Teachers as lifelong learners:

Case Studies of Innovative In-Service Teacher Training Programmes in the E-9 Countries

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This is a joint UNESCO-UNDP publication.

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FOREWORD

In a major effort to provide their citizens with basic education as a fundamental human right, and as a means of slowing population growth and stimulating development, the leaders of Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Nigeria and Pakistan gathered in New Delhi on 16 December 1993, at the world's first Education For All Summit. By officially signing the Delhi Declaration, the Heads of State or Government committed their countries to universalizing primary education and significantly reducing illiteracy.

One of the priorities for action emphasized in the Delhi Declaration concerns the improvement of the quality and relevance of basic education, attributing a special role to the teacher as the key to improving effective classroom teaching and learning. In Delhi, leading education decision-makers expressed their growing concern over the fact that internal efficiency and the effectiveness of primary school education has become quite low, basically because of insufficient attention given to the teaching profession. Teacher training programmes tend to be largely academic and do not adequately meet the training needs of teachers. In addition, once teachers are trained, hardly any worthwhile follow-up programmes are undertaken to update knowledge and skills. All these factors demoralize teachers and discourage their professional commitment. A major challenge thus facing educators in the E-9 countries is to improve the quality of teacher training so as to raise the achievement level of primary students.

UNDP and UNESCO, as sponsors of the E-9 Initiative, agreed on an action-research agenda, the first step of which was to identify and analyse the experience of "best-case" practice in the E-9 countries. The Terms of Reference (see Annex I) helped the experts in the nine countries to identify promising programmes and discuss the results of their findings in two successive meetings, together with an international consultant, Dr Salazar-Clemena. This publication, as the final product of this endeavour, attempts to summarize the best programmes currently implemented in the E-9 countries and to provide guidelines and directions for policy formulation for in-service teacher training programmes. The participants in this project, the nine national experts, the international consultant Dr Salazar-Clemena and Prof. Rajput (Director of the Indian NCTE) as the host of the concluding seminar in New Delhi, must be warmly thanked for their deep commitment and valuable contributions. In line with major recommendations of the E-9 Summit in Delhi, this project and the agreed guidelines make a strong plea for extending in-service teacher training programmes, certainly the most promising strategy to enhance the quality of learning and the level of learning achievement. In fact, all contributors to this project stress the urgency of such programmes and it should be hoped that their call, as expressed in the following pages, will be heard by those in charge of basic education.

Wolfgang Vollmann
Co-ordinator of the E-9 Initiative
UNESCO

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Writing about teacher education in the nine most populous countries in the world has truly been a significant learning experience for me. I am glad that, at least for a while, I became part of the E-9 family. I trust that my fellow teachers and the students in these countries will be enriched by the outcomes of this project.

Dr. Rose-Marie Salazar-Clemeña

1

LIFELONG EDUCATION FOR TEACHERS

This is the first time I've felt that the government is calling on me to be a good teacher, to do my own job well. All these years, I've been conscripted into working for family planning, or the census, or election duties; so much so that we teachers often feel we are available for all kinds of tasks because we are not really usefully occupied. No one ever said that what I am employed to do is so valuable that I should feel that if I did nothing but teach children–and did that well–I would have served the nation...

A teacher from Orissa

Teaching children–and doing it well–is indeed the best service teachers can give to their country. Teaching teachers–and doing it well–is the concern of teacher educators, supervisors, and educational decision-makers in the nation.

The crucial role of teachers in the attainment of Education For All (EFA) was underscored by the World Conference on EFA (Jomtien, Thailand, 1990). In this regard, the training of teachers was identified in subsequent meetings (New Delhi, 1993; Bali, 1995) as the most important strategy and the biggest challenge in the global struggle to improve the level and quality of student learning.

As EFA seeks to provide lifelong education for all, so must teachers themselves strive to become lifelong learners. It is assumed that quality teacher training leads to quality education in the classroom. If teachers are provided adequate and effective in-service training, then students have better chances of learning more and performing more efficiently.

This is not to say that continuing teacher education is the sole factor influencing teacher performance and, consequently, student achievement. It is, however, a significant variable in the improvement of teaching practices and learning outcomes.

An increasing concern over the quality of teacher education and its effects on student learning led UNESCO and UNDP, with the support of the education officials of the nine high-population countries (E-9), to embark on an inter-regional study on innovative teacher training. With the end in view of further improving education in general and teacher education in particular, "best case" practices of in-service teacher training in the nine countries were selected. These cases were documented and analysed in order to bring to the attention of various stakeholders in education some experiences and methodologies that can be replicated and applied on a wider scale.

This book presents the highlights of the cases chosen from an initial list of three to five promising approaches per country. Each programme is described from an analytical framework based on

Stufflebeam's (1971) Context-Input-Process-Product (CIPP) model. (see Annex II)

Context takes into account the programme rationale (including the conditions that provided the basis for establishing the programme); the environment within which the programme operates; the programme goals, objectives, and underlying philosophy; and relevant government policy statements.

Input describes the human, fiscal, and material resources: the key players and the structural supports; financial resources and budgetary considerations; available facilities, equipment, and instructional materials.

Process documents the what and how of programme implementation: the topics or themes covered; the activities, strategies, modalities, and standard operating procedures; the programme schedule and format.

Product presents the results of the teacher training programme: measurable and nonmeasurable, quantitative and qualitative programme outcomes, based on programme objectives; and evidences of internal and external efficiency. These are explained within the context of procedures used to gather and analyse the evaluation data and other means of arriving at judgements about the programme impact and output. ■

2

BANGLADESH: SUB-CLUSTER TRAINING

Bangladesh has been intensifying efforts to expand and improve primary education since her independence in 1971. The country is also committed to attaining the goals of the 1990 World Conference on Education for All and of the World Summit on Children. In line with these international imperatives, Bangladesh seeks to meet the basic learning needs of all her people by making primary education universal and accessible to children, youth, and adults.

Under the National Plan of Action for EFA, Bangladesh had set a target of 95% gross enrolment and 70% completion to be achieved by the year 2000. As of 1995, 92% enrolment and 60% completion had been reached.

But the numbers do not reflect the equal emphasis given to the quality of education. In view of the teachers' important influence on this, Bangladesh is trying to induct teachers with better academic qualifications and provide them with intensive training for one year. This initial one-year training, however, is not enough to ensure quality teaching in the primary schools. The importance of continuous in-service teacher training is, therefore, greatly felt.

Out of a wide variety of innovative inservice training programmes that have been used in the country, the "sub-cluster training" programme has proven to be the most effective and suitable for Bangladesh.

Programme Overview

Sub-cluster training is a need-based structured training with abundant flexibility. The programme gathers together 15-20 teachers from a sub-cluster (i.e., four to five primary schools located within a two-kilometer distance) for one-day training sessions scheduled every two months. The training, conducted by the Assistant Thana (Area) Education Officers (ATEOs), is based on leaflets that deal with teaching methods/problems identified by teachers. The leaflets touch on the development of pedagogical skills and provide information related to regular duties performed by classroom teachers. The place of training is rotated among the schools within the sub-cluster areas. The system keeps the training focused on the actual school environment.

Context

The programme is an improved version of the cluster-based training first introduced in seven districts in 1983 in Bangladesh on an experimental basis. Cluster training, involving teachers from 15-20 primary schools at a time, sought to enhance the teachers' capability and skills and enable them to use the knowledge gained in improving the quality of classroom instruction.

Because of its perceived fruitfulness, the cluster training programme, consisting of recurring half-day structured sessions, was expanded to cover the whole country in 1986, under the Universal Primary Education (UPE) Project. However, an evaluation study on the effectiveness of this approach subsequently led to a decision that the training be conducted at a sub-cluster level instead, due to some problems and limitations of cluster training.

Objectives

Sub-cluster training aims mainly to:

- ► improve and update teachers' knowledge of techniques appropriate for different teaching-learning situations

► strengthen the teachers' capability to apply the teaching techniques effectively, and in turn raise the achievement status of the children.

These thrusts are guided by the following strategic decisions:

► involve the total national mechanism of management of education in the training of teachers and supervision of schools
► keep the cost of in-service training at a low level
► link school supervision with the in-service training system
► create a system in which neighbouring schools can assemble for training and other activities related to classroom instruction
► delegate the monitoring and evaluation responsibilities to the district.

Input

Trainers

Nearly 2,100 Assistant Thana Education Officers (ATEO) who supervise primary schools conduct the sub-cluster training. There are three to four ATEOs in a thana (sub-district). The National Academy for Primary Education (NAPE), provides them training on school management, supervision, and sub-cluster training.

Materials

Training modules, popularity known as leaflets, are printed materials on specific problems and issues concerning such topics as classroom teaching, school management, and preparation of low-cost teaching aids. These modules are developed by a Steering Committee headed by the Director General of Primary Education. Thus far, 58 leaflets have been prepared.

Other training materials include: chalkboard, push-pin, board, flip-chart, and cards, all provided by UNICEF.

Incentives

The teachers who attend the sub-cluster training are given only some refreshments during training sessions. The government has recently decided, however, to give TK 800 for expenses incurred in the conduct of the training.

Process

A day-long structured training session is organized once every two months. The training activities include: a demonstration lesson given by a teacher of the school where the training takes place; constructive criticism of the demonstration lesson by all the teachers; training based on the leaflets; presentation and discussion of co-curricular activities to be implemented in the participants' schools; and an open discussion session with parents and school managing committee members on problems and emerging concerns.

The ATEOs conduct the training as facilitators. Using participatory methods and a variety of training materials, they try to make the curriculum relevant to child-centred, activity-based teaching-learning situations.

Overall responsibility for the operation of these training programmes lies with the Thana Education Officers (TEOs).

Product

The sub-cluster system answers the need for institutionalized in-service training for primary school teachers. Through this programme, a teacher now gets a total of six days of training in a year.

The involvement of the school managing committee and local community leaders in the open discussion sessions enables the teachers to solve school problems locally in cooperation with them.
The parents' participation, likewise, has led to their taking greater interest in school affairs.

A review of the supervision reports of the District Primary Education Officer (DPEO), the Thana Education Officer (TEO), the NAPE faculty members, and UNICEF representatives shows that after the

introduction of sub-cluster training, classroom performance of teachers and learning achievement of children increased to a good extent. The teachers are now observed to be using teaching aids in the classroom more often than before.

Innovative Features

Some of the major innovative features of the programme are:

- ► use of an existing network (from central to cluster level) to facilitate programme implementation and keep training costs low
- ► use of training modules dealing with teacher-identified topics and problems
- ► development of co-curricular activities based on local needs and resources
- ► involvement of parents and School Managing Committee members
- ► participatory training methods
- ► variety of training materials
- ► stress on the use of teaching aids in the demonstration lesson.

Conclusion

Sub-cluster training has become almost an institutionalized system covering all the aspects of teaching (e.g. subjects, pedagogy, management, and social mobilization). For this reason, Bangladesh is giving more importance to it. One post of deputy director and assistant director, with several education officers under the training branch of the Directorate of Primary Education, are assigned to look after the entire affairs of sub-cluster training in the country. A two-day orientation programme on sub-cluster training has recently been given to all the DPEOs and TEOs so that they can oversee and guide the ATEOs properly in improving the quality of training.

Perceiving the role of primary education in achieving sustainable and economic development, Bangladesh hopes, through this in-service training programme, to make teachers more responsive to the real life needs of the learners. ■

3

BRAZIL: TEACHERS BUILD THEIR PRACTICE

Brazil's "best case" practice of innovative in-service teacher training takes place in Ijuí, located in the southernmost state of Rio Grande do Sul. The municipality has about 76,000 inhabitants, 83% of whom live in urban areas. It is an important regional centre with an agriculturally based economy, a GNP of approximately US $440 million and a per capita income of US $5,760.

The Municipal Board of Education and Culture (hereinafter referred to as SMEC or the Board) is responsible for the education of approximately 5,700 students in 14 urban and 23 rural schools. Since 1983, SMEC has been committed to improving the quality of education. Following the prevailing political ideology at the time, which considered the school as a special locus to promote social change, SMEC invested heavily in in-service teacher development as a means of making this possible.

Ijuí hosts UNIJUÍ, the Northwestern Regional University of the State of Rio Grande do Sul. This university preserves the tradition of high quality public teaching, with its work rooted in local reality. Its goal is to improve the quality of public education.

Programme Overview

In-service teacher development in Ijuí is a partnership between the Municipal Board and UNIJUÍ. The former organizes multiple and systematic actions carefully so that all Board teachers can be involved in continuing education. The latter provides training and support to municipal school teachers, principals, and coordinators.

The partnership offers the teachers various training activities (e.g., periodic meetings and consultations), special courses or seminars, as well as opportunities to carry out their role as agents and authors of their practice (e.g., writing backup texts and materials).

The training programme is developed according to a yearly generating theme, divided into two-month subthemes. These are used to integrate the grade activities and link the different subjects.

Context

The programme is being implemented in a culture characterized by collective participation among individuals and groups and the strong presence of the Catholic Church.

It tries to address problems such as: the rural children's difficulty in reaching school; the existence of too many small one-teacher schools with multigrade classes; the reduced number of rural schools due to migration and lower birth rates; the increasing suburban population.

Goals and Objectives

The programme aims to:

- ► reduce student drop-out rate;
- ► ensure that children from rural areas can get to and attend school;
- ► restore general confidence in the teachers' capacity to offer high quality teaching, so that students will stay longer and be successful at school.

Philosophy of Ijui's Municipal Board of Education

SMEC activities are guided by the following premises:

- ► belief in the teachers' capacity to fashion and develop their school;
- ► respect for diversity of ideas and social participation of groups;
- ► belief in the school's competence and ability to design its own political-pedagogical project;
- ► decentralization of pedagogic decisions and actions.

Government Policies Supportive of the Programme

In order to improve and ensure quality, the SMEC has been taking actions directed at: (a) educators' qualification and professional improvement; (b) the Board's political-pedagogic project; (c) redeeming popular culture; (d) strengthening partnerships with other school systems and segments of society; (e) implementing School Councils (f) Teachers' Career Plan and salary increase; (g) election of school principals; (h) budget allocation for education; and (i) appointment of a Municipal Education Council.

Input

Financial resources for the programme are taken from the budget allotted for education (at least 35% of the town's budget). Control of the budget, however, is the responsibility of the financial body of the municipality.

Involved in the programme are UNIJUÍ professors and personnel from the SMEC administrative and pedagogic sections. The Board has 481 educators, including 27 principals and vice-principals elected for a two-year term, and 19 school coordinators appointed by the principal, who act as staff developers and teacher trainers. Two-thirds of the Board practitioners have a college degree and the rest have a high school diploma.

Process

Course Content

The training covers content areas and learning theories. It also allows teachers to conceive of more dynamic and creative teaching strategies, based on their interactions with the Board and on their daily school practice.

Principals study and discuss pedagogic approaches, participative management, and administrative issues. School coordinators raise questions about the school's role, learning theories, and teachers' pedagogic actions.

Activities

The programme follows a "back-and-forth" process, wherein teachers first discuss their practices, questions, and needs among themselves, then with SMEC and UNIJUÍ consultants, and back again with their peers. This process enables the teachers to design their grade curriculum experimentally, set up goals, define basic concepts, and implement theory-based projects.

All programmes are evaluated every year. The ensuing results allow for adjustments in the following year's programme.

Format

Schools organize their activities around the teacher development courses, as these are part of their weekly working hours. These schedules allow different groups to hold weekly, bimonthly, or monthly meetings at the Board offices or at the school itself, according to the needs of the teachers, principals, and school coordinators.

Product

The programme has succeeded in redeeming the teachers' credibility through their authorship of various educational materials (e.g., textbooks, classroom practice records, teacher guides, and the town school atlas).

It has also resulted in school-community integration, citizen formation, and increased self-esteem of rural workers. Teacher assistance has become part of the routine of the school, the Board, UNIJUÍ, and the town's life. University teachers are now more aware of the needs of the municipal schools.

Records show that the 1994 dropout rate was down to 3% (from 8% in 1987). Retention rate was still significant, at 16%, although down from the 1987 record of almost 20%.

Innovative Features

The novel features of the programme include:

- ► the SMEC-UNIJUÍ partnership
- ► the goal not only of teaching the regular subjects of the first grades, but also of creating and developing citizenship practices among students.
- ► municipal schools becoming objects of research
- ► teacher training as a living example of the political will of two institutions committed to being of service to their community
- ► horizontal and reciprocal relationships, enhancing confidence, respect, tolerance and self-esteem, and innovative pedagogic ideas
- ► autonomy for pedagogic decisions

Conclusion

The success of Ijuí's in-service teacher development stems largely from the consensus of the teachers, SMEC, and UNIJUÍ about the importance of continuing education. Through training, the teachers have acquired more thorough and extensive knowledge, enabling them to enrich and reformulate their practice to make their classes more meaningful. Teaching is thus focused on local needs, helping people develop roots and enhancing development. ■

4

CHINA: CONTINUING EDUCATION IN TEACHER TRAINING SCHOOLS

Teacher training schools in China, strengthened and rebuilt in the early 1980s, have been a major base for the in-service training of primary school teachers. There are at present 2,153 such institutions, with almost one for each county and city district.

From 1980 to 1995, more than two million teachers were trained in these schools. In the first four years, training focused on enabling teachers to master subject matter and develop basic teaching competence. From 1984 to 1990, the training objective was to help unqualified teachers obtain a diploma of secondary normal education.

As a result of the 15-year endeavour, the percentage of unqualified primary school teachers decreased from 53% to 12% of the 5.664 million teaching force in 1995. Given this condition, the training priority for most parts of China has changed from training for qualification (diploma of secondary normal education) to continuing education.

Programme Overview

Continuing education is offered through various programmes to serve the professional needs of all qualified teachers. The programmes include training for the following: new teachers, key teachers, teachers in new teaching posts, and potential key teachers, with emphasis on the first two.

Continuing education of primary school teachers in teacher training institutions is guided by the following documents issued by the State Education Committee (SEDC): "Suggestions on Conducting Continuing Education for Primary School Teachers" (1991), "Suggestions on Strengthening the Training for Key Teachers of Primary Schools" (1993), and "Suggestions on Conducting the Training for New Primary School Teachers on Probation" (1994). Based on these national policies, many provinces and cities have formulated their own policies and regulations to suit regional situations. Both urban and rural models of successful training programs have been developed.

Context

The shift in training emphasis to continuing education for primary school teachers was based on the following factors:

- ► the poor professional performance of teachers who are qualified only in terms of their diplomas
- ► major changes in basic education in China (e.g., from examination-oriented to quality-oriented education; from educating the gifted to educating all children; from purely intellectual education to holistic development; from subject-centred to child-centred teaching; from unified standard requirements to differential aptitude treatment)
- ► educational reforms and curriculum innovations requiring updated teaching competence.

Philosophy and Objectives

The underlying philosophy of in-service teacher training is the idea of lifelong education. Its purposes are: (a) to increase the teachers' professional morality and teaching capacity; (b) to enable all teachers to develop professional qualities

based on their own current levels; and (c) to foster key teachers and specialists in primary education.

Government Policies

The legal basis of the SEDC policies is the "Teachers' Law of People's Republic of China." This law stipulates that participating in further learning and training is a teacher's right and duty. It also states that educational bureaus at all levels of the Chinese government are responsible for laying out long-term training plans. It designates teacher training schools as the implementing institutions for the task of teacher training.

Input

The leaders of the teacher training schools have overall responsibility for the training process: training design, activity planning, curriculum development, teaching, and evaluation. Trainers are both from within and outside the training institutions. Full-time trainers are teachers from the teacher training schools. Part-time trainers, who constitute the larger bulk of trainers, are usually taken from the staff of the teaching-research section of county education bureaus, outstanding primary school teachers, specialists from educational technology centres and educational research institutes, and university professors in primary education.

In-service teacher training is regarded as a local education undertaking. Expenses for continuing education are therefore taken from local education funds. In addition, a certain percentage of extra funds for teacher education allocated by the central government may be used for continuing education. The financial situation differs, however, from place to place.

As a major base of in-service training for primary school teachers, teacher training schools are equipped with: a teaching building, library, laboratory, teaching equipment, dormitories, and dining rooms. Where physical and financial resources are inadequate, some provinces resort to integrating and sharing available resources from several units (e.g., teaching-research section, educational technology centre, teacher training school).

The training materials developed by experts or full-time teachers reveal regional diversity and creative innovations.

Process

The content prescribed by the SEDC covers the following general aspects: professional ethics and political education; educational theories, curriculum and pedagogy, educational practice and basic teaching skills; new knowledge and technology; vocational knowledge and skills useful for community development and indigenous education. In practice, the content is very flexible and varies for the different types of trainees (i.e., new teachers, key teachers or potential teachers).

Training activities take place both within and outside of teacher training schools. Various methods emphasize the combination of theory with practice, and learning by doing. In school-based training, key teachers and senior staff of primary schools act as peer coaches and tutors. Trainers from teacher training school supervise all primary school activities.

Different formats are adopted for the learning activities: class teaching in teacher training schools, large group instruction in the town school classroom, small group study within the village school, self-study, and correspondence learning. Some provinces have introduced indigenous practices such as organizing teaching demonstration teams composed of trainees who excel during training and providing advanced follow-up training for young, outstanding, potential trainers.

The duration of the training programmes varies, from half a day to three months. Credit system is used for the accumulation of training hours and completion of learning content.

Product

Assessment of trainees' performance emphasizes the theory-practice combination. Pilot programmes in many training schools in China have shown successful results, as reported in national journals and meetings. Results include demonstration of effective teaching skills and increased professional awareness and capacity. Primary school principals have expressed satisfaction with their teachers' progress and achievements in teaching after the training. Moreover, the training process itself has also contributed to school quality improvement and teaching reforms. There is likewise a lower teacher turnover rate. Through continuing education, "local born and local grow up" teachers are able to become "permanent" teachers and key teachers, serving as a major force to improve basic education in rural and mountain areas.

Innovative Features

Continuing education in teacher training schools in China has six innovative features: (a) a training-for-all-teachers orientation; (b) the use of part-time trainers from local communities; (c) short-term and part-time training programmes; (d) adaptation to local conditions to meet the variety of training needs (e) integration of training, teaching research and educational reforms into one process; and (f) delivery of training down to township schools in rural areas.

Conclusion

Teacher training schools have paid much attention to rural areas, where most primary school teachers are working. By reaching out to the grassroots units, the teacher training schools have therefore provided training where it is most needed and where the resources are most inadequate.

Two major forces account for the success of the continuing education programmes offered by teacher training schools: the importance attached by the educational authorities at each level in China to this mission of teacher training schools; the validity of the training content and flexibility of training arrangements. ■

5

EGYPT: UPGRADING ELEMENTARY SCHOOL TEACHERS TO UNIVERSITY LEVEL

In Egypt, as in any other country, individuals are seen as the most important resources for achieving higher rates of social and economic development. With the emergence of the Egyptian constructive revolution in 1952, the government regarded education as the foundation for rapid economic growth and social change. It also looked at education as a major objective of the creation of an enlightened and democratic society. Consistent with these outlooks, the government adopted a national policy of free education at all educational levels and equal educational opportunity for everyone in society.

In order to realize these theoretical ideas, the Egyptian government reorganized the public educational system, classifying it into eight years of compulsory basic education (five-year elementary stage and three-year preparatory stage) and three years of secondary stage. It also increased state expenditure on education and increased the number of schools and students in the different educational stages.

As a result of the rapid increase in the number of schools and students at the pre-university level, there has been a persistent need for a large number of academically and professionally qualified teachers. Because of an insufficient supply of such teachers, however, the Ministry of Education has been forced to hire a large number of unqualified teachers to cater to the needs of all educational stages.
In spite of their importance as the cornerstone of the educational process, elementary stage teachers have long been neglected in terms of their professional, academic and socio-economic status. The Egyptian government has therefore developed educational policies during the last three decades in order to overcome their problems. One solution has been the organization of in-service training programmes in order to improve the teachers' academic and professional level.

Programme Overview

This programme was developed in 1983-84 by the Ministry of Education, in coordination with the Faculty of Education of Ain Shams University and the National Center of Educational Research and Development. Since then, other faculties of education have participated in it.

The programme makes a number of centres, primarily in Cairo, available for trainees on a part-time basis. Graduates of this programme are awarded a B.A. or B. Sc. degree in education and an academic specialization.

Context

Up to 1983, the majority of the Egyptian elementary school teachers (numbering about 15,000) were not university graduates. In response to educational reform strategies and the need to

help elementary school teachers who only had diplomas in elementary stage training, the Ministry of Education decided to upgrade their professional and academic status.

In order to legitimize this programme, the Supreme Council of Universities issued two decrees in 1983: one granting approval to the programme, the other awarding a bachelor's degree in education to its graduates.

The programme takes the form of in-service training in order to solve many problems such as the shortage of elementary school teachers, transportation, and overcrowding in the faculties of education.

It was envisioned that all elementary school teachers throughout the country would have received their degrees within ten years from the programme's inception.

Objectives

The in-service training programme aims to: (a) improve teachers' abilities and skills in teaching, managing, and participating effectively in classroom and school activities; (b) develop teachers' academic and professional competencies; and (c) promote teachers' capacities to be more active participants in the development of their society, the environment, the educational system, and the teaching profession.

Input

Applicants for this programme should be less than 45 years old, holders of diplomas of elementary stage teacher training (five years after preparatory certificate), and should have been working as elementary school teachers for at least two years.

Training sites are equipped with instructional media, library, laboratory, and workshops. Each centre is inspected by a university professor who is in charge of management and can offer advice and help in solving problems. Committees handle the organization and supervision of the programme.

The Ministry of Education is fully responsible for the financial support of this programme. In addition, applicants have to pay tuition fees ranging from EL 50 to 70 per academic year.

Process

The programme falls into four levels that correspond to four academic years. Each level consists of three semesters; winter, spring and summer, with the latter spent for practical studies.

The study plan contains two sets of courses. The first set is professional, which includes courses in education, psychology, and teaching methods. These courses are obligatory for all teacher trainees and aim at improving their professional knowledge and practice. The second set of courses is related to academic knowledge. It is composed of two academic specializations: (a) Arabic language, religious education, and social studies or (b) mathematics and science. Applicants select their academic specialization at the beginning of the second level.

The study plan of this programme combines the credit-hour and traditional systems. Many courses from different areas of study are offered. Most of these are required, and some are elective. The total number of contact hours needed for graduation is about 200.

Although this programme depends primarily on self-learning and distance education, instruction and consultation through radio and TV are also available. In addition, there are weekly discussion meetings with faculty staff members at the centres near their workplace. These meetings take place in the evening as well as during the weekends.

Since 1994, however, some changes have been instituted in the programme. The TV and radio programmes of instruction were discontinued for technical reasons. Meetings were transferred from the centres to the faculties of education, to cut down costs and keep participants in touch with the faculty. Study sessions were distributed over two days, Mondays and Fridays.

The examination and monitoring system was centralized up to 1991-92. In the current decentralized scheme, each Faculty of Education is responsible for the examination of its participants at the end of each semester.

Product

The programme has resulted in the upgrading of the professional level of participants through their attainment of a university degree. Teachers are observed to have become more active in the profession, and to have benefited from their exposure to new trends.

The percentage of graduates to participants in the first level has not been very encouraging, however. From 20.4% in 1986-87, the percentage increased to 27.5% in 1989-90. The percentage dropped to a low of 7.6% in 1991-92, but went up again to 34.5% in 1993-94. These figures reflect high failure and dropout rates.

Innovative Features

The major innovation of this programme is the linkage between the Ministry of Education and faculties of education for the in-service training of teachers. Other features introduced in the early stages of implementation of the programme were the self-learning and distance education mode, supplemented by weekly discussion meetings with faculty staff members at centres close to the participants' workplace and residence.

Conclusion

The programme of upgrading the elementary school teachers to university level has shown success in certain aspects of the educational process. There is a need, however, to review some of its components in order to find solutions to problems raised by its participants with respect to regulations, curricula, textbooks, and the assessment system. ■

6

INDIA:
CERTIFICATE IN GUIDANCE: DISTANCE MODE MULTIMEDIA PROGRAMME

Primary education in India has come of age. Massive and commendable efforts made by the central and state governments have resulted in tremendous gains in enrolment of primary school students. The enrolment at the primary level, which was only 19.2 million in 1950-51, went up to 109 million in 1995 (Govt. of India, MHRD, Department of Education, 1996, p. 30). During the same period, the enrolment at the upper primary level went up from 3.1 million to 40.2 million.

These encouraging enrolment figures pale in comparison to the dropout rate. Nearly 40% of students get pushed out of the educational system by the time they reach Class VI. This mixed picture forces a rethinking about what ails elementary education.

One possible reason for the non-attainment of universal elementary education lies in the parents' and teachers' failure to understand the needs and interests of the primary school child. Without basic knowledge about child development, parents and teachers may inadvertently be creating inhibitive and restrictive environments that smother the child's growth. As a consequence of this, children develop negative attitudes toward schooling and eventually drop out. It is here where the role of guidance comes in.

In this regard, the National Council of Educational Research and Training (NCERT) has been offering an Advanced Diploma Course in guidance and counselling at the post-graduate level. The programme, which has been going on for about two decades, has so far touched only the tip of the problem. Guidance in primary schools still remains largely unattended.

Programme Overview

The Certificate in Guidance is an attempt to orient teachers and parents in matters relating to child guidance, with the end in view of bringing about the child's comprehensive and holistic development. The programme focuses on the identification of needs and problems related to physical, social, and emotional issues of the children.

Context

The CIG is based on the philosophy of institutional collaboration. It synergizes the strengths of two institutions: the NCERT, which develops curriculum frameworks for all levels of school education, and the Indira Gandhi Open University (IGNOU), which is dedicated to open distance education.

The programme was conceived in the context of the 1990 Jomtien conference emphasis on the importance of primary education and children's basic learning needs. It was hoped that if teachers and parents properly understood the primary school child, they would undertake actions to promote the children's retention in schools and facilitate their academic achievement. This resulted into a collaborative project between NCERT and IGNOU,

with NCERT designing the curriculum and IGNOU offering the course through its Regional and Study Centres.

Objectives

The course is directed toward helping parents and teachers:

1. understand the elementary school child
2. identify and understand problems relating to learning and the socio-emotional development of elementary school children
3. understand concepts and processes related to guiding school children at the elementary level, and
4. take preventive measures to overcome learning and socio-emotional problems of elementary school children.

Input

The CIG course is open to: regular teachers, individuals who have passed the senior secondary course or matriculation examination, parents, and persons from non-government organizations. Candidates must be at least 21 years old. Priority is given to primary and elementary school teachers.

The 1994 statistics show that nearly 60% of the 801 participants were in the age range of 21-35 years. Females constituted 68%; the employed students were 51.7%; and 74% came from urban areas.

The programme is covered by a Memorandum of Understanding between NCERT and IGNOU, and is therefore assured of financial support from these institutions, both fully financed by the Central Government. Students pay a fee of Rs. 300/-, which is valid up to two years from the date of admission.

The study and support materials, jointly developed by NCERT and IGNOU, include audio-video programmes and self-instructional printed modules. The participants are also given a Student Handbook that contains all necessary information about the course and the support services available.

Process

Information about the programme, in Hindi and English, is advertised in newspapers and on radio and television. It is likewise available in the IGNOU Head Office (New Delhi) as well as in Regional Centres, each of which has Study Centres under it.

The programme offers four courses: Understanding the Elementary School Child, Facilitating Growth and Development, Guiding Children's Learning, and Guiding the Socio-emotional Development of Children.

The instruction design uses a multimedia approach to teaching, with the following components: (a) self-learning materials, (b) face-to-face contact sessions, (c) academic counselling in regional centres, (d) audio-video programmes, and (e) in-built exercise and assignments.

Soon after enrolment, the candidate receives instructional materials and a time schedule for counselling sessions. Academic counselling is provided on Saturdays and Sundays in the Study Centres. Counsellors, who are child guidance experts, try to answer students' queries and tackle their problems and difficulties. When the learning materials are given to students, they are advised to read learning materials very closely and critically. They are also told to do all assignments (two per course) given in the printed booklets. Successful completion of all the eight assignments within the stipulated time is required of students who sit for final examination for all the four courses at one time.

Although the course is designed for six months, students have the option to stagger it over two years. They are also at liberty to appear in all the examinations conducted by the University during the year, provided they have met the minimum time prescribed

The students are regularly evaluated through exercises within each unit, periodic assignment, and term-end examination.

Product

Because of the flexibility in the CIG evaluation system, where students have four chances to appear for examinations over a period of two years, it becomes difficult to calculate pass percentage. The records show, however, that 1,081 students have completed the course.

The programme has succeeded in making parents and teachers aware of the need to accept children as they are. It has gradually and subtly made the point that holistic growth is more important than mere cognitive growth.

The CIG has likewise tacitly given an important message: that at the primary level, the development of the child's cognitive, affective, and psycho-motor domains is a joint responsibility of parents and teachers.

Data are not yet available on the programme's effects on dropout rates and student retention in the system. In the long run, it is expected that parents' and teachers' proper understanding of the primary school child will certainly result in better student retention and performance.

Innovative Features

The novelty of this programme lies in its being a collaborative one, offered through distance mode. The strengths and resources of NCERT and IGNOU are brought together to provide the needed facilities, student support services, and management system.

Its focus on holistic child development and on the partnership of parents and teachers in this task are also welcome innovations.

Conclusion

The programme shows potential for future expansion. At present, it is limited to the primary level and delivered by a central agency. It may be extended so that state level agencies (i.e., the State Councils of Educational Research and Training (SCERTs) may collaborate with State Open Universities. In case this strategy is adopted, the programme could have a much-needed, wider geographical coverage. ■

7

INDONESIA: RADIO IN-SERVICE TRAINING FOR PRIMARY SCHOOL TEACHERS

The task of teacher upgrading and in-service training in Indonesia is a formidable one. There are altogether 1.770 million school teachers, 1.2 million of whom are teaching in the primary schools. Approximately one million of these primary school teachers have to be upgraded, in view of a government policy, issued in 1989, which requires teachers at this level to possess at least a Diploma II degree. The new curriculum of 1994 further demands retraining and/or refresher courses of qualified teachers, to orient them to the new approach and structure as well as to the new textbooks and teaching materials.

There are three basic types of in-service teacher training offered by the Directorate General for Primary and Secondary Education: refresher, upgrading, and career training. These programmes are implemented using various mechanisms. No single in-service training modality, however, can claim to have solved all of the teachers' lack of qualification and professionalism. Nevertheless, considering the massive teacher training requirements, it appears that the face-to-face conventional approach alone is not enough to fill the need. On the other hand, distance education, using printed learning materials or modules, has reached less than 200,000 teachers within six years of its initiation. With these two training modalities, it will take 25 years to complete the upgrading programme. Using radio broadcasting for teachers' in-service training seems to show brighter prospects.

Programme Overview

The Radio In-service Training (Diklat SRP) is an outgrowth of a pilot project, initiated in 1976, on the use of radio broadcasting for teachers' upgrading. It is a programme for underqualified primary school teachers that will enable them to collect in three years a total of 80 credit points required for teaching at the primary level.

The programme is managed by the Centre of Communication Technology for Education and Culture (Pustekkom), under the Ministry of Education and Culture. Pustekkom being a non-degree granting institution, it collaborates with the Indonesian Open Learning University (Universitas Terbuka; UT). The broadcast curriculum is therefore currently based on UT's DII Equivalence Programme by Distance Learning.

Context

Diklat SRP addresses the need to improve the primary school teachers' professional competence in both teaching method and content. It is meant particularly for those residing in rural and remote places.

The basic programme philosophy is that any improvement of the quality of education should begin with the most critical point, the teachers. It is also assumed that mobilizing available resources can eliminate disparity in educational quality

caused by socio-economic and geographical conditions.

The main objectives of Diklat SRP are: (a) improving the teachers' professional competence in both teaching methodology and subject mastery, and (b) providing the disadvantaged teachers with learning opportunities to help them attain the teaching standard qualification.

Input

Diklat SRP is managed jointly at the central and provincial levels by teams consisting of designated staff from relevant units of the Pustekkom, the Directorate of Primary Education, and the Directorate of Teacher Education. In addition, linkages are established at the provincial level with the national radio networks and the local constituent body of the Ministry of Home Affairs under the provincial Governor.

The instructional team that develops the broadcast programmes consists of curriculum or subject specialists, media specialists, evaluation experts, experienced teachers, scriptwriters, studio teachers or cast, radio producers, and liaison officers.

The programme is financed mainly by the central government, through routine and development budgets. The routine fund is for staff salary, maintenance of building and equipment, and daily operations. The development budget is for the design and production of print and non-print instructional materials or programmes, as well as for supervision and evaluation. The local governments contribute by providing wireless sets to the learning groups.

Teachers participating in the Diklat SRP are required to be active teachers and civil servants (or prospective ones). They should not have been registered as students of the regular, face-to-face DII programme.

Instructional materials available for the teachers are mainly in the form of the broadcast lessons and the printed corollary learning materials. Additional visual materials (e.g., video recordings and sound-slides) are also provided at the local implementation units.

Process

In order to invite teachers to participate in the programme, Pustekkom produces and disseminates promotional materials in printed form and radio spots.

Teachers willing to participate in the programme have to form learning groups, one in each school. Group learning activities include listening to the radio programmes (aired 20 minutes twice a day), reading the supplementary printed materials, and discussing the relevant topics. Reports on these activities are sent once a month to the local implementing unit.

Radio scripts and their printed supplementary materials are based on a predetermined Basic Pattern of Teaching and Learning. The supplementary materials contain the lesson's abstract and activity guidelines, including the broadcast timetable. These materials are sent to the learning groups prior to the broadcast of the lessons.

The broadcast lessons are organized into six packages, each one offered for a semester. All problems encountered during individual and group learning are dealt with by visiting supervisors and/or the local implementing unit of Pustekkom in the provinces. Radio feedback in response to these problems is prepared for subsequent local broadcast.

Teachers who are active members of a learning group may participate in the examinations upon the recommendation of their school principal. Performance assessment is prepared by content specialists, with the assistance of test construction experts and technical staff. The actual evaluation is done by and under the supervision of the respective school principals.

Product

The number of teachers participating in the project fluctuates from year to year. Since its initiation in 1992, however, the project has awarded certificates of completion to 345,917 out of a total of 489,572 teachers. This reflects a success rate of approximately 70%.

No data are available to show the effects of the programme on the teachers' performance or the students' learning. A short survey indicates, however, that teachers are feeling good about the availability of the programme, because it serves as a morale booster.

Based on simple quantitative measures (e.g., the number of lessons produced and broadcast, the number of corollary learning materials prepared and distributed, and the frequency of learning assessment), the programme implementors claim the cost effectiveness of Diklat SRP. External efficiency is determined comparatively. The programme's operational budget for 1996-97 was roughly $350,000 for 117,432 active learners amounting to less than $3 per teacher. This figure is much lower than the budgets allocated for two other programmes with more or less the same objectives.

Innovative Features

The most significant innovative feature of this programme is its use of radio broadcasting as an instructional medium. The process of innovation includes the management of activities, personnel, resources, and learning.

Another novel characteristic of the programme is its philosophical strategy of mobilization of resources. Cooperation of related agencies is solicited, enhanced, and enforced; systematic problem-solving method is applied; and related factors such as finances, time, and personnel are considered.

Conclusion

The success of this in-service training programme can be attributed to the strong political will of the Indonesian government to improve the quality of teachers, the leadership within and outside the programme, and the teachers' acceptance of and confidence in the program

Broadcasting and telecommunications technology show tremendous potential for educational application. The prospect of applying this programme on a wider scale for teacher upgrading is therefore very bright. ■

8

MEXICO: ACTION RESEARCH ON CONCEPT AND ATTITUDE FORMATION IN PRESCHOOL AND PRIMARY EDUCATION

The problems of education in Mexico have led to several reforms and constant moves to update and modernize teaching methods. The adoption of innovations in education has not been very successful, however. One basic reason for this is the inadequacy of the methods and contents adopted. The other is the lack of professors who are proficient in the new methods. In Mexico, this is an important factor to consider, given the natural tendency to adopt new methods with few supporting tools. It has been observed, in fact, that several teachers who think they are following a new method are in reality constrained by their own training, traditions, social customs, and ideologies that are resistant to change.

Frequently, the efforts to improve the quality of education focus on certificate courses for teachers. Some research results show, however, that the most important factors that affect improvement are attitude, work, and concrete methodologies applied in the classroom. These are factors not linked with the teachers' academic qualifications.

For these reasons, the education authorities of the state of Veracruz decided to develop the programme "Action Research on Concept and Attitude Formation in Preschool and Primary Education" (IACAE).

Programme Overview

IACAE is offered to preschool and primary education teachers. The programme, introduced in 1987, is so organized as to elicit the participation and support of the community in a given zone: professors, supervisors, teachers, children, and parents.

Attitude change is achieved through the teachers' involvement in action-research, and their exposure to participatory teaching techniques.

Context

The project arose as a response to the following needs: restoring the teachers' esteem for their own profession; improving the quality of education; decreasing the school dropout rates in the state of Veracruz; linking the school to the community; training teachers as researchers; and improving the terminal efficiency of the primary school students.

It is guided by the philosophy that teachers ought to be actors and authors of their training, which is built into their practice as a fruit of self-reflection and evaluation. Through this programme, the teachers can regain their importance in the community as a major part in the cultural, political, and social life of their students.

IACAE aims primarily to develop the teachers' competencies in (a) promoting a change of attitude in the different instances in the teaching-learning process; (b) maximizing the use of theory-based pedagogic and dialectical tools in primary and preschool education; and (c) linking the school with the community and with the different participating actors in education. The end goals are to reduce the school dropout rate, increase the terminal efficiency and quality of education, and foster a better appreciation for the teaching practice by the teachers themselves.

In support of the programme, the government has issued policies to establish teacher training and updating courses as well as parents' schools in pilot zones located in urban, suburban, indigenous, and rural areas. Due respect is given to the customs, traditions, and popular culture of the assisted population.

Input

Strategic planning for the institutional setup involves the General Director of Popular Education, a project coordinator, a project technical and implementing team, and assistants. In planning for project development and implementation, this group is joined by the zone colleges, in cooperation with supervisors, teachers, parents, and children. Teachers' participation in the programme is on a voluntary basis.

Financial resources come from state funds for primary education. The budget is based on the Annual Operations Programme that determines the coverage, goals, strategies, and schedule of activities, as well as personnel, physical, and other requirements.

Instructional materials include: teaching activities support guide, schoolwork guide, audiovisual aids, organization manual, and self-instructional texts for teachers. Some of these materials are prepared by the teachers themselves and by the General Director of Popular Education.

Process

School zones are selected for the project on the basis of indicators such as dropouts, absenteeism, and terminal efficiency, taken in the context of geographic, socio-economic, and cultural factors.

The programme content covers, among others: action research methodology; teaching methodology for different subjects; participatory teaching techniques; designing and producing low-cost didactic material; popular education; school-community linking strategies.

The five-step process involves: (a) contracts with community authorities, (b) participatory diagnosis with the community, (c) planning of activities, (d) implementation, and (e) evaluation.

The strategies employed to carry out the objectives are:

1. Formation and Updating Programmes: Courses include workshops, conferences and seminars, group learning and research activities.
2. Technical meetings: The Professors' Colleges, in work teams, study the potentials, limitations and strengths of the teachers in each zone and propose courses of action to support their work partners.
3. Exchange of Experiences: This is done through seminars and symposia, where participants share their respective zone experiences.
4. Design and preparation of didactic materials: These materials (e.g., bulletins, books) are derived from the courses and workshops taken by the teachers and from the General Director of Popular Education. These are usually produced with disposable articles like boxes, sticks, and other materials contributed by parents.

During the meetings, participative research methods are used. These include group discussions, public fora, research teams' formation, and community organization seminars.

Evaluation is part of the process from the very start. This allows the early detection of problems and needs. Summative and formative evaluation, as well as descriptive and predictive studies are made on the basis of the participants' field diaries, assistants' monthly report, and the zone's data compilation. In order to maintain objectivity, the teachers' self-evaluation is supplemented by external evaluation.

Research analysis and reflection meetings are arranged regularly. Once a year, a general meeting is held among all the project's participants and a general zone report is prepared.

Product

As a result of the programme, the value of the teaching practice has been reaffirmed. The teachers, trained to be action researchers, are now committed to be change agents. There is also a greater sensitivity to the link between the preschool and primary levels. Attitude change is seen concerning the teaching-learning process and the school-community relationship.

The students' participation as active elements in the teaching-learning process has developed their creativity and critical thinking skills, resulting in improved school work. Extra-classroom friendships have been formed.

What is most visible is the programme impact on the community. It has strengthened the school-community linkage and effected adult literacy.

Innovative Features

The model offers several innovations in in-service teacher training: the use of action research methods in the formal educational system; the involvement of school authorities, parents, teachers, and children; the stress on attitude as a change agent; and the establishment of a Parents' School and a Professors' College.

Conclusion

This unique approach to teacher formation is valued by the teachers, parents, children, and the community because it allows them to be actors and authors of their own development. It enhances school-community linkages and promotes significant learning built on concepts derived from daily life experiences. The coordination of the educational experiences of preschool and primary students facilitates the children's progress to the next level. Its replicability lies in its adaptability to the local context. ■

9

NIGERIA: PEER IN-SERVICE APPROACH

The declaration of Universal Primary Education in 1976 led to a phenomenal increase in the school population, especially at the primary level, in Nigeria. As of 1993, there were 13.7 million primary school students and about 400,000 teachers. These figures gave rise to the urgent call to provide teachers with relevant training to improve their job efficiency (Situation and Policy Analysis of Basic Education in Nigeria [SAPA] Report, 1993).

In spite of government efforts, however, there remains an acute shortage of qualified teachers. If Nigeria is to tackle squarely the problems of education at all levels, then the issue of teachers must be addressed. The solution should be found in providing adequate training and retraining for teachers as long as they are in the education industry. Such in-service training programmes should take cognizance of the serious economic difficulties that Nigeria is currently going through, and must be cost-effective.

Most in-service teacher training programmes utilize experts from higher (tertiary) institutions or from the Ministry of Education, who normally deliver lectures and teach skills. It must be recognized, however, that in an educational environment, such as a local government area, there are very good teachers in some of the schools. And yet, not too far from a school with a crop of good teachers are clusters of other schools with teachers who need to improve their teaching skills. An arrangement that could pool these resources together holds promise not only as an economical but also as an innovative and effective scheme.

Programme Overview

The Peer In-Service Approach (PISA) is a "self-help" in-service approach that drastically reduces the cost of financing training programmes for teachers within local government areas. It recognizes the skills of good teachers in any locality with a cluster of schools. The expertise of these good teachers is utilized to update other teachers in neighbouring schools in the same area. The good teachers are therefore regarded as "itinerant in-service teachers." Programmes are arranged as the need arises.

Context

The Peer In-Service Approach is based on the belief that primary education is the basis of the formal and non-formal systems. Hence there is a need to lay a solid foundation in such a way that all the children would be taught the basic skills of reading and numeracy. PISA also takes into consideration the declared intentions of government in its National Policy on Education.

Thus, the stakeholders in PISA are: relevant arms of government, classroom teachers at the primary education level, and primary school pupils. As is always in any educational reform, the beneficiaries are the society at large and learners attaining high learning achievement.

PISA makes two assumptions:

1. There are "good" schools in any given local government area.
2. "Experts" can be identified in the schools in any local government area.

In considering in-service teacher training at the primary education level, there is a need for the "expert" to be an "insider" rather than an "outsider." The expert must not only know about the educational environment; there must be evidence of actually experiencing the kind of education being offered at the primary level. PISA experts, because of their familiarity with the local cultural and socio-economic dimensions, can more easily "sell" the training programme to their peers and thus make it more acceptable.

The expected outcomes of PISA in a given Local Government Education Authority (LGEA) are as follows:

1. All teachers would have been exposed to at least three in-service workshops in any given year.
2. At least 75% of all teachers would have been exposed to modern/current approaches to teaching their subjects in the school.
3. Teachers in the LGEA would exhibit a high level of inter-school cooperation.
4. Teachers who attend PISA would be in possession of in-service training materials relevant to the individual needs.
5. There would be a significant reduction in the budget aspects dealing with in-service training of teachers.
6. Pupils' learning achievement will significantly improve.
7. In-service exposure will provide additional qualification to upgrade the teachers' level.

Input

Programme participants consist of teachers from the schools within a vicinity. "Good" schools are selected on the basis of: ownership (private or Federal or special state science schools); quality/quantity of teachers; quality of learning environment. "Experts" chosen from these schools and who constitute the in-service tutors meet the following criteria: academic qualification (not less than NCE); professional qualification (exposure to early childhood education); teaching experience (not less than five years); familiarity with local government area (stay in LGA not less than three years); administrative experience (position not less than senior teacher); rating from school principal (high). They are possible role models for the other teachers.

Funding requirements are minimal. Reasonable incentives may be provided by the school system to cover transportation and materials.

Process

On the basis of needs assessment and situational analyses, "good" schools in a given Local Government Education Authority (LGEA) are identified. From these schools, "experts" in some subject areas are selected. Sensitization/awareness training in the good schools are then conducted. With training materials produced from workshops, the PISA expert teachers first provide in-service training to the teachers in their respective schools and then extend that service to identified schools in the vicinity. These take the form of short-term or long-term focused training, which are non-residential. Formative and summative evaluation activities are carried out, including assessment of pupils and the educational system.

Product

PISA has been adopted in a science programme across Nigeria. Science and technology being considered crucial in the march towards national development, it was decided that children should be introduced to these disciplines in an exciting way. Project ELSSA [Early Learning Science Series for Africa] was therefore used as the vehicle to propagate PISA. ELSSA as a national project has been introduced through sensitization workshops for teachers in three regions of the country [West–Ibadan; North–Kaduna; East–Enugu].

The effectiveness of PISA is seen in the general improvement of the teachers' educational level and in the achievement of learners who interact with PISA-trained teachers. The latter is measured

through the pupils' performance in the ongoing national Monitoring of Learning Achievement (MLA).

Innovative Features

It is clear that the most novel feature of PISA is its utilization of the expertise of good teachers for the in-service training of other teachers in nearby schools. This approach gives recognition to the good teachers and thus, in a significant way, raises their self-esteem. As peers to the other teachers, the good teachers are easily accepted.

Conclusion

PISA, as an in-service strategy, has three advantages. Firstly, it is a kind of "self-help" project where teachers help other teachers. Secondly, it develops high self-esteem in the teachers who act as role models. Thirdly, it is proving to be a low-cost approach.

PISA has all the potentials of replicability in all the states of the Federation of Nigeria. And of particular interest is the fact that it can be replicated in other countries within the E-9 Initiative.

In conclusion, PISA is innovative; but more importantly, it can enhance teacher performance which, in turn, can improve students' learning achievement. ■

10

PAKISTAN: NEW PRIMARY TEACHERS ORIENTATION COURSE

It has been established that no teacher, once trained, can be considered fully competent throughout his or her career without taking periodic refresher courses. The Commission on National Education of Pakistan reinforced this idea in 1959 by proposing a mechanism for teachers to have in-service training, at least once every five years.

Two types of institutions, formal and non-formal, have been established to cope with the demand for in-service teacher training. Belonging to the formal type are provincially administered in-service teacher training institutions under the titles of (a) In-service Teacher Training Centres, (b) Education Extension Centres, and (c) Directorate of Staff Development. Other provincially administered formal institutions are: government colleges of elementary education, which take on in-service teacher training during the vacation period; and the Primary Teachers Alternate Course of Baluchistan, which provides a three-month summer training programme to untrained teachers who have had 10 years of schooling.

Formal training is likewise given through the federally administered and Asian Development Bank-sponsored teacher training project (1993-98), whose targets are the recently appointed teachers of the newly established schools during the project period. Non-government organizations have also been conducting formal in-service training, through the Teachers Resource Centre in Karachi, and the Project for Rural Primary Teachers of the Ali Institute of Education in Lahore.

Allama Iqbal Open University (AIOU), Islamabad is and has been the only institute providing non-formal in-service teacher training to primary school teachers.

Programme Overview

The New Primary Teachers Orientation Course (PTOC) is an intensive in-service teacher training programme of 18 weeks that is provided by AIOU using a distance education mode. It focuses on improving the teachers' practical skills through the adoption of innovative teaching methods. It is given to trained primary school teachers in the service who have had no previous exposure to the new teaching methodology. It is designed to make up for deficiencies in their preparation.

Context

AIOU started the old PTOC programme in 1976 upon the request of provincial departments of education. From this time until 1988, it provided an 18-week training programme to about 83,000 untrained primary school teachers through its distance education system. Like other pre-service and in-service teacher training courses in the country, however, the old PTOC was characterized by a heavy theory-oriented curriculum and an academic bias in the training.

It was with this historical background that the new PTOC programme was established with the sponsorship of NORAD for the period of 1992

to 1998. The programme aims to provide skills-oriented re-training to working primary school teachers–females and males, junior and senior, from rural and urban areas in all the four provinces of Pakistan.

Input

The programme is adequately equipped with human, material, and physical resources. The human resources consist of the trainees, their tutors and senior tutors (one for every ten tutors). The tutors are drawn from the nearby colleges of elementary education or from various schools of prominence. The senior tutors provide proper guidance to the tutors and monitor the programme. Both groups are properly trained in workshops conducted at the AIOU regional offices (for tutors); and at Islamabad (for senior tutors).

Material resources come in the form of print and non-print media. Printed study materials consist of 18 study units, arranged into six blocks: Expository; Pedagogy; Teaching of Science; Teaching of Mathematics; Language/Humanities; Teaching of Physical Education and Arts and Crafts. The materials are written in the style of self-study distance education, with input from different scholars and primary education experts inside and outside the University.

Electronic media consist of five radio programmes of 15 minutes each, two TV programmes of 30 minutes each, and one 60-minute audio-cassette programme. These are interlinked with the print media according to the basic requirements of the open learning system.

AIOU has a network of 33 Regional Centres and about 500 Study Centres that provide the needed facilities.

Incentives are given to the trainees in the form of transportation allowance for attendance in the tutorials, workshops, and final examination. Medals, certificates, and scholarships are also awarded to those who complete the programme with distinction. PTOC graduates likewise get preferential admission to AIOU's CT and BEd level teacher training programmes.

Process

The following eight teaching competencies are stressed in the programme: introduction of the lesson, presentation, effective questioning, listening, participation, recapitulation, teacher liveliness, and closure. These are developed through the microteaching approach with the use of a video camera.

The trainees are required to attend two workshops, for a total of nine full days, for practical demonstrations, planning and presentation of lessons. Aside from these, nine fortnightly tutorials of one hour each are provided for face-to-face contacts between the trainees and the tutors. Activities in these tutorials are all student-centred. The trainees are given opportunities for video recording, viewing their own performance, and noting improvements in their teaching competencies.

Continuous assessment of student performance is done through four assignments, one every month, each based on four to five study units. Formal examination is conducted at the end of the semester. Evaluation of the different programme components is done upon programme completion. Feedback is also given for research work.

Product

As of 1996, the programme had provided in-service training to more than 30,000 out of the target population of 42,000 primary school teachers. On the average, 62% of these students have completed the programme in all aspects except final examination.

To determine programme effectiveness, five research studies have been conducted. These studies show positive change in the graduates'

attitude and behaviour with respect to the microteaching competencies discussed earlier.

The programme is cost-effective. It offers the 18-week in-service teacher training at the cost of Rs.2300 (US $60) per student.

Byproducts of the programme include the trained human resources: tutors, senior tutors, pretesters, evaluators, monitors, camera operators and technicians, and teacher trainers. The new PTOC has also provided study materials that have become assets for other teacher training programmes in the country.

Innovative Features

The main innovations of the new PTOC are: the use of media (print and electronic); outreach (emphasis on female teachers and rural teachers); developing teaching competencies by practical work; microteaching and the use of video cameras; non-formal and distance education mode; self-study materials with all the qualities of the distance education system; stress on change in teacher behaviour; incentives; strict monitoring system; face-to-face components (i.e., tutorials and workshops) within the non-formal education system; feedback system and programme evaluation for continuous improvement of the study materials.

Conclusion

The new PTOC is able to provide in-service teacher training to the bulk of primary school teachers at a very low cost. With its practical inputs, efficient methodology, innovative strategies, and encouraging results, PTOC stands as a good model for replication in Pakistan and other E-9 countries. ■

11

TRENDS AND THEMES

The in-service teacher training programmes described in the previous chapters reflect successful and innovative practices best suited to their respective contexts and circumstances. The cases are not offered as perfect models, however. Although each programme has its strengths and qualities that merit replication, it also has its weaknesses and aspects that need improvement.

The selected cases are diverse in some ways but alike in other ways. This chapter presents an analysis of these similarities and differences. Comparisons and contrasts are made on the basis of conceptual orientations, strategies, methodologies and modes, and the teacher education models the programmes typify.

Conceptual Orientations

Orientation is defined as "a set of ideas about the goals of teacher preparation and the means for achieving them" (Feiman-Nemser, 1990, p. 220). Through their strategies and activities, the programmes represent varied viewpoints about the teaching-learning process and theories about learning to teach. Some of them, however, illustrate more than one perspective. This is to be expected inasmuch as the conceptual orientations are not mutually exclusive. "By design or default, they can, and indeed do, exist side-by-side in the same program" (Feiman-Nemser, 1990, p. 220).

Academic Orientation

This perspective sees teaching as being primarily concerned with transmitting knowledge and developing understanding. It stresses the role of the teacher as "intellectual leader, scholar, and subject-matter specialist" (Feiman-Nemser, 1990, p. 221).

The academic orientation is reflected in *Brazil's* training courses given by the Municipal Board of Education and Culture (SMEC) of Ijuí in partnership with the local university, UNIJUÍ. These courses seek to renew the teachers' knowledge in content areas and enable them to study theories about the learning process. It is likewise seen in *Egypt's* program to upgrade elementary stage teachers to university level, which includes general and specialization courses. Indonesia's radio in-service training for primary school teachers is another example, given its aim of improving the teachers' mastery of subject matter content.

Practical Orientation

This viewpoint emphasizes "the elements of craft, technique, and artistry that skilful practitioners reveal in their work ... [It] endorses the primacy of experience as a source of knowledge about teaching and a means of learning to teach" (Feiman-Nemser, 1990, p. 222).

The practical orientation is exemplified in the sub-cluster training programme of *Bangladesh,* wherein teachers are exposed to demonstration lessons and modules on specific problems and issues about classroom teaching and school management, and are given opportunities to discuss and share experiences about these. In the case of *Brazil,* teachers work on projects based on a discussion and analysis of practices, doubts and needs with officials of the Municipal Board of Education and university professors. *Mexico's* programme on attitude and concept formation (IACAE) uses action research methodology to help teachers develop teaching competencies. *Nigeria's* Peer In-Service

Approach (PISA), for its part, uses the pragmatic method of tapping the expertise of good teachers in some schools to help improve the teaching skills of teachers in other schools within the vicinity. For the Primary Teacher Orientation Course (PTOC) of *Pakistan,* experienced tutors and senior tutors provide guidance to the teacher trainees.

Technological Orientation

This approach, which concentrates on the knowledge and skills of teaching, aims primarily to develop proficient teachers who are able to demonstrate the application of principles and practices obtained from the formal study of teaching (Feiman-Nemser, 1990). It appears to be common to the selected training programmes in the E-9 countries.

The *Bangladesh* programme, for example, aims to help primary school teachers improve and update techniques appropriate for different teaching-learning situations and to strengthen their capacity to apply teaching techniques effectively. The training courses of the SMEC-UNIJUÍ partnership in *Brazil* likewise seek to provide teachers opportunities to study theories about the learning process and to conceive more dynamic and creative teaching strategies that would help enliven classroom lessons. The content of the in-service teacher training in *China* also includes educational theories, curriculum and pedagogy, educational practice, and basic teaching skills. Similarly, *Egypt's* programme is directed toward improving teacher's abilities and skills to teach, manage, and effectively participate in classroom and school activities. In *India,* participants in the Certificate in Guidance (CIG) programme are enabled to take theory-based preventive measures to overcome learning and socio-emotional problems of elementary school children. The radio in-service programme of *Indonesia* also attempts to upgrade the primary school teachers' instructional competencies. *Mexico's* IACAE aims, among other things, to orient the teacher to technique-practice topics in the teaching-learning process. An expected outcome of *Nigeria's* PISA is that at least 75% of all teachers in a given Local Government Education Authority would have been exposed to modern/current approaches to teaching their subjects in school. And in *Pakistan,* a major component of its PTOC is the development of eight specific teaching competencies through microteaching.

Personal Orientation

This standpoint puts the teacher-learner at the core of the educational process. "Learning to teach is construed as a process of learning to understand, develop, and use oneself effectively" (Feiman-Nemser, 1990, p. 225). Thus, the personal development of the teacher forms a central part of teacher training.

In *Brazil,* the SMEC-UNIJUÍ partnership's goal is to increase the rural teachers' self-esteem and credibility by helping them become agents and authors of their practice. In *China,* the stated purpose of continuing education given by teacher training schools is to improve the teachers' professional ethics and teaching capacity, and enable them to develop professional qualities based on their own current levels. *India's* CIG programme likewise illustrates the personal orientation, with its objective of helping teachers (as well as parents) understand their role in guiding the elementary school children, in light of the growth and development process. *Mexico's* IACAE endeavours to give back to teachers their importance as a principal part of their students' cultural, political, and social life. The activities therefore seek to foster attitude change and enhance self-esteem. *Nigeria's* PISA, on the other hand, in its choice of "itinerant in-service teachers," focuses on the crucial contribution of peers as role models.

Critical/Social Orientation

This outlook, which puts together "a progressive social vision with a radical critique of schooling" prepares the teacher to be "both an educator and a political activist" (Feiman-Nemser, 1990, p. 226).

The programme philosophy of SMEC in Ijuí *(Brazil)* embodies its belief in the school's competence and autonomy to design its own political-pedagogical

projects. The projects thus reflect the uniqueness of the school, its "raison d'être," including the team's beliefs and expectations about the school's role in the community. Similarly, *Egypt's* programme attempts to promote the teachers' capacity to take part in improving their profession and national educational system and to be more active participants in the development of the local environment and society. *Mexico's* IACAE, on the other hand, seeks to sensitize the teachers and the community to the former's role as change agents.

Strategies

Partnerships

The most common strategy used by the training programmes is the forging of partnerships between relevant institutions. In *Brazil,* it is a partnership between a municipal board of education and a local university. In *China,* the State Education Committee (SEDC) taps teacher training schools as the major channel and base for performing the mission of continuing education and for ensuring its quality and effectiveness. Likewise, *in Egypt,* the Ministry of Education cooperates with faculties of education. *India's* National Council of Educational Research and Training (NCERT) works in collaboration with the Indira Gandhi National Open University (IGNOU). Similarly, *Indonesia's* Open Learning University (Universitas Terbuka; UT) works hand in hand with the Centre for Communication Technology for Education and Culture (Pustekkom). In the state of Veracruz in *Mexico,* each zone elicits the participation of a Professors' College to support a school's actions. Finally, *Nigeria's* PISA is characterized by inter-school cooperation within a local government area.

School-Community Linkages

A related strategy is the establishment of linkages between schools and the community. In *Bangladesh,* for instance, parent-teacher association representatives participate in open discussion sessions with the teachers. In *Mexico,* on the other hand, participative investigation methods of the IACAE include community organization seminars. Moreover, the development of the teacher's competency in linking the school with the community and with the different participating actors in education is a clearly stated objective of the training. Parents themselves organize a Parents' School to support learning.

Clustering

The organization of schools into clusters or sub-clusters is another strategy used in in-service teacher training. The experience of *Bangladesh* shows the effectiveness of using sub-clusters of four to five schools drawn from clusters of 15-20 schools. With this strategy, a small group of 20-25 teachers can assemble for training in a particular school within a two-kilometer distance. The place of training rotates from one school to another within the sub-cluster area. *Nigeria's* PISA calls for the identification of "experts" in some subject areas from a few "good" schools. These expert teachers then provide in-service training to other teachers in their own schools as well as in schools within the local government area.

Networking

Pakistan makes use of Allama Iqbal Open University's (AIOU) distance education network of regional offices and study centres throughout the country to facilitate the in-service programme implementation.

Training Methodologies

Participatory

Participatory methods of teaching and learning are characteristic of several teacher training programmes. In *Bangladesