as it involves developing the profile, training programme and a period of trial.

2. Professor A. Rahman (India): Interrelationship between science, technology, education and society

Rationale

Science, technology, education and society have close interrelations. The education system is circumscribed by the socio-political system and the cultural and ethical values of the society. The latter are extremely important for Asian countries, which have a long and continuous tradition of written history and a rich cultural heritage which requires in-depth studies. While the latter could also provide the framework for changes in the educational system, the focus here is how it might do so.

Science and technology provide inputs to education, as well as bring about major changes in education. The structure and content of education have considerable impact upon, and are themselves affected by, the development of science and technology. Societal changes also interact with these areas.

Objectives

a) To identify the main elements of the inter-relationship between the areas;

b) To develop methodology to study the impact of one on the other and the nature of inter-relationship;

c) To mount a case study in one country with a view to knowing the feasibility of (a) and (b); and

d) To undertake a comparative study with a view to knowing the varying impacts under different social and cultural conditions.

Methodology

a) Data would be collected on the main elements of inter-relationship through published sources to develop an overall picture;

b) Selected people would be sent a questionnaire covering specific points on which information is sought; and

c) Based on information collected through (a) and (b), a workshop would be organized to elicit views on the report prepared.

Duration

The project is expected to be completed in two years.

Elements indicative of approach

a) Scientific knowledge which has changed perceptions leading to changes in content of education and management practices.

b) Technological inventions which when introduced in education would revolutionize it.

c) How education could accelerate the pace of development of science and technology, its application to society, and absorb these in reorganization of the educational system.

d) Mechanism for modifying the educational system to meet social changes, needs and requirements.

e) How education could be developed to provide direction to the pattern of growth and the utilization of science, technology and society.

f) How the thinking and development could be compared and experiences shared, i.e. how thinking and development in one country has affected thinking and development in other countries.

Implications for training of personnel

The surveys and studies would give an idea of trends and anticipate the likely changes in the personnel profiles and these would provide the administrators with the content to be included in the curriculum of the training courses. The training of educators could be on short as well as long-term basis.

3. Dr. N.N. Singh (Nepal): Role of community leadership in the management of education

Rationale

Up to 1970, the school was the main concern of the local community in Nepal. It was the village leaders who founded, financed and managed it. The school management committee had all the authority and powers to hire and dismiss teachers. The government played only a supervisory role and could make available a lump-sum grant to the management committee. In this way, the government contribution or share of the total educational expenditure came to be about 40 per cent only. In 1970, such an arrangement was, however, found to be unsatisfactory. The government, therefore, decided to make changes. In the last decade, the government has succeeded in giving the whole education system a shape and a purpose. The teacher's salary is fixed and his other benefits are on a par with other professionals. His security of service is guaranteed. He is trained and he is given opportunity to upgrade his qualification. But in spite of all this, the quality of education imparted leaves a lot to be desired. The discipline within institutions has deteriorated. To remedy this situation, the government now realizes that the community which has almost withdrawn itself from school management should be once again brought in and that there should begin a new relationship, a new partnership between the school and the community.

Criteria

What components are relevant to major areas of concern? The central concern is to ensure active public participation in educational management. The society and the whole school system need to adjust to change.

This implies the need for new organizational and personnel profiles.

Organizational profiles

a) Village assemblies. They take on or resume responsibilities in school management involving the hiring and dismissal of teachers, preparation of budgets, auditing government allocations (which are substantial at primary level but diminish at

high school level) and fund-raising. They will be responsible for the use of school facilities and resources for adult education and other community purposes. They will also contribute to decisions on the curriculum.

b) Schools. These will change over from being managed by central government authorities to management by village authorities.

c) Teachers' organizations. These organizations will now deal with village leaders not central government organizations.

New personnel profiles

a Managerial. Profiles will be needed for chairmen of school committees, community members of school committees, headmasters who will act as member-secretaries of village assembly, school committees representing teachers.

b) Teachers. Teacher will need to have new conditions of service, responding to a different authority system and subject to a changing system of resource provision (including teacher education). All teachers will be called upon for more interaction with community interest groups.

Schedule

It would take some months to convert descriptions of the new organizational arrangements into specific personnel profiles for the key personnel identified above. Modifications will be required to profiles for other personnel affected by the changes. Implementation of training programmes at regional level could be expected to stretch over three years. The programmes would remain on-going for new appointments, but would be adjusted in the light of experience and changing needs.

Methodology

The Ministry of Education has a Curriculum, Textbook and Supervisory Development Centre whose functions could be expanded to design personnel profiles and training programmes, in consultation with the co-operation of District Education Committees of Village Assemblies (as principal clients).

