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ABSTRACT

Eleven participants from six countries (Indonesia, Malaysia, Nepal, Philippines, Thailand, and the Republic of Korea) participated in the UNESCO regional workshop which is the subject of this report. The four objectives of the workshop were to: (1) review and exchange experiences on research and pilot studies to improve teaching/learning practices; (2) analyze problems and issues related to the application of research findings to improve teaching/learning practices; (3) develop guidelines on the improvement of teaching/learning practices through the application of research; and (4) describe examples of new forms of research and effective application strategies used successfully in the region. The three chapters of the report provide: (1) a review of country experiences; (2) a review of pilot studies and other research; and (3) a discussion of strategies for improving the application of research findings. Three appendices include an agenda, a list of participants, and a list of documents. (DB)

APEID

Asian Programme of
Educational Innovation for Development

Research to improve Teaching-Learning Practices

UNESCO

UNESCO REGIONAL OFFICE
FOR EDUCATION IN ASIA AND THE PACIFIC
Bangkok, 1984

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PREFACE

In pursuance to Resolution 1/01(i) 5.4 adopted by the General Conference of Unesco at its twenty-first session, a Regional Workshop on the Application of Research Findings for Improvement of Teaching/Learning Practices was convened by the Unesco Regional Office for Education in Asia and the Pacific and the Asian Centre for Educational Innovations for Development (ACEID) in co-operation with the Korean National Commission for Unesco at Inha University, Inchon City, Republic of Korea from 10 to 18 October 1983.

The objectives of the regional workshop were to:

1. Review and exchange experiences on researches and pilot studies to improve teaching/learning practices;
2. Analyse problems and issues related to the application of research findings to improve teaching/learning practices;
3. Develop guidelines on the improvement of teaching/learning practices through the application of research; and
4. Describe exemplars of new forms of research and effective application strategies used successfully in the region.

There were 11 participants from six countries namely Indonesia, Malaysia, Nepal, Philippines, Thailand and Republic of Korea.

The workshop was inaugurated by Dr. Bong-shik Park, Secretary-General of the Korean Commission for Unesco. Dr. Park stressed the significance of the theme of the workshop. He pointed out that a good number of researches had been undertaken by school officials and teachers but the findings of these researches are not fully utilized. He hoped, therefore, that problems and issues related to the theme would be discussed in the workshop so that alternative approaches or innovative strategies could be explored to apply research findings to improve teaching/learning practices.

Dr. Hi-chul Kim, President of Inha University gave the welcome address on behalf of the host institution.

An orientation on workshop objectives, agenda and provisional scheuule of work was presented by Dr. Hyun Ki Paik, Specialist in New Methods in Teacher Education, Unesco Regional Office for Education in Asia and the Pacific. (Agenda at Annex I).

In the opening plenary session, the following officers of the meeting were elected unanimously:

Chairman	:	Dr. Yung Dug Lee (Republic of Korea)
Vice-Chairman	:	Mr. Agus F. Tangyong (Indonesia)
Rapporteurs	:	Miss Edith B. Carpio (Philippines) Mr. Goh Keat Seng (Malaysia)

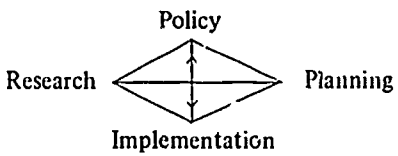
Chapter One

REVIEW OF COUNTRY EXPERIENCES

Educational research is a relatively young discipline in comparison with research in the exact sciences. Nevertheless, in the past 25 years, it has made rapid progress, especially in the more developed societies of the West. More recently, implicit belief in the usefulness of research in the derivation of valid and reliable data for the improvement of educational structures, contents and methods, has been consistently reflected in the reports from most of the countries in Asia and the Pacific. Research, including evaluation, is seen as a prerequisite in the quest for internal and external efficiency in education. With this end in view, Ministries of Education in the countries represented in this workshop have tried to promote and co-ordinate educational research either through national agencies, through the universities, or through other institutions at the central, provincial and local levels.

The purpose for which research is actively cultivated is to provide directions for the improvement of practice. A more accurate reading of the research-practice relationship, however, is in the context of policy formulation and planning for implementation, as represented diagrammatically in Figure 1.

Figure 1. Research–Policy–Practice Relationship



In this extended relationship, research is viewed not in isolation but as an integral part of the process of development.

During the last decade, the volume of research studies undertaken by various countries in the region has been steadily increasing. They may be classified under three main categories, namely. (1) Theoretical or basic research, (2) Experimental and developmental research; and (3) Action research.

1. Theoretical or basic research

The main goal of theoretical or basic research is to seek out new knowledge or to advance the frontiers of existing knowledge. A substantial proportion of research in this category is concerned with psycho-pedagogical issues and problems such as child development and its implications for the processes of learning. In recent years, however, theoretical research has begun to take cognizance of political and socio-economic dimensions as well, viewing education in the context of its total environment.

Research to improve teaching/learning practices

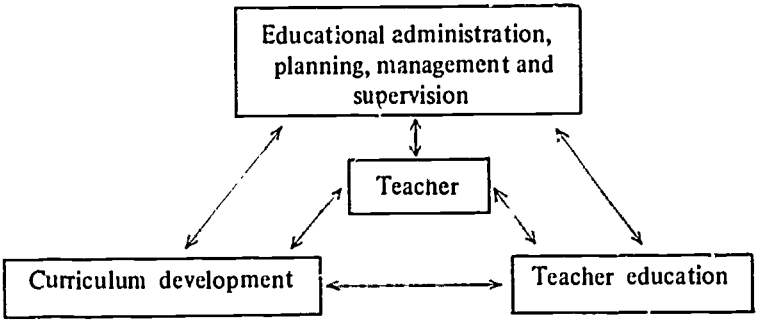
Theoretical research in education is usually carried out by professors and other academic staff of university colleges of education either as individuals or as members of specially constituted research teams. In the former instance, research takes the form of investigations at the masters', doctoral or post-doctoral stages. In the latter, government interest and involvement is usually present through the identification and approval of research topics and the allocation of funds for research.

Not many examples of this type of research have been reported in the countries under review. A possible exception is Indonesia, where the Ministry of Education recently commissioned a team of university academics to carry out basic studies on cognitive development, readability, written composition and anthropometric studies The studies are in progress, and their probable impact on teaching/learning practices cannot be ascertained with any accuracy at this stage of implementation. Mid-term results of the studies have, however, been channelled into the process of curriculum revision.

2. Experimental and developmental research

In contrast with basic research, the purpose of applied research is to answer specific questions on practical problems. Educational research and development, otherwise called research-based development, seeks to develop and validate educational products, including systems, procedures, processes and materials. This model of educational research is concerned with education as a major stimulant for social change in the wider arena of national development. Consequently, innovation in education must be conceived in the context of a whole system. While research and development programmes are ultimately aimed at the modification of teacher behaviours, the teacher is himself viewed as a vital component in the education system as illustrated in Figure 2.

Figure 2. The teacher in the Total Education System



Research and development programmes abound in the countries under review. Some notable examples are the Research and Development Models in Indonesia, the projects related to the Cabinet Committee Review on the Implementation of Educational Policies in Malaysia the Radio Education Teacher Training Programme in Nepal,

the Experimental Elementary Education Programme (EEEP) in the Philippines, the Reduced Instructional Time (RIT) Project and the Micro-teaching Approach for Improving Teaching Competencies in Thailand, and the Elementary and Middle School Project (EMP) of the Republic of Korea.

a) Research and development models–Indonesia

In Indonesia, various research and development projects were carried out at the national level with active participation by universities and colleges in the country. Some of the on-going projects under this category of research are.

i) The PPSP * concerned with the provision of five-years' primary education,

ii) R and D studies on the content and methods of primary education, with particular reference to science, mathematics, social studies, language, physical and health education, art education, environmental education, mastery learning, modular instruction, process skills and small group work, and

iii) Review and improvement of the support system, including educational administration, professional support, textbook utilization and continuous progress. Most of these programmes have been incorporated into the national system and have had direct impact on the teaching/learning process.

b) Projects related to the Cabinet Committee Review on the Implementation of Educational Policies–Malaysia

The Cabinet Committee on Education appointed in 1974 attempted an evaluative review of the implementation of educational policies through observation, interviews and qualitative analysis of documents submitted to it by education personnel as well as members of the public. Its findings, published in 1979, were aimed, among other things, at the improvement of educational contents and methods at the school level, teacher education, and educational administration, management and supervision. A steering committee was appointed to study the findings and recommendations of the Cabinet Committee Report. Three of the projects arising from this exercise are.

i) Restructuring and reorganization of primary and secondary education. At the primary level, a wholesale revision of the curriculum focused on the basic skills of learning was undertaken in relation to teacher preparation, materials development and administrative and supervisory support. Pilot testing of the curriculum paved the way for nation-wide implementation. A similar course of action is underway at the secondary level.

ii) Teacher Education Review This was designed and implemented in terms of teacher selection, curriculum review, student evaluation and the upgrading of teacher educator competencies. There is constant readjustment of the contents and methods of teacher education in relation to the needs of the primary school curriculum.

iii) Evaluation of in-service education programmes. Various evaluative studies were carried out concerning the effectiveness of in-service education programmes. One in-depth study was the "Study of the participants of the

* PPSP Proyek Perintis Sekolah Pembangunan (Pilot Project on School System Development).

six-month TESOL in-service course 1980–1982" conducted by the Language Institute, Kuala Lumpur. The main objective of the study was to obtain information on the usefulness, effectiveness and relevance of the programme. A postal survey was administered to 400 teachers who had participated in the programme. To validate the findings of the survey, a representative sample of these teachers and their heads of schools were interviewed, and some actual classroom lessons were observed. The main conclusion of the survey was that the teacher benefitted professionally from the programme. However, suggestions were made towards its further improvement, in terms of the course content, methods and facilities

c) The Radio Education Teacher Training Programme–Nepal

This is an in-service primary teacher training programme which enrols untrained primary teachers with grade VIII to X schooling of the remote mountainous districts After enrolment, the teachers are provided with a radio set and a package of self-instructional materials. Orientation in the use of these materials is given to the teachers through contact sessions. Special one-hour programmes for teacher training are broadcast six days a week. The participants sit for an external examination leading to the award of certificates for successful candidates.

d) The Experimental Elementary Education Programme (EEEP) Philippines

The Survey of Outcomes of Elementary Education (SOUTELE) in 1975 pointed out the need to restructure the elementary education programme to make it responsive to present day needs, less subject-centred and overcrowded, more flexible in scheduling and more development-oriented. In response to this need, the Experimental Elementary Education Programme (EEEP) was tried out in 125 school divisions involving 1,500 classes throughout the country.

The EEEP offered fewer subjects in grades I–III, with focus on the basic language and mathematical skills as well as thinking skills. An important feature in the new curriculum is the integration of language and reading in communication arts Materials from science, health education and social studies were used in the development of communication skills in English or Filipino. The curriculum also included work education and remedial work or reinforcement activities.

A comprehensive in-service training programme accompanied curriculum changes under the EEEP. It included orientation for chiefs of elementary education at the national level, and regional seminars for school officials and try-out teachers. These programmes were supplemented by a mobile training programme undertaken by the Bureau of Elementary Education (BEE) researchers.

A monitoring and evaluation scheme was installed to ensure the smooth implementation of the programme.

The reduction of subject areas as well as the provision for remedial work and enrichment activities received a favourable response from the teachers concerned

The results of the EEEP were valuable inputs to the New Elementary School Curriculum, which is being implemented, starting from 1983–1984

e) Reduced Instructional Time (RIT)—Thailand

This research and development (R & D) project emerged from the common observation that (i) teachers very often take time to teach what the pupils have already learned, (ii) teaching sometimes does not allow pupils to progress at their own pace, and (iii) learning in some situations can take place without teachers. With these factors in view, the project attempted to reduce (i) time for teacher-pupil face-to-face interaction, and (ii) the learning time of pupils so that time thus saved could be used by the teachers for other necessary activities and by the pupils to learn other new concepts. The success of the project will provide a new alternative which is more economical and effective for the conduct of teaching/learning. To achieve these objectives, new modes of learning such as peer-group learning and peer-pair learning were utilized In addition, instructional materials such as programmed texts, project and experiment manuals, incomplete stories and wooden cards were developed. The findings indicated that a substantial amount of time can be saved with no loss in learning quality, and the time saved differs in accordance with the types of learning, grade level and learning strategies.

f) Micro-teaching approach for improving teaching competencies—Thailand

This project attempted to develop teaching skills for student teachers in teacher training colleges. The project was implemented in three stages:

i) A pilot try-out in a school was conducted to ascertain the effect of micro-teaching on the teaching behaviour of student teachers and to adapt the technique to the Thai situation.

ii) An orientation programme for the teaching and supervisory staff was carried out.

iii) Based on the findings of the pilot and orientation stages, micro-teaching was introduced into the regular teacher education programme.

The results of the project revealed that student teachers who had undergone micro-teaching were more competent in teaching than those who had not. This encouraged more teacher educators to use the technique in the preparation of student teachers.

g) The Elementary and Middle School Project (EM)—Korea

The EM project of the Korean Educational Development Institute (KEDI) is an example of a nation-wide innovative project conducted by an R & D institution supported by the Ministry of Education. It aimed at improving learning outcomes of students through the introduction of reformed instructional and management systems. The expressed objectives were to raise the achievement level of most students if not all, and to minimize disparity in achievement levels between rural and urban schools. The project includes various components such as reassessment of national goals and objectives of education, revision of curriculum development and tryout of instructional design, instructional materials, teacher in-service training, and management system The teacher in-service training component was considered very important. Teachers were invited to participate in designing and material development, and intensive training was provided for tryout. The lecture, demonstration, and discussion

methods were used and teachers were provided with close consultation of KEDI researchers during their tryout period. It was found that the more direct involvement of teachers was encouraged, the better teacher behaviour changes were observed. The KEDI EM Project's success may largely be due to wider participation of teachers, principals, and supervisors in the project from the initial stage and throughout the whole process of implementation.

3. Action research

Action research is concerned with small-scale intervention in the functioning of the real situation and a close examination of the effects of such intervention. Cohen and Manion (1980) describe action research as:

a) *situational*, i.e. concerned with diagnosing a problem in a specific context and attempting to solve it in that context;

b) *collaborative*, with teams of research and practitioners working together on a project;

c) *participatory*, with the team members themselves taking part directly or indirectly in implementing the research;

d) *self-evaluative*, in which modifications are continuously evaluated within the on-going situation, the ultimate objective being to improve practice in some way or other.

This approach has been used extensively in many of the research and development projects discussed in the preceding paragraphs. By its very nature, however, action research is eminently suited to projects at the local or school level Exemplars of action research are the follow-up study on the participants of the six month in-service programme on the Teaching of English as a Second Language (TESL) in Malaysia, and the school-based research for development project in the Republic of Korea.

Impact of research on teaching/learning practices

Many of the projects presented by countries in the workshop were of the experimental and developmental type. Because they are nationally conceived and executed, with the participation of other agencies at the provincial and local levels of government and administration, and are aimed at the identification and solution of specific problems in education, such projects generate a fairly high rate of application For example, the research and development projects in Indonesia have been incorporated into the national system and have had a direct impact on the teaching/learning process Investigation into the implementation and outcomes of educational policies and practice such as the Cabinet Committee Review in Malaysia and Project SOUTELE in the Philippines have led to major curriculum changes in both countries, leading to carefully structured plans for change at the school level. In Thailand, educational research has produced much knowledge and has brought about changes in teaching/learning practices–especially studies related to the principles of learning, child development stages and the role of the environment in learning and development In the Republic of Korea, the more successful research studies such as the Mastery Learning Project

(MLP) conducted by the Korean Institute for Research in the Behavioural Sciences and the Elementary and Middle School Project (EM) conducted by KEDI have directly influenced and enhanced teaching/learning practices. While the MLP provided channels and materials for individual and self-directed study by pupils, the EM project generated improvements in pupil achievement, changes in the affective domain, changes in school management, and better teacher inputs.

In spite of the success of these major projects, there is a feeling of doubt about the efficacy of the general body of research conducted by the various agencies concerned. Some of the problems and issues related to the application of research findings are discussed in the following paragraphs.

Some problems and issues related to the application of research findings

The simplistic view that the conduct of research and the dissemination of its findings to the practitioner would lead to the clarification of teaching/learning problems and thus pave the way for their eventual solution, has not been borne out by what really happens in the field. Some of the problems observed in the application of research to improve practice are related to: (1) technical and methodological weaknesses, (2) communication gaps between researchers and practitioners, (3) problems in organization and management, and (4) professional perspectives.

1. Technical and methodological weaknesses

Educational research is relatively a recent development in many of the countries, and there is room for refinement in both the quantity and quality of research. Two fundamental problems encountered are the lack of precision in the way educators conceptualize the educational problem, and the lack of understanding among those concerned in regard to the methodology and theoretical framework of educational research. For example, it has not been generally understood that educational research cannot be too narrowly conceived as pertaining to the school system alone. Because variables extraneous to this system are often not taken into consideration, the results of educational research are now always valid.

There would thus appear to be a pressing need for more regular and systematic training for both researchers and users of research so as to bring into proper perspective the nature of research, its methods and processes, and its relevance in relation to the problems it is intended to solve. Greater care should be taken to avoid duplication of research efforts and to institute more vigorous checks on the types of research undertaken as well as the methods and instruments adopted by researchers.

One persistent weakness is that research studies, especially those conducted by universities and other tertiary institutions, tend to be too theoretical while insufficient emphasis is placed on programme-oriented research. There is also the need to keep a balance between quantitative and qualitative studies as well as to use a variety of research methods and instruments which have been duly tested to ensure a greater incidence of validity and reliability of research findings.

2. Communication gaps between researchers and practitioners

Mention has been made of the general lack of understanding especially on the part of users of research about the nature and methods of research. Unlike practitioners

in other professional fields, teachers are often unable to apply the findings of research in their daily practice. This factor, and the limitations of educational research as a practical science, has led to a general lack of credibility regarding the relevance of research, and mutual distrust between researchers and practitioners.

Basic research, although well-conceived and well-implemented, cannot be immediately translated into practice. Its results have to be tested over time, and validated through a tedious process of try-outs and course-corrections in order to be adapted for practical application. This has often caused decision-makers and practitioners in education either to ignore the results of research altogether, or to use these results before they have been adequately tested. In the latter case, the consequences for educational practice can be quite serious.

The bureaucratic system, which is heavily entrenched in many educational systems in the region, has also contributed to the gap between research and practice. Policy-makers and bureaucrats are free from any compulsion to utilize research findings. They are often more concerned with other practical issues and concerns. The aloofness and the lack of understanding about administrative and management problems on the part of researchers have also not helped to bridge the gap between the two groups of people.

3. Problems in organization and management

One of the problems in organization pertains to the research effort itself. Research projects are often too fragmented, their implementation being poorly conceived and poorly organized. To ensure success in research implementation, a systems approach is essential.

The mechanics of dissemination of research findings is another important factor that could influence the extent of their impact on educational practice. There is often a lack of channels for the dissemination of research findings at the central, provincial and local levels with the result that policy-makers on the one hand and practitioners on the other hand remain unaware of the new trends in knowledge and their application.

The problem of dissemination and transmission is often compounded by the lack of professional support to sustain research-based educational development. Frequent changes of personnel at the various levels of administration, the inadequacy of training programmes, and the lack of regular and consistent financial provision further contribute to the absence of a clearly enunciated policy for the application of research results.

4. Professional perspectives

Some of the projects reported at the workshop record significant changes in teacher attitudes and behaviour during the implementation of the projects. For research to improve practice, however, there must be a sustained atmosphere of responsiveness to research and innovation in the schools.

In actual practice, various constraints operate against the undertaking of action research or the utilization of research findings by practising teachers. Research skills

do not rate highly among teachers in their list of duties and responsibilities. Other constraints are the heavy teaching load currently endured by teachers and the lack of funds for promoting research-based teaching.

In addition, there is perhaps an unrealistic expectation about the relevance or the uses of research on the part of teachers as well as policy-makers and administrators. It may not be feasible to expect research to provide definitive answers to problems which reflect local, personal or short-term factors.

The foregoing discusssion about some of the problems and issues related to research and its application makes it abundantly clear that a more systematic consideration of possible solutions to these problems must be attempted by the countries concerned. Some suggestions for the effective utilization of research findings are made in Chapter Three.

Chapter Two

REVIEW OF PILOT STUDIES AND OTHER RESEARCH

Pilot studies considered at the Workshop were based on several years of preparatory research and development activities.[1] The studies reviewed and discussed were as follows:

1. Cianjur Project of Indonesia. Professional support service to the schools and conducting of class evaluation in primary schools.
2. In-service course on Testing and Evaluation for Teacher Education - Malaysia.
3. A Six-month Primary Teacher Training Programme—Nepal
4. Developing Competence in the Use of Pilipino as a Medium of Communication, Instruction, Supervision among Teachers, Supervisors and Administrators: A Multi-Media In-service Education Programme—Philippines.
5. A School-Based In-Service Education Programme. Marine study programme and its teaching—Republic of Korea.

Besides the pilot studies, three major researches which have relevance to the theme of the workshop were reviewed namely:

1. An Innovative Programme. Programme for Decentralized Educational Development (PRODED), Philippines.
2. A Design of Pilot Study on Training of Teachers for Implementation of Integrated Curricula at Primary Level, Thailand.
3. Development of Models to train Teachers for Alternative Educational Programme for Mass Primary Education—Thailand.

The mode of operation of the first five pilot studies referred above included some of the following steps:

1. Initial meeting of research team for several countries for developing a design for a study;
2. National status studies conducted by the participating countries;
3. Review meeting organized for exploring the state of the art, developing methodologies of evaluation and renewal of in-service education for primary teachers;
4. National workshop in all participating countries to develop alternative models of in-service programme for primary teachers;
5. A meeting of the country teams of the participating countries to develop alternative models of in-service education for primary teachers; and

1. The first five pilot studies were connected with outcome of research and development work undertaken by the countries within the context of APEID.

6. Final phase of the activities–pilot testing of best model by the respective country.

1. Review of pilot studies and the approaches used

The Workshop discussed pilot studies of six member countries namely. Indonesia, Malaysia, Nepal, the Philippines, the Republic of Korea and Thailand. A critical analysis of the reports shows that varied approaches were used to carry out the studies. The studies are presented according to the approaches used.

National comprehensive research and development approach

a) The Cianjur Project of Indonesia. Professional support service to the schools and conducting of class evaluation in primary schools.

The Cianjur Project, designed by BP3K in 1979 illustrates the fusion of supervision and in-service teacher education with good teaching/learning practices. It derived cues from field observations and experiences which had indicated that no significant changes had taken place in the teaching/learning process in schools in spite of the implementation of the new curriculum for primary schools in 1975. This project was discussed in India[1] as an alternative in-service education programme model, and proposed and initiated as a pilot project of in-service primary teacher education.

The project aims to (i) improve the quality of teaching/learning in primary schools by providing better professional support for teachers, and (ii) strengthen the in-service education programme to improve the competencies of teachers, head teachers, supervisors and administrators. The project design encompasses investigative research into traditional teaching/learning practices in schools and in-service education centres, developing models for 'new' practices. monitoring and evaluating the professional support systems, and the dissemination of project results. (See Figure 3).

The project, which is still in progress, affected the behaviour and teaching styles of teachers.

b) Programme for Decentralized Educational Development, Philippines

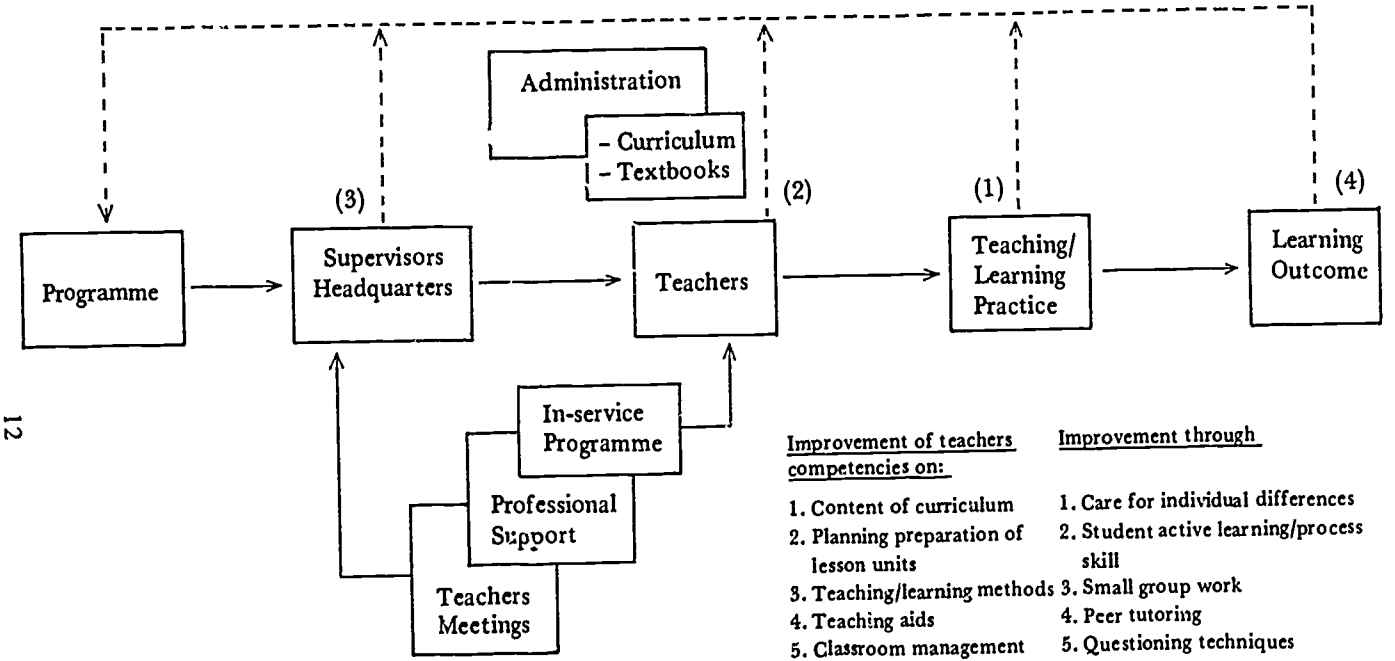
The Philippines four-year (1982-1985) elementary education development programme known as the Programme for Decentralized Educational Development (PRODED) is part of the Ten-year Development Programme. It derived direction from the findings of previous studies which focused on increasing the quality and efficiency of depressed, disadvantaged and underserved schools

PRODED aims to reduce disparities in elementary education among and within regions, raise the overall quality and efficiency of elementary education, and improve the management capabilities of the system, especially at the regional and sub regional levels. It is specifically intended to improve pupil achievement, decrease drop-out rates, raise survival and participation rates, increase pupil teacher ratio and raise the efficiency of the total education system.

PRODED strategies include introducing reforms in the curriculum, providing improved and adequate textbooks and supplementary instructional materials,

1. APEID. Finalization Meeting on the Joint Innovative Project, New Delhi, 3-12 December 1981. *In-service primary education in Asia: report.* 1982. p. 37.

Figure 3. The process of improving teaching/learning practice – A.. alternative of school based model



Improvement of teachers competencies on:

1. Content of curriculum
2. Planning preparation of lesson units
3. Teaching/learning methods
4. Teaching aids
5. Classroom management
6. Utilization of school environment as learning resource
7. Evaluation
8. Conducting simple school based research

Improvement through

1. Care for individual differences
2. Student active learning/process skill
3. Small group work
4. Peer tutoring
5. Questioning techniques
6. Discussions
7. Utilization of simple teaching/ learning aids
8. Utilization of environments as learning resources
9. Feedback to students

improving staff development programmes, providing adequate school facilities, installing an effective monitoring and evaluation system, and including research to undergird policy-formulation.

A monitoring-evaluation system was installed to ensure that the performance targets are met. This system involves achievement testing and collection of data in pupils and educational resources at the beginning of the implementation of the programme and at regular intervals at the national and local levels.

In this programme, a new elementary school curriculum (NESC) is scheduled for year-by-year implementation beginning 1983-1984. The NESC seeks to meet the national development requirement and fulfils research-based recommendations for curriculum change. It is intended to ensure that every child will be adequately equipped to assure his continuous progress in learning.

The proper implementation of the programme depends upon the readiness of the personnel involved. In this regard, the Educational Reorientation Programme (ERP) which is the staff development component of PRODED, has developed and implemented a system of upgrading capabilities of the project staff at central, regional, and sub-regional levels for their committed and effective support of PRODED objectives.

The programme has two phases. a formal and non-formal learning strategy.

Formal phase. The formal phase of this programme, which is a 6-7 day live-in seminar on values, beliefs, interpersonal skills and technical and/or management and organizational skills started in 1982. It aims to redirect the educational system towards a more relevant, responsive and nationalistic educational reorientation.

Non-formal phase. The non-formal phase consists of providing a curriculum for staff development that will be self-managed and administered by the participants themselves. Non formal training will be conducted through group study of instructional materials to be distributed to the target groups of each training programme.

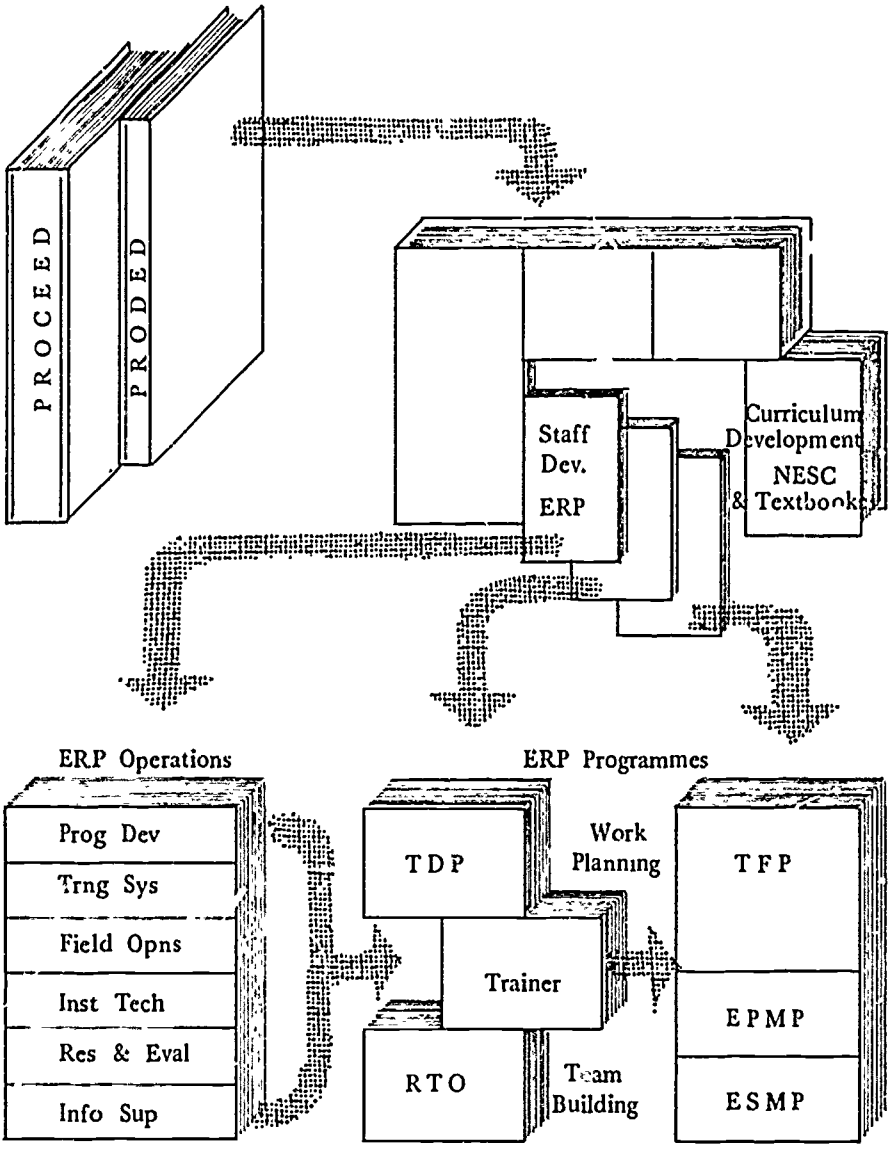
The primary mechanism for the delivery of the non formal training inputs is the Learning Action Cell (LAC). The LAC is grounded on the general training strategy of ERP which calls for a process of continuing, multi-level and action-focused reorientation of the country's public elementary school educators.

At the LAC level, PRODED has started distributing tape recorders and cassettes. It is envisioned that future training activities will emphasize the use of non-traditional materials.

c) Development of Model to Train Teachers for Alternative Educational Programmes for Mass Primary Education; Thailand

This project emerged from a common observation that many innovative programmes addressed to national educational problems or issues failed because of inadequate training or retraining of teachers. Thailand has implemented two nation-wide programmes. Functional Literacy and Automatic Promotion. Undoubtedly, these programmes need a new set of teaching strategies/styles of teaching behaviour to ensure smooth implementation. The need, therefore, is teacher training or retraining.

Figure 4. Proded Orientation Inputs: A Schematic Presentation



Stage I: Identification of critical teacher behaviours needed for each programme. By using "critical incident technique" and other instruments, 2,462 incidents for automatic promotion and 739 incidents for functional literacy were collected. These incidents were categorized and translated into training needs.

Stage II: Development of training packages. Based on training needs, training packages were developed. Each package consists of modules for several learning units.

Stage III: Evaluation of the project and target of the training packages. The findings revealed that teachers for the two programmes retrained by utilizing training packages gained higher achievement than those teachers retrained by regular methods. Teachers showed favourable opinions towards training programmes using packages than regular training course.

Training college-based approach

In-service course on Testing and Evaluation for Teacher Educators – Malaysia.

Newly recruited teacher educators have, since 1979, undergone a two to four week orientation programme to acquaint themselves with current trends in teacher education and to be exposed to new teaching/learning approaches and practices. In-depth courses on specific subject areas have also been held at the central level. In addition, follow-up courses at the college level have been conducted in such subject areas as testing and evaluation, micro-teaching and the concepts and strategies of the new primary school curriculum. The pilot study scheduled for 1984 will attempt to further strengthen the capabilities of teacher educators in the implementation of college-based in-service education with particular emphasis on the subject of testing and evaluation. In a series of centralized courses, key teacher educators had been identified to fulfil leadership roles in each college. One college will be identified as the venue for localized workshops by the key teacher educators concerned, initially in collaboration with the Teacher Education Division. External assistance will gradually be phased out in the implementation of the programme.

The entire programme is built on the principle of equal partnership between the college authorities, college tutors and the participants. It is expected, therefore, that all the three parties would be actively involved in planning, implementation and evaluation of the programme.

Other features of the programme include:

a) Incorporation of needs assessment as the basis for the formulation of the programme design;

b) Utilization of a variety of training approaches e.g. multi-media self-instructional modules;

c) Utilization of local human and other resources; and

d) Incorporation of built-in systems for both formative and summative evaluation with regard to acquisition of knowledge and skills and post-course effectiveness of participants.

Problem-oriented approach

a) Developing competence in the use of Pilipino as a medium of communication/ instruction/supervision among teachers, supervisors and administrators. a multi-media in-service education programme; Philippines.

This study aimed to develop the communicative competence of classroom teachers, head teachers, principals of district and division supervisors in Pilipino, and was conducted in Region VIII (Eastern Visayas) in the Philippines from April to July 1983.

In this study a multi-media in-service education programme (MMIEP) was evolved to meet the needs of the participants. This MMIEP used activities such as listening to tape lessons, self-learning modules, face-to-face class discussions, oral and written tests, demonstration teaching, practicum and application of what had been learned by conducting echo-training for teachers and school administrators in their own school divisions.

At the start of the study, pre-tests were given for oral and written proficiency plus a questionnaire on attitudes towards the use of the language. At the end of the training programme post tests were administered to measure gains in achievement

The findings revealed that MMIEP is an efficient and effective strategy for developing language competence and attitude among non Pilipino speaking school administrators, supervisors and teachers.

b) A six-month package primary teacher training programme, Nepal

On the basis of various empirical studies by the Ministry of Education, Nepal, a six-month package programme was developed to provide effective in-service training for all primary teachers. It is skill-oriented, of short duration and intensive. The curriculum was designed to provide comparatively adequate skill training to teachers who in turn are expected to provide an effective teaching/learning environment for students.

The training programme uses various modes of instruction including the lecture method, observations, demonstration teaching, seminars and practicum in order to provide the teacher with a set of competencies needed for effective teaching/learning practices to produce good classroom results. Feedback from previous training was utilized to improve future training. The training package provides a complete programme in terms of objectives and curriculum and has its own evaluation system

c) A design for a proposed pilot study of training of teachers for implementation of integrated curriculum at primary level, Thailand.

Efforts have been made in Thailand to improve the quality of education at the primary level. There was a general consensus among Thai educators that qualitative improvement depends upon the provision of a relevant and meaningful education for the total development of the child. The integrated curriculum was then evolved for achieving the goal, and was introduced in 1978.

The structure of the curriculum comprises of four areas of learning experiences on basic skills development, life experiences, character development and work-oriented education.

To ensure successful implementation of the curriculum, a programme for training teachers both for the pre-service and in-service, was developed.

The objectives for the training programme were set. Three studies were conducted simultaneously in order to get adequate data and information to serve as inputs to this integrated curriculum.

The studies conducted were on the following. (i) discrepancy and congruence between the newly-developed integrated curriculum for primary level and the existing teacher training curriculum, (ii) teaching competencies needed for the implementation of the integrated curriculum, and (iii) a study of problems met by teachers trained under the existing teacher training curriculum in connection with implementation of integrated curriculum.

The findings from the three studies were analysed and used to modify the teacher training curriculum The development of the syllabus and preparation of instructional materials followed.

For the present, the syllabus and instructional materials are being tried out with the student teacher and teachers who are taking in-service courses in two teacher training colleges At the end of the 1983 academic year, an evaluation will be done to test the effectiveness and efficiency of the new curriculum and the instructional materials.

The multi-instructional media developed for the project is composed of the syllabus, learning modules, films, slides, tapes and video tapes.

Based on the findings, changes and revisions will be effected to ensure the successful implementation of the integrated curriculum.

School-based approach

Marine Study and Its Teaching. School-based in-service Education, Republic of Korea.

School-based in-service education as tried out in Juwon Junior Primary School, is an activity planned and carried out under the responsibility of the school principal.

The specific study was on "Marine Study and Its Teaching." Its primary objective was to answer the teacher's needs in terms of teaching materials and teaching strategies It is also aimed at keeping teachers abreast of educational innovations to improve teaching/learning activities specifically from research-based studies.

The study was carried out in its natural setting as the control group was not necessary. The action research had been carried out with the involvement of the total teaching force headed by the school principal in a manner of continuous, collaborative, participative and concerted efforts to realize its objectives.

Adequate literature, research papers and other resources connected with the study were collected and analysed through group discussion. The school came up with a text on marine study education for use in the classrooms. Based on the textbook analysis, the teachers developed a core curriculum for the subject.

Side by side with the production of curriculum materials, the teachers, together with their principal, synthesized and utilized the basic inquiry approach model in

their teaching/learning activities. The teachers underwent training on the inquiry approach and produced 131 lesson plans.

The group utilized different types of activities for the in-service education programme like group discussion, lectures, observations, demonstration teaching, reports, successful case reports and practicum, and teachers and pupils derived many benefits in terms of teaching and learning skills.

2. The pilot studies–general assessment

a) Objectives

In all participating countries, the objectives of the pilot studies were addressed to the improvement of the quality of primary education through in-service training programmes. Generally, objectives were problem-oriented in the sense that they were based on systematic assessment of the needs of the intended clientele (e.g. teachers, supervisors, teacher-educators). The long-term objectives were distinguished from the short-term objectives just as the general objectives were distinguished from the specific Specific objectives were geared to specific problems.

The major objectives of the pilot studies may be summarized as follows (i) provide adequate training or retraining of teachers, principals and supervisors to be able to implement curriculum programmes, (ii) update teachers on new trends and developments in particular subject areas like language, mathematics, social studies and science (iii) make teachers aware of their immediate environment and utilize this environment as laboratory for learning, (iv) utilize varied modalities in in-service programmes, and (v) develop desirable attitudes and a sense of commitment to perform their role as teachers and as change agent in their community.

Specific objectives as much as possible were expressed in behavioural terms having in mind the specific needs of the clientele. In Indonesia and the Philippines for example, objectives were addressed to the needs of teachers as well as to the school heads, supervisors, and administrators. In Malaysia, focus of training was on the needs of teacher-educators who will take charge of the college-based in-service programmes. In Thailand and Nepal, while different approaches were used, objectives were addressed to the training and retraining of teachers in order to ensure a smooth implementation of the curriculum programmes. In the Republic of Korea, the objectives of the pilot study were very specific to the target clientele. They are intended to solve on-the-spot problems of the teachers in the classroom.

While the focus of the pilot studies was on the upgrading of knowledge and skills of the teachers, attitudinal objectives were not overlooked. This aspect was clearly seen in the Cianjur Project of Indonesia and the Multi-Media In service Education Programme of the Philippines;

b) Implementation

In all pilot studies, it was noted that there was a concern for systematic planning, implementation, monitoring and follow-up of the in-service education programme In such activities, several agencies/committees or groups were involved While the degree of participation differed in the various committee levels, there was evidence that there was broad-based participating in the various stages of implementation

Broad-based participation and collaborative effort from planning to implementation were clearly seen in the school-based project in the Republic of Korea where the teachers were actively involved in the planning, implementation, and evaluation. In this way, the teachers clearly saw the relationship between what they are trying to do and the changes they will bring about among themselves and the students. This confirms the principle in management that people to whom an activity is to be introduced should be involved in planning in order to maximize effectiveness.

Similarly, other pilot studies pointed out the importance of establishing linkages with teacher training institutions and other agencies involved in teacher training programmes.

From the country experiences, using of a variety of training approaches seemed more effective than using non-traditional approaches. The participating countries used the following approaches:

i) lecture/demonstration;
ii) demonstration leading to innovative teaching methods in the class,
iii) group discussion;
iv) lecture-demonstration-practicum;
v) use of multi-media mix (print media, face-to-face, tapes), and
vi) modular self-instructional materials.

Innovative systems of in-service education were considered. The combination of multi-methods to replace face-to-face lectures and the use of printed media has been evident in these pilot studies.

The utilization of local human/material resources was evident in all pilot studies. The experts available in the localities were used as resource persons. The low-cost instructional materials that were developed facilitated the progress of the studies.

It was also noted that evaluation was an integral part of the various activities in the programmes. Thus, systematic monitoring and evaluation schemes were installed to ensure the smooth implementation of the programme at all stages. Immediate feedback at any stage of the programme provided cues for modification and improvement. As in the Cianjur Project in Indonesia, external evaluation was resorted to in addition to the built-in evaluation mechanism employed.

c) Research findings

Findings in the pilot studies revealed that the programmes had influenced the behaviour of teachers, school heads and supervisors and the teaching styles of teachers. Teachers and supervisors felt that they are more open to innovative ideas, more open to criticism, willing to grow professionally and more supportive of activities to improve teaching/learning practices. However, one single programme for in-service education may not be adequate to bring about permanent changes among participants. A continuing programme may be required to achieve desired results.

There was evidence of increasing involvement of teachers in planning, implementing and evaluating all stages of the programme.

In the programmes tested, innovative delivery systems were employed. The use of multi-media materials was common in Thailand, Nepal, and the Philippines studies. The findings of the pilot tryout indicated positive results in favour of the training packages of the project. Specifically, critical teacher behaviour needed for the aforementioned alternative programme is identified and packages are used to develop the same in the teachers. In addition, other benefits can be derived by using the products of the project. Products, in the form of training materials, can be used for (a) teachers involved in the two programme, (b) teachers in the regular programmes, prospective teachers, and (c) college lecturers who have had no previous training.

Tests developed for evaluating changes of teacher behaviour can also be used with those prospective teachers for certification. It is expected that if the training packages and the testing instruments were applied to several groups of teachers, pre-service and in-service, changes in teaching behaviour in particular and changes in the final outcomes of pupil's learning in general will take place.

3. Conclusion

The countries' experiences in the pilot studies in the application of research findings in improving teaching/learning practices indicate that greater effort and resources should be committed to the continuing tryout and research on models of in-service education. It may be stated at this point that research findings will go a long way towards improving in-service programmes in all participating countries, which will result in the improvement of teaching/learning practices.

Chapter Three

STRATEGIES FOR IMPROVING THE APPLICATION OF RESEARCH FINDINGS

Educational research may have become a fashionable activity, but it does not seem to satisfy, in the developing countries, the needs of its clients, the policy makers, supervisors, administrators, and teachers. The workshop therefore examined and analysed existing conditions affecting the application of research findings in order to find ways of applying findings to improve teaching/learning practices.

As discussed earlier, one of the problems identified is related to technological and methodological weaknesses. This situation points to the need for a systematic and intensive training of the researchers and practitioners in the nature and methods of research. The training must equip the researchers with the knowledge, skills and attitudes needed to undertake research. Courses in research methods should include a component addressing issues of utilizing research findings. This would help to develop in them an appreciation that they must do more than simply produce a report if they want their findings to be used. Such skills may be enhanced through professional courses in teacher training institutions or through in-service programmes. Closer attention to these needs could bridge the gap between researchers and practitioners.

As a consequence of the lack of understanding of the nature and methods of research, practitioners are often unable to translate research findings to actual practice in the field. Research findings are not fully appreciated and given due importance. As such, there is a need to set up a mechanism to guide practitioners in the full use of research findings. This mechanism may be a co-ordinating body set up in the national level which will be responsible for getting research findings analysed, synthesized and presented in forms understandable to the practitioner. In cases where such mechanisms already exist, their functions must be revitalized and strengthened to facilitate the use of research findings.

In the participating countries, the most common way of disseminating research information is through publications. This method has been found wanting. To be more effective, this method must be supplemented by varied channels of dissemination and include lectures, forums, meetings, conventions, press releases and, whenever possible, a co-operative undertaking of the researcher and the practitioner in the application of research findings.

The conventional printed word is no longer adequate or appropriate to disseminate research findings. Conferences and seminars may be organized where research findings can be discussed in-depth for better understanding and full appreciation.

Research to improve teaching/learning practices

If research findings are to be fully used, dissemination of information must recognize the sociological, interpersonal linkages among people. By working within subgroups of people, change based on research can be more easily brought about.

Clearing house facilities need to be established or strengthened and perhaps better computerized to facilitate access and implementation results.

As mentioned earlier, it is felt that an effective management system is needed in the application of research findings to improve teaching/learning practices. Early in the planning stage, the agencies involved should be identified and their responsibilities clearly defined. As far as practicable, the implementing agency should describe ways to involve appropriate personnel to promote feelings of participation and commitment It is therefore necessary that a linkage among the different agencies involved in policy formulation, planning and implementation be developed so that research results can be increasingly useful.

Following are suggested models of management systems in the application of research findings.

Figure 5 gives some suggestions to be considered in the application of research findings in the improvement of teaching/learning practices. The four columns illustrate four types of models. Under each model, the two cells represent the commitees involved in the research. The role of each committee in the application of research findings is well-defined in each cell.

Model 1, for example, illustrates that the central committee undertakes the major responsibility in all stages of programme implementation. Planning emanates from the central committee. While the local committee implements the project it has very limited involvement in planning. The central committee provides direction and co-ordination in project implementation.

Model 2 reflects the role of the central committee in disseminating information about relevant findings of research. The central committee encourages the local committee to study the research findings and formulate research proposals on the basis of identified needs. The model thus illustrates that the local committee is given the major responsibility from planning to implementation of the project. Although the local committee assumes the major responsibility in project implementation, the central committee establishes a close link with the local committee in order that the needed assistance can be given to ensure successful implementation of the programme.

In Model 3, the responsibility of the central committee diminishes in degree. The major responsibility in programme implementation rests on the local committee from the identification of needs, to planning and implementation. Broad-based participation specifically of persons involved is imperative. This confirms the principle in management that people who will implement the programme should be involved in planning in order to maximize effectiveness.

While it is true that the responsibility of the central committee diminishes, it establishes linkage with the local committee in the conduct of the research through its monitoring function.

Of particular interest in Model 4 is the fact that the school committee assumes the major responsibility in all stages of programme implementation. The school

Figure 5. Models of Application of Research Findings

Model 1 Major role at the central level with support of local implementation	Model 2 Major role at the local level with central support and assistance	Model 3 Major role at the local level with limited central support	Model 4 Major role of the school (through school-initiated programme) with limited central support
1. Organize a committee to study recommendation of research 2. Prepare research design and implementing guidelines 3. Orient project staff 4. Prepare project materials 5. Oversee/monitor the project 6. Provide technical assistance 7. Serve as clearing house 8. Monitor/supervise/evaluate the project 9. Prepare project report 10. Disseminate findings	1. Disseminate innovative models of in-service programme 2. Review revised proposal 3. Co-ordinate/monitor the project 4. Assist local agency in disseminating findings	1. Disseminate the findings of research 2. Encourage local educators to conduct researches on the basis of findings 3. Review/approve proposal 4. Monitor implementation of the project 5. Disseminate findings	1. Disseminate findings and encourage schools to undertake researches on the basis of needs of teachers
1. Organize committee to handle the project 2. Orient project staff on the mechanics of the project 3. Implement the project 4. Monitor/evaluate each activity 5. Submit periodic feedback to central committee	1. Study the suggested model and revise/modify on the basis of needs 2. Submit the revised model for approval/for funding 3. Organize the committees to handle the project 4. Prepare programme materials 5. Implement the project 6. Monitor/supervise the project 7. Prepare project report 8. Revise the model on the basis of the findings	1. Identify problems related to findings 2. Organize project staff 3. Prepare research proposals 4. Submit research proposals to central committee for approval/funding 5. Revise/modify proposal (if needed) 6. Prepare project materials 7. Orient personnel on mechanics of implementation 8. Implement the project 9. Monitor the activities 10. Prepare/submit project report to central committee 11. Disseminate findings	1. Assess needs of teachers 2. Organize school committee to manage the project 3. Prepare project proposal on the basis of needs 4. Revise/modify proposal if necessary 5. Prepare project materials 6. Orient teachers on the use of materials: discussion; lecture/demonstration; role playing, etc. 7. Implement the project 8. Monitor/supervise activities 9. Prepare project report 10. Furnish central committee with the findings

committee identifies its needs, and plans and implements the programme to satisfy those needs. Very limited support in the programme implementation emanates from the central committee. Nevertheless, the school committee updates the central committee in the findings of research which may be useful in improving teaching/learning practices in other schools.

The models just discussed indicate that the role of each committee varies from model to model, and may vary from types of research undertaken. The uses of such models deserve careful consideration. They may be used in the context of specific needs and problems.

In the tryout of the models, evaluation is a very vital component. It becomes a very necessary condition for the conduct of the total programme towards achieving its objectives. It is of relative importance that an evaluation, feedback and renewal mechanism must be installed. Such a system requires a mechanism of diagnosis, appraisal, feedback and remedial action at all stages of the programme. Feedback is a mechanism that serves as a basis for continuous assessment and modification. Improvement results from the feedback. Since there is no such model that will fit research programmes, the development of models should be a continuous process. Findings, therefore, could provide cues for renewal of programmes.

Suggestions for improving the application of research findings

In the light of the findings of the workshop, the following suggestions have been made to improve the operational systems for the planning, implementation and utilization of research in education.

A systems approach is recommended when developing a national policy for undertaking research and the application of its findings. This approach incorporates the stages of conceptualization, formulation of design, training, implementation, dissemination, application, and evaluation.

1. Conceptualization

From the stage of conceptualization, it is important that the principle of participatory planning be adopted, with full involvement of researchers, policy makers and users of research. The establishment of a national research commission comprising representatives from all three groups will help ensure that research policy is clearly conceived and well co-ordinated.

Before research is undertaken, the commission must be clear about the nature, function and uses of research. It should view education as an integral part of society, and educational research as an important and interdependent component of the education system. This would assist the commission in identifying the type of research most appropriate for the problem at hand.

Finally, the identification of research needs by the commission should take into consideration the views of both researchers and practitioners at the national, provincial and local levels. The use of a fully-tested instrument would ensure that needs assessment is carried out in a scientific manner.

2. Formulation of design

The research design should take into consideration the need to view research and its application as links in the same continuum. It is important that there should be a balance between quantitative and qualitative methods that could be used by the researchers. Acquaintance with the merits and demerits of alternative models of research would help those responsible for the formulation of research designs to avoid being overdependent on any one model.

In planning for research, the commission should ensure that although a substantial amount of theoretical and basic research would still have to be promoted, greater use should also be made of research and development as well as action research models

It is necessary that the research design should be tried out before implementation, not only with respect to the administration of the research itself, but also in terms of the sequence for dissemination and application.

3. Training

In order to institute a logical mechanism for the implementation of a research project, it is first necessary to establish a regular and systematic training programme concerning research and its utilization. An effective means of training is the formal in-service course of three to six months provided by universities and other tertiary institutions. Shorter courses for interviewers and research assistants could also be held according to the needs of any particular research project. These normal channels for training should, however, be supplemented and complemented by the adoption of a clinical approach, whereby potential researchers are attached to research institutions for designated periods to work under the guidance of experienced researchers. Collaborative research programmes involving members of research teams from national, provincial and local levels would further orientate all those concerned to the multi-dimensional problems of educational research and development.

The issues and problems of research utilization cannot be over-emphasized. There is a need to sensitize potential users of research so that they are able to understand and interpret research data as well as be willing to initiate changes both structurally and substantially.

4. Implementation

At the implementation stage, it is necessary to ensure that the administrative and professional components of the project network are fully co-ordinated and synchronized. The yearly provision of financial and other resources to the institutions and agencies involved would help obviate the necessity to interrupt research activities at any stage of their implementation.

A realistic time frame for the commencement and completion of the project will not only contribute towards its smooth operation, but also make for mutual understanding between the research team and other personnel involved in the exercise

The establishment of a professional support system for a research and development project should receive careful thought and consideration. Administrators and other users of research should be sensitized not only to the need for a practical support network, but also to the realities of the research sequence in which research

instruments and research findings have to be tried out and validated before they can be approved for implementation.

5. Dissemination

One of the most crucial factors underlining the success of a project is its dissemination to those at all levels of its administration and implementation. A carefully conceived strategy for dissemination would include the establishment of a permanent agency which could fulfil this function.

The creation of such an agency will help ensure that research reports are continually received, and are carefully scrutinized for further stages of project implementation. To help reduce the gap between researchers and practitioners, the research findings should be published in technical as well as layman's editions. In addition, the preparation of a detailed administrative handbook setting out the steps and procedures for the application of the findings would be of immense benefit to those ultimately responsible for project implementation at all levels of the network.

To complement the dissemination of research findings through publications in these various forms, there should also be avenues for wider publicity. Press releases and special programmes over radio, television and other media would help promote the understanding and responsiveness of the general public and teachers in the field to research and its application. In addition, seminars and workshops specially convened to discuss research findings and the measures to be taken to implement them should feature prominently in any strategy for dissemination.

6. Application

It is the teacher who would in the final analysis be responsible for translating the findings of research into practice in the classroom. An atmosphere conducive to research-based teaching must be cultivated so that fear of research and distrust of researchers on the part of the teacher can be minimized. One of the ways in which this could be effected would be to involve the teacher in the preceding steps of research application. Active encouragement of action research at the school level would also help prepare the teacher for involvement in gradual stages in the application of more sophisticated forms of research.

Teacher attitudes and behaviour are crucial factors in the cultivation of desirable teaching/learning practices in the classroom. Care must be taken to sustain the positive attitudes and high motivation that teachers normally display during training and active involvement in curriculum projects. Efforts should also be made to devise mechanisms for the transmission of the enthusiasm of project teachers to their colleagues at the school level. The promotion of school-based training and development projects could be one of the ways in which this could be achieved.

Besides the cultivation of professional zeal and other intrinsic measures, other factors that would minimize teacher resistence to research-based teaching should also be considered. These include the improvement of classroom conditions such as teacher/pupil ratios, class-sizes and the provision of adequate facilities, equipment and materials.

7. Evaluation

Finally, evaluation should be integrated into the various stages of any research-application model. Results of the evaluation exercise should in turn be channelled into the implementation scheme for continuous course-correction and to ensure the renewal of the programme.

In conclusion, it can be re-emphasized that if research is to become an effective instrument for educational reform, it must be accepted by all concerned as an integral part of the educational process. In the participating countries, there are indications that findings generated by research have been useful in making educational plans more systematic, curriculum programmes more relevant, and researchers in education better organized to help solve pressing educational problems. It is hoped that the guidelines would be able to contribute further to the progress already made in the region.

ANNEXES

Annex I

AGENDA

1. Opening of the meeting

2. Consideration of the agenda and provisional schedule of work

3. Review of research and evaluation studies of teaching/learning and in-depth analysis of problems and issues related to application of research findings

4. Identification and assessment of the strengths of recent research programmes, aimed at improvement of the teaching/learning process, which could be used in different combinations by all countries to facilitate and enhance applicability and applications of research findings to reform the teaching/learning practices

5. Consideration of strategies for improving research approaches and the application of research findings to improve teaching/learning practices

6. Selection and description of exemplars of new models of research approaches and models of effective application strategies used successfully in the region

7. Consideration and adoption of the draft report of the meeting

8. Closing of the meeting

Annex II

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Annex III

LIST OF DOCUMENTS

Information Documents

ROEAP (ACEID)-83/SPO/3/INF. 1 - General information

Working Documents

ROEAP (ACEID)-83/SPO/3/1	-	Annotated agenda
ROEAP (ACEID)-83/SPO/3/2	-	Provisional schedule of work
ROEAP (ACEID)-83/SPO/3/3		Qualitative improvement through professional support for teachers in primary schools, Indonesia, by Agus F. Tangyong and Wahjudi Suseloardjo
ROEAP (ACEID)-83/SPO/3/4		Country report on pre-evaluation of quantitative improvement of primary education through professional support system, Indonesia, by Agus F. Tangyong, Wahjudi Suseloardjo, and Hugh Hawes
ROEAP (ACEID)-83/SPO/3/5		Country report on research findings and their application for improvement of teaching/learning practice: An alternative model of in-service training programme for primary school teachers, Indonesia, by Agus F. Tangyong, Wahjudi Suseloardjo, and Hugh Hawes
ROEAP (ACEID)-83/SPO/3/6	-	Design for pilot testing of a model of in-service teacher education, Malaysia, by Goh Keat Seng and L. M. Fredericks
ROEAP (ACEID)-83/SPO/3/7		Some issues in the promotion of research and the application of its findings for the improvement of teaching/learning practices: Implications for in-service teacher education, Malaysia, by Goh Keat Seng
ROEAP (ACEID)-83/SPO/3/8		In-service training of primary teachers in Nepal: Search for strategies for improvement and effectiveness, Nepal, by Dr. Keder N. Shrestha
ROEAP (ACEID)-83/SPO/3/9	-	In-service training of primary teachers. Innovation for effectiveness, by Dr. Keder N. Shrestha

ROEAP (ACEID)-83/SPO/3/10	Developing competence in the use of Pilipino as medium of communication/instruction/ supervision among teachers, supervisors and administrators: A multi-media in-service education programme, Philippines, by Carmen A. Esparat
ROEAP (ACEID)-83/SPO/3/11	Guidelines for the application of the findings of research and pilot studies to improve teaching/learning practices, Philippines, by Edith B. Carpio
ROEAP (ACEID)-83/SPO/3/12	School-based in-service education for primary school teachers in Korea, Republic of Korea, by Dr. Yong-Duck Paik and Dr. Hong-Kyoo Byun
ROEAP (ACEID)-83/SPO/3/13	General guideline on application of research findings for improvement of teaching practice, Republic of Korea, by Dr. Choong-Haeng Kim
ROEAP (ACEID)-83/SPO/3/14	The project for development of models to train teachers for alternative educational programmes for mass primary education, Thailand, by Tanom Intarakumnerd
ROEAP (ACEID)-83/SPO/3/15	Application of research findings for improvement of teaching/learning practices: Thailand experiences, Thailand, by Tanom Intarakumnerd

The Asian Programme of Educational Innovation for Development (APEID) has as its primary goal to contribute to the building of national capabilities for undertaking educational innovations linked to the problems of national development, thereby improving the quality of life of the people in the Member States.

All projects and activities within the framework of APEID are designed, developed and implemented co-operatively by the participating Member States through over one hundred national centres which they have associated for this purpose with APEID.

The 24 Member States participating in APEID are Afghanistan, Australia, Bangladesh, China, Fiji, India, Indonesia, Iran, Japan, Lao People's Democratic Republic, Malaysia, Maldives, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Samoa, Singapore, Socialist Republic of Viet Nam, Sri Lanka, Thailand and Turkey.

Each country has set up a National Development Group (NDG) to identify and support educational innovations for development within the country and facilitate exchange between countries.

The Asian Centre of Educational Innovation for Development (ACEID), an integral part of the Unesco Regional Office for Education in Asia and the Pacific in Bangkok, co-ordinates the activities under APEID and assists the Associated Centres (AC) in carrying them out.

The eight programme areas under which the APEID activities are organized during the third cycle (1982-1986) are:

1. Universalization of education: access to education at first level by both formal and non-formal means;
2. Education for promotion of scientific and technological competence and creativity;
3. Education and work;
4. Education and rural development;
5. Education and urban development;
6. Educational technology with stress on mass media and low-cost instructional materials;
7. Professional support services and training of educational personnel;
8. Co-operative studies, reflections and research related to educational development and future orientations.