Training of educational personnel

Design

It is envisaged that training would be conducted at regional, non-formal workshops. These would be supplemented by broadcasts as a means of distance education, plus the possible use of modular instructional materials. They would cover such content areas as the nature of the re-organization, the new allocation of responsibilities and the goals of community-based educational development. Content should be included on school management, on the presentation of budgets, fund-raising and auditing; on staffing and personnel selection, development and management; on the supervision of in-school practices with feedback to the national curriculum; and on the development of external relationships with the school, the community, other non-formal educational agencies and community development.

Evaluation should be a responsibility of the Ministry's Development Centre. It should be based on research and discussion with the clientele, both in the schools and in the villages. While the most strategic personnel profiles are for the key members linking village assemblies with school management committees, many other profiles will need to be redeveloped in support of the changes. No appropriate research exists but a research base could be established from the implementation of training to enable personnel profiles to be revised. While one eventual expected outcome could be greater awareness in the community and schools alike to technological developments, there may at first be some loss of momentum. There are fundamental sociological changes which imply new methods of pedagogy, a wider use of mass media and possibly quite radical effects on management.

Implications for the total system

The initiative is aimed at a change in the structure and organization of the entire system and has many ramifications. It is generated by a substantial change in public policy consonant with national goals and has the full backing of government and the people's representatives.

4. Dr. R.A. Alcantara (Philippines): Changing patterns in the preparation of personnel profiles in teacher education

Rationale

The existing programme in teacher education is not adequately structured to be able to prepare certain types of profiles of educational personnel needed for national development.

Main problem

To bring about needed changes in the present structure for the initial preparation and continuous upgrading of educational personnel in teacher education.

Specific problems

a) To highlight essential features in the presently existing profiles;

b) To indicate specific growth points and delineate needed directions for change;

c) To project the specific aspects of change in the changed pattern after a lapse of time, based on evaluation on a continued basis.

Procedures

a) Conduct a survey of the existing patterns in selected types of teacher education institutions in the country for general education, vocational, technical and other specialized areas.

b) Draw up plans for introducing changes in the existing set-up in the selected types of teacher education institutions.

c) Adopt a scheme for implementation of the needed changes in the existing pattern in terms of intra- and inter-institutional co-ordination and co-operation.

d) Conduct continuous evaluation of crucial components of the training programme.

e) Reflect the specific dimensions of growth/change in the altered pattern.

Points to be considered for assuring success in conducting the national study

a) A national committee should conduct the project and

work on a co-operative basis in order to get the changes introduced as soon as possible.

b) A consultative conference should be held involving respective institutions and key individuals concerned.

c) Preparation of materials is required, reflecting the needed changes and a scheme of programme implementation, together with all supportive materials and structures.

d) An intensive programme of reorientation for the existing personnel is required.

e) A budget proposal for conducting the national study should be developed.

f) Full national support in regard to the implementation of identified needed changes is necessary.

Proposed design of the training programme

This will be based on a study of existing national materials and will be organized under necessary knowledge, attitudes and skills.

5. Dr. Hussein Ahmad (Malaysia): A national project proposal for an educational administrators' profile with a view to developing a staff development profile inventory*

Objective

To study desirable characteristics of educational administrative personnel in order to develop an improved model, some approaches, and some strategies for training programmes for educational administrators/managers at the national level.

Issues in question as guidelines for the proposed project

a) Identification of gaps in the current personnel profiles of educational administrators and

* The report is a summarized version of a more extensive paper which is included in the documentation of the meeting and is available from ACEID

supervisors; possible explanation of the various discrepancies between actual and expected performance; and some possible solutions, approaches and techniques to remedy and to improve the situation.

b) Establishing a research base for examining expected and unrealized performance among educational administrators.

c) Recommendations for improving training programmes, orientations and exposures to the educational administrators in the context of a staff development profiles, science present 'job training' programmes appear deficient in approach and evaluation.

Scope of the study

There categories of educational administrative personnel at the national level are tentatively identified, as follows: (a) headmasters, senior assistants, district education officers; (b) state education directors/supervisors; (c) managers, officials at the macro-level.

Conceptual framework

Staff and staff development are defined as below.

Staff is defined as the educational administrative support personnel for teachers in managing the educational institutions at various levels.

Staff development is defined as a process to foster personal and professional growth for individuals within a positive organizational climate; and as the process of planning and implementing directed change to improve conditions, behaviours and performances within the philosophy and goals of the organization.

Methodological framework

The ultimate objective of the methodology is to devise an inventory for an educational administrative profile focusing on the broad dimensions of role and functions, and on aspects and domains of the profile that could be classified as central, primary, secondary, optional and irrelevant.

One principal component of this research project will constitute what is considered as the 'Dual Classification of the Inventory of Educational Administrative Profile'. This scheme is simplified in the following matrix of the proposal model.

Procedure

The proposed project could be conducted in stages covering a period of one-and-a-half to two years, carried out by a specific task force (perhaps including consultations at the sub-regional level) to programme the inventories, formalize the format, explore and determine the data processing techniques and statistical analysis relevant to the study, and adopt an overall understanding of the general procedure.

Actual implementation of the research design (including data collection and reporting) will be at the national level by the national research teams.

Expected outcomes

a) Information on a more realistic profile of the needs of educational administrators and managers.

b) Data bases to develop and design effective training programmes for educational administrators/managers/personnel.

c) Research instruments, models, approaches which can be modified or duplicated elsewhere.

d) Inventory of the educational managers/administrators personnel profile.

e) An improved model of training programmes that takes into account many factors that are socio-economic, political and cross-national.

f) Evaluation models, mechanisms and instruments.

The format of the research report would contain, among others, a background of the following.

a) Current staff development programmes.

b) Descriptive facts and statistics of those who have and have not undergone the training programmes in educational management.

A proposed scheme of the dual classification of the inventory of educational administrator's profile

***COMPONENT / ***ROLE	Cognitive (Knowledge)			Affective (Personality Styles)			Psycho-Motor (Knowledge and skills and their application)	
	Extent and depth of knowledge in the role component	Extent and depth of application	Synthesis of effects and impacts	Norms and values toward role	Commitment, Dedication, Motivation in playing the role	Interest, creativity, innovative, style of administ.	Social Relations - Govt. - Public - Teachers - Students	Technical Skills
ORGANIZER								
DELEGATOR								
CO-ORDINATOR								
EVALUATOR								

* Dual here is referred to 'What is' and 'What ought to be'.

** Inventory here is referred as 10 or more items (probably on the LIKERT Scale Technique) of educational administrative profile to be identified in each of four principal component roles expected and desired among administrators.

*** Additional items could be added in line with the national needs and development of the roject.

c) The current educational policy directions in the context of the political and cultural situation in which the personnel operate.

d) Statements of trends, future demands and needs of the personnel involved in the educational management and administrative functions.

e) Linkages with other APEID members, such as the Republic of Korea and SEAMEO member countries.

6. Dr. S.A. Siddiqi (Pakistan): Preparation of personnel for distance education programmes

Rationale

The population of Pakistan in 1982 is around 90 million. There are about 14 million children in the age cohort of 5 to 9 years. Out of these children, a little over 7.5 million children (i.e. about 55 per cent) are enrolled in primary schools. The number of primary schools is around 60,000, middle schools around 6,500 and secondary schools around 3,500 in 1982. Around 300,000 teachers are engaged in teaching in schools, colleges, universities and other institutions of technical and tertiary education. In spite of repeated efforts through various policies and plans for universalization of primary education since 1947 (the time of independence), Pakistan has been able to enrol only about 55 per cent of its children in the primary schools. Out of the children enrolled in schools, only 40 per cent complete their primary education (5 years' duration) while the remainder drop out before attaining a reasonable level of schooling and lapse back into illiteracy. The 1982 estimates of the literacy percentage is barely 26 per cent for the age-groups ten years and above. The literacy percentage in rural areas and particularly for the female population is still around 5 per cent which is amongst the lowest rates of literacy for this group in the region.

These and other similar limiting factors have forced Pakistan to explore alternative methods and structures of education. Distance education through correspondence, radio, television, tutorial sessions, and other innovative approaches was considered as a possible alternative to the gigantic problem of expanding educational facilities to the masses of people in the shortest possible time.

Need for distance education

In Pakistan, distance education has been considered as a viable mode of quickly reaching masses of people in the remote corners of the country. The National Education Policy (1978) fully recognized the need for a comprehensive distance education system under the aegis of the Allama Iqbal Open University and made significant decisions for strengthening the programme. The distance education approach in Pakistan is all-pervasive in terms of its interaction with other major components of the system of education. Right from the policy level, it proceeds through all the stages of programme planning, management, implementation and evaluation. It is also comprehensive in terms of its coverage of a wide variety of content areas, e.g. general education, functional education, teacher education, adult education and continuing education. Recently, a very special emphasis is being laid on women's studies through the creation of a Women Studies Cell which plans to launch post-literacy programmes for the female population leading to a secondary school certificate. This new dimension is likely to generate a great demand for the education of girls with far-reaching social, cultural and even political consequences for the country. At present, the Allama Iqbal Open University is offering about 60 courses to a population of around 25,000 students. It is estimated that about 50 per cent of these students are enrolled in general education programmes while the remaining 50 per cent are enrolled in teacher education, functional education and adult education programmes.

Personnel engaged in distance education

The creation of a massive distance education system in the country has necessitated specialized training of a wide variety of educational personnel engaged in the system, right from the policy level to the lowest level of implementation of the programme. At the initial stage, these personnel have been drawn from the formal education system with brief induction sessions. Experience has shown that such a practice is not likely to help in the long run because these personnel tend to revert to a formal education approach to which they are more accustomed and which they find quite convenient to operate. Acute need, has, therefore, been felt to design specialized training programmes for the key personnel engaged in distance education programmes.

Training of educational personnel

Categories

At present, the following categories of personnel are engaged in the system with certain discrete or overlapping functions:

- Policy makers and planners
- Curriculum specialists
- Educational technologists
- Correspondence materials writers, reviewers and editors
- Course co-ordinators
- Educational radio broadcasters
- Television producers
- Designers and illustrators
- Tutors (generally part-time)
- Senior tutors or monitors
- Paper setters and examiners
- Action-oriented researchers

Scope of the study

The proposed study for training of distance education personnel in Pakistan is designed to meet the following objectives.

a) To identify various categories of personnel engaged in distance education.

b) To delineate the present functions and responsibilities of each category of personnel.

c) To identify possible future trends which might affect the roles of distance education personnel.

d) To develop outlines of training programmes for each category of distance education personnel, comprising: (i) objectives; (ii) duration; (iii) competencies required (cognitive, psycho-motor and affective); and (iv) evaluation strategies.

e) To indicate institutional facilities required for launching the proposed distance education personnel training programme.

Methodology and procedures

Quite a few of the faculty members and technical/ administrative staff members have received training in advanced institutions of distance education abroad. These trained personnel can be associated with the exercise to develop inventories for determining details of competencies required for various categories of personnel. The charts showing existing functions of various categories of personnel are already available. These charts will be obtained and updated in consultation with the heads of relevant departments. Interviews will also be held with the selected members of faculty and staff to find out the nature of the broader roles which are being assigned to them. Their roles will be incorporated in the functional charts and relevant competencies determined through the above procedure.

Expected outputs

The proposed study on this subject seems to be of crucial significance for the development of a viable training strategy for key personnel engaged in distance education. The benefits of this study will not be restricted to a few institutions or categories of personnel as they are likely to have a substantial inter-active impact on other sub-systems, like training of teachers, administrators, planners, media experts, researchers and curriculum specialists. The study can also be widely used by other institutions in the region engaged in distance education programmes. Such a study can eventually lead to the creation of a viable regional mechanism for the creation of institutional facilities for the training of distance education personnel.

Schedule of operation

The study will be completed within one year from the date of launching.

7. Professor P. Hughes (Australia): Reorganization of education to meet the demands of the future and to develop community participation in education

Rationale

Recent social changes have brought into question the effectiveness and relevance of education, particularly at the secondary level. Participation has grown rapidly in

recent years but evidence suggests that the secondary programme has not developed in appropriate ways. The recent growth in youth unemployment has given added strength to the concern. In view of the fact that future changes seem likely to be even more substantial in nature, a reappraisal of education systems in general has been under way, including a particular re-assessment of the role of secondary education.

The detailed analysis of secondary education is in one sense specific to a particular country. Thus the first emphasis of this project is on improving the quality of secondary education in Australia. However, in another sense, the problems of secondary education are so general as to appear to have a significance broader than the national. It would be desirable in the context of this study, to provide for some inter-country comparisons.

In Tasmania, a reorganization of the State Department of Education is under way, following a special report to the Government. The reorganization will concentrate on the development of central services in areas such as curriculum planning and on the support to schools at the local level to ensure that their programmes are seen as relevant and effective. This implies two emphases for personnel.

a) At the system level: To prepare curriculum specialists who can develop curriculum guidelines and supporting materials, and can provide services to schools which take account of current and future changes in social, cultural and technological factors affecting the curriculum.

b) At the school level: To assist principals and senior staff in developing appropriate management skills, including curriculum development and evaluation, and appropriate personnel skills to initiate and maintain community participation at the school level.

c) It is also the requirement to develop training programmes for these two categories. Prototype material has already been produced and trialled in the area of curriculum evaluation and the same approach is now being used in other areas.

Timetable

a) October 1981 - A review of the Tasmanian Education Department - report available, July 1982

b) January-December 1982

- Research project on secondary school curriculum. Australian Council for Educational Research.
- Project on community expectations of secondary education, Canberra, C.A.E.
- Establishment of Secondary Education Project - to identify major needs at the secondary level; to prepare secondary education programmes to match needs, July 1982.
- Senior Staff Development Project - a special programme for senior secondary staff in Tasmania, involving four weeks, to develop personnel profiles for curriculum specialists and school principals and senior staff, September 1982.
- Preparation of training materials: curriculum design; curriculum evaluation - prototype available; school management and policy - prototype available; July-December 1982.

c) January-December 1983

- Development of programmes for curriculum specialists.
- Development of programmes for senior staff. A co-operative effort between University of Tasmania; Centre for Continuing Education of Teachers; and Institute for Educational Administration, Victoria.

APEID input

Interchange with curriculum specialists - Malaysia and Singapore.

Tasks

Research studies

a) On the secondary curriculum: to identify areas of major need; to initiate curriculum research projects in priority areas.

b) On community participation: to identify major priorities and concerns for secondary education; to develop appropriate procedures for community involvement.

c) On implications for informal education and extra-curricular activity.

Personnel profiles

a) For curriculum specialists at the system level:

- In curriculum development, planning, research and evaluation.
- In curriculum implementation.

b) For senior staff at the school level:

- In curriculum implementation and evaluation.
- In community involvement.

Strategies

a) Research studies are already under way at the Centre for Education, University of Tasmania - an APEID Associated Centre. These can be extended and developed more widely if the project is to continue.

b) Links have already been developed in Australia with the following bodies: South Australian Education Department; Tasmanian Education Department; Monash University; University of Melbourne; Canberra College of Advanced Education; Sydney University; Macquarie University; Institute for Educational Administration; NSW Commission of Education; Queensland Department of Education; Australian Council for Educational Research.

There is also a link with the American project, a Study of High Schools, based on Harvard University.

8. Dr. N.Fernando (Sri Lanka): Organizational development of schools

Rationale

The aim of the project is to improve the overall organizational effectiveness of schools in Sri Lanka. About

100 schools of different types will be specially surveyed: large urban schools, small rural schools,etc. Schools vary along different orientations: nature of the environment, rural or urban, occupational profiles, futures needs in science and technology, participation with linked organizations; nature of the organization, aims, size, curricular range, student composition; internal structure, programme, personnel profiles, structure, work system. A mix of these three dimensions appropriate for school development will be included in the pilot survey of 100 schools. General considerations as well as measures which are specific to particular schools will be taken into account. The ultimate outcome is to orient schools to change their environment as well as to be relevant to environment needs.

The focus of the project is to secure performance at three levels: (a) overall organization in relation to future needs and environmental relevance, (b) programme effectiveness, (c) personnel effectiveness. All these factors are interrelated. New organizational programmes and personnel profiles will be prepared on this basis.

The methodology would be as follows.

i) Diagnostic survey of selected representative schools, to ascertain what should be the appropriate profile (organizational/programme/personnel) - in order to secure optimum performance and future relevance of these institutions.

ii) Identify gaps in present performance of organization, programmes and personnel. In particular, existing profiles in regard to present performance of the following will be prepared: (a) organizational and programme profiles, (b) personnel profiles of the following categories principal and teachers in these schools, resource staff related to school performance (for example managerial, curriculum and training college, supervisory and planning staff), (c) personnel related to external linkages with the school environment.

iii) Prepare training materials and also prepare the trainers. Train consultants to undertake the programme for performance improvement in relation to (i) and (ii) above.

iv) Launch a programme to improve these schools by:

a) individual training of staff, as well as group/organization training;

b) Effecting improvements in policy, structures, management, technology, resource use, programmes and environmental linkages, through a cycle of management consultancy;

c) Securing orientation of support services and resource personnel for the programme of school development.

d) ensuring the co-operation and involvement of community agencies in these tasks;

e) evaluating impacts, replanning and extending this project to cover other groups of schools.

Training programmes. These programmes will include the following target groups - pupils, teachers, principals and personnel in linked organizations in the task environment, as well as those in supportive agencies in the education system (such as trainers, consultants, managerial and supervisory grades and curriculum developers. Methods of training will include individual and group training with training being supplemented by consultancy. Training material will focus on school curriculum changes and on teacher training college curricula as well as on training material for other target groups. The responsibility for training will be a joint responsibility. This will involve curriculum development, teacher training and management training and consulting agencies in the educational system. An inter-agency task force will be set up for this purpose. Evaluation of training will be on the basis of post training consultancy assignments to evaluate programme and personnel effectiveness. Evaluation procedures adopted will enable updating of organizational and personnel profiles as well as continual development along perspectives for developing science and technology, use of mass media, pedagogy etc.

Co-ordination of the project. The agency, co-ordinating the overall implementation of this project is the Regional Supervision and Management Development Division of the Ministry of Education. It may be noted that the Planning Branch as well as the Staff College for Education Administration are components of this Division and are APEID

Centres. Some preliminary work in regard to para 3 (i) above has been done - but this phase is not yet complete. The first cycle of the project (i) to (iv) above would take two to three years. Only a part of the resources (both financial and personnel) is available at present.

II. Proposal for a regional initiative in teacher education

a) Title

Foundations of Education and their Implications for Curriculum Studies in Teacher Education.

b) Purpose

i) To develop a scholarly basis for the teaching of the foundations of education in tertiary institutions and institutes of teacher preparation in particular.

ii) To determine the implications of the foundations studies and other relevant considerations for curriculum studies in teacher education.

iii) To expand on this training by means of in-service courses for teachers, researchers and management personnel.

iv) To develop a basis for research which takes note of the dangers of uncritical acceptance of paradigms developed for other purposes and of the use of inappropriate research and evaluation designs.

v) To provide a framework under which APEID might develop a forum for forward-looking and future-oriented thinking and concerns which are emerging in the participating Member States. This programme area will also offer the scope for inter-country co-operation in research and development, as begun through APEID in the second cycle.

vi) To establish from within the Member States an information network for the purpose of exchange and dissemination of ideas in the area of the foundations of education. Interested persons

will be historians, psychologists, philosophers, sociologists, comparative educationists and other educators who will see the area as the foundation for the development of other studies, for example, demography, long term trends and forecasting in education and strengthening of links between culture and development.

vii) Research in the foundations of education will yield important data and interpretation on the disadvantaged groups which suffer severely from educational deprivation. namely, girls and women, population in rural areas and in depressed urban areas, tribal and nomadic groups, minorities, and the physically and mentally handicapped.

viii) In summary:

- To promote studies and reflections on learning with reference to socio-cultural heritage in different societies and new technological development;
- To promote reflections and studies on systems and facilities for developing research policies, co-ordinating research activities, disseminating and utilizing its outcomes, and initiating studies on improving the infrastructures;
- To facilitate the development of inter-institutional co-operative programmes within and between countries in research and evaluation.

c) Content

Member States will develop their own teaching courses. These will draw on the statements of purpose defined above and on the general issues defined and developed in this report. The common emphasis of all the courses will be to seek to respond more creatively and constructively to change, and to recognize that there is always a temptation to cling too long to structures and to patterns of organizing which have lost their relevance and their

helpfulness. The most recent Club of Rome Report, No Limit to Learning, pointed out forcefully our tendency to over-emphasize the maintenance aspects of education and to neglect the need for innovativeness and creativity. If education is tending to play a developmental role in areas of human need, the courses prepared for teachers will be of great importance.

d) Method

i) The pre-service course and other courses in tertiary institutions should form an integral part of the training of student teachers and other under-graduates and should take the form of lectures, seminars and workshops.

ii) The in-service course should extend the pre-service courses and provide training in research in the foundations of education. The research methods will form the bases of research into the various contributing disciplines of education, the economics of education and government and education. Studies, professional papers and publications will result.

iii) The formation of the information network mentioned above will bring together scholars and research workers from many fields and disciplines and provide a very wide forum for the exchange of ideas, reports of work-in-progress and new initiatives. The conference would be one suitable method with papers, seminars, panels and workshops.

iv) Full use should be made of resource persons from Associated Centres. The resource persons drawn from the Associated Centres will help in the training courses, workshops, design teams, evaluation exercises organized by another Associated Centre. Such movement of resource persons among the participating countries should be greatly facilitated in the third cycle. The resource persons from the Associated Centres would be helpful to ACEID also or a host Associated Centre in the planning or conduct of a regional Activity.

e) Evaluation and dissemination

Evaluation procedures will be built into the national courses. After one year of operation, the results of the evaluation will be compiled and circulated for mutual assistance.

III. Further regional and sub-regional activities

It was recommended that ACEID may compile outcomes of research studies on profiles and training methods for different categories of staff. In this exercise, ACEID may make full use of:

a) studies made by the participating countries under different APEID activities;

b) information services on educational research within and outside the region; and,

c) co-operation with its Associated Centres and distinguished scholars in the participating countries.

Annex I

STATEMENT OF MR. RAJA ROY SINGH, ASSISTANT DIRECTOR-GENERAL, UNESCO REGIONAL OFFICE FOR EDUCATION IN ASIA AND THE PACIFIC, AT THE OPENING OF THE DESIGN MEETING ON PREPARING (a) PERSONNEL PROFILES, AND (b) TRAINING CONTENT, MATERIALS AND EVALUATION, BANGKOK, 26 JULY-3 AUGUST 1982

Distinguished participants and observers,
Ladies and Gentlemen,

It is a great pleasure and honour for me to be here with you this morning at the opening of the Design Meeting on Preparing, Personnel Profiles and Training Content, Materials and Evaluation.

On behalf of the Unesco Regional Office for Education in Asia and the Pacific and on my own behalf, I wish to extend a warm welcome to all distinguished participants.

This office organized during 1980 a Regional Seminar on New Personnel Profiles in Relation to Changes in Society and Educational Systems, which was held here in Bangkok in January 1980. The 1980 Meeting focused on the preparation of personnel profiles and the necessary structural and procedural changes that would be required in planning of education.

Your meeting will review the earlier work and their planning implications with focus on the future. You will also address yourself to the next important need - to make concrete suggestions on the content, strategies and methodologies of training.

A crucial problem in education arises from the fact that while society is changing rapidly and in a generation will be very different from the present, educational systems and educational responses change but slowly. Evidently, this disparity in the rate of change in society and education will create an increasing gap between them. In the result, education will tend to become irrelevant and society will be adrift in the absence of the unifying values and ideas which education should provide.

Training of educational personnel

Education has been theoretically assigned the role of not merely reflecting the society but also of reflecting upon that society. It appears, however, that education generally has failed to reflect on its own role. This places a new obligation on educators and calls for corps of more informed and committed educators who will creatively respond to challenges of the social, cultural and economic development of the countries, in which they live.

What we know about the future is in inverse relation to what we know of the present. About one thousand years ago, our knowledge about the world, about life, about peoples was limited and we could with confidence and a high degree of accuracy foretell what the future would be in one or two generations. No wonder, all our thinking at that time was in universals, in truths that were unchanging and unalterable. In modern times we know a great deal more about the world and life and therefore we know, and can know, infinitely little about the future. Our truths can only be provisional, relative. Perhaps this gives the hardest task to education and particularly the preparation of educational personnel. Educators are by definition full of certitude: we are the people who know, otherwise how can we teach others? For us to develop the ability to think in uncertainties is going to be quite a challenging task.

However, these developments are also placing heavy demands on educational personnel.

In particular, educational personnel are expected to perform a number of tasks, some of which are not according to the traditional pattern related to school teaching, but which are nevertheless of vital importance to total development of the community, such as nutrition, environment protection, community development. Teacher education institutions have to recognize the significance of these tasks and, through their programmes, ensure teachers' awareness of various societal problems and enhance this competence to educate the total community to deal with them.

At another point in the spectrum, teachers and educational personnel are concerned with the constant improvement of the instructional process. This will require the adoption of innovative practices based on research and experimentation in classroom settings. Teacher education

institutions have tended to under-emphasize the training of teachers in research methods and practices, with the result that teachers continue to use uncritically methods which have been handed down from the previous generation. This is an area where the competence of teachers also needs to be enhanced.

Whole categories of new roles will have to be identified for teachers and other educational personnel. Even more important, new categories of staff, new types of specializations will be needed to run a future oriented educational system. This need underlines the importance of reconsidering the questions of staffing, structures and systems with problems of new relationships, new training needs, and new forms of evaluation and planning.

I am happy to have in our midst for this meeting such a distinguished group of educators, scientists and scholars representing a wide variety of experiences and professional knowledge. We look forward to your deliberations and their outcome with keen interest. A meeting of this kind prospers best if it quickly establishes an informed atmosphere of free and easy dialogue and indeed becomes a meeting of minds. I wish you success in your deliberations.

Annex II

AGENDA OF THE MEETING

1. Opening of the Meeting

2. Election of officers

3. Consideration of the provisional schedule of work and introduction of documents.

4. Presentation and exploration of problems and issues, sharable experiences, growth points and relevant findings of research and evaluation studies in respect of personnel profiles and training programmes.

5. In-depth study of selected issues relating to preparation of personnel profiles.

6. Suggestions on methodologies of preparing organizational, institutional and personnel profiles and training programmes.

7. Suggestions on implementation of future activities at national and regional levels.

8. Consideration and adoption of the draft report of the Meeting and closing of the Meeting

Annex III

LIST OF PARTICIPANTS AND OFFICERS OF THE MEETING AND COMPOSITION OF THE WORKING GROUPS

Australia	Professor Phillip Hughes Dean Centre for Education University of Tasmania G.P.O. Box 252 C Hobart, Tasmania
India	Professor A. Rahman Director National Institute of Science, Technology and Development Studies CSIR Complex, Hillside Road New Delhi 110012
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Malaysia	Dr. Hussein Haji Ahmad Head Research and Co-ordination Unit Educational Planning and Research Division Ministry of Education 20 Bangunan Bank Pertanian Kuala Lumpur

Training of educational personnel

Nepal	Dr. Narsingh Narayan Singh Secretary of Education Ministry of Education Kathmandu
New Zealand	Professor Donald Bewley Director of Extramural Studies Massey University Palmerston North
Pakistan	Dr. Shaukat Ali Siddiqi Director Institute of Education and Research Allama Iqbal Open University Sector H-8 Islamabad
Philippines	Dr. Rebecca Alcantara Dean of Instruction Philippine Normal College Manila
Republic of Korea	Dr. Ran Soo Kim Dean College of Education Yonsei University 134 Shinchon-Dong Sadaemoon-gu Seoul
Sri Lanka	Mr. Neil Fernando Additional Secretary Ministry of Education Malay Street Colombo
Thailand	Dr. Somporn Buatong Professor of Education Srinakarinwirot University Prasarnmitr Sukhumvit 23 Bangkok

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Mr. Raja Roy Singh
ADG/ROEAP

Dr. A. Latif
Chief of ACEID

Dr. H.K. Paik
Specialist in New Methods in
Teacher Education (ACEID)

Mr. A. Dyankov
Specialist in Instructional Materials
(ACEID)

Officers of the Meeting

Chairman	Professor P. Hughes	(Australia)
Vice-Chairmen	Dr. N.N. Singh	(Nepal)
	Dr. Somporn Buatong	(Thailand)
Rapporteur	Professor Donald Bewley	(New Zealand)

Secretariat of the Meeting

Dr. A. Latif	Chief of ACEID
Dr. H.K. Paik	Specialist in New Methods in Teacher Education (ACEID)
Mr. A. Dyankov	Specialist in Instructional Materials (ACEID)

Composition of the working groups

Group I:	Professor A. Rahman	(India)
	Mr. Neil Fernando	(Sri Lanka)
	Dr. A. Latif	(ACEID)
	Mr. A. Dyankov	(ACEID)
Group II:	Dr. S.C. Seth	(India)
	Dr. N.N. Singh	(Nepal)
	Dr. Moegiadi	(SEAMES)
	Professor Donald Bewley	(New Zealand)
	Mrs. Helen Allnutt	(Australia)
Group III:	Dr. Somporn Buatong	(Thailand)
	Dr. M.B. Buch	(India)
	Dr. Rebecca Alcantara	(Philippines)
	Dr. H.K. Paik	(ACEID)

Group IV:	Dr. Ran Soo Kim	(Republic of Korea)
	Mr. Akira Sato	(Japan)
	Dr. Hussein Ahmad	(Malaysia)
	Dr. Shaukat Ali Siddiqi	(Pakistan)

Annex IV

LIST OF DOCUMENTS

Information Documents

ROEAP-82/APEID-DM/INF.1	-	General Information Paper
ROEAP-82/APEID-DM/INF.2	-	List of participants

Working Documents

ROEAP-82/APEID-DM/1	-	Agenda
ROEAP-82/APEID-DM/2	-	Annotated Agenda
ROEAP-82/APEID-DM/3	-	Schedule of Work
ROEAP-82/APEID-DM/4	-	Personnel Profiles and Training Programmes: an Overview
ROEAP-82/APEID-DM/5	-	A Paper on New Personnel Profiles - Australia, by Phillip Hughes
ROEAP-82/APEID-DM/6	-	A Paper on Future Directions of Societies and Educational Systems, by Mr. Andrew R. Freeman
ROEAP-82/APEID-DM/7	-	Educational Systems and Personnel Profiles in a Changing Society - India, by A. Rahman
ROEAP-82/APEID-DM/8	-	A Paper on New Personnel Profiles - India, by T.N. Dhar
ROEAP-82/APEID-DM/9	-	Implications of the Future and the Emerging Educational Personnel Profiles - India, by S.C. Seth

ROEAP-82/APEID-DM/10	- A Paper on Personnel Profiles - India, by S.C. Seth
ROEAP-82/APEID-DM/11	- Preparing Educational Technology Specialists, by M.B. Buch and Edith Vedanayagam
ROEAP-82/APEID-DM/12	- Developing Profiles of New Educational Personnel, by M.B. Buch
ROEAP-82/APEID-DM/13	- A Paper on Personnel Profiles - Japan, by Akira Sato
ROEAP-82/APEID-DM/14	- A Paper on Personnel Profiles - Malaysia, by Hussein Haji Ahmad
ROEAP-82/APEID-DM/15	- A Paper on Personnel Profiles - New Zealand, by Donald Bewley
ROEAP-82/APEID-DM/16	- Social Change and New Profiles of Educational Personnel - Nepal, by N.N. Singh
ROEAP-82/APEID-DM/17	- A Paper on Personnel Profiles - Pakistan, by Shaukat Ali Siddiqi
ROEAP-82/APEID-DM/18	- Preparation and Development of Education - Philippines, by Rebecca D. Alcantara
ROEAP-82/APEID-DM/19	- A Paper on Personnel Profiles - Sri Lanka, by Neil Fernando
ROEAP-82/APEID-DM/20	- A Paper on Personnel Profiles - Republic of Korea, by Ran Soo Kim

Training of educational personnel

ROEAP-82/APEID-DM-21	- A Paper on Personnel Profiles - Thailand, by Somporn Buatong
ROEAP-82/APEID-DM/22	- Preparing Personnel Profiles, Training Content, Materials and Evaluation, by Moegiadi (SEAMES)
ROEAP-82/APEID-DM-23	- A National Project Proposal for Educational Administrator's Profile and Model of Training Programme, with Possible Co-operative Links with Two Other Countries by Mr. Hussein Ahmad (Malaysia), Prof. Ran Soo Kim (Republic of Korea) and Dr. Moegiadi (Indonesia)
ROEAP-82/APEID-DM/24	- Research into the preparation of specialist educational personnel, by Phillip Hughes (Australia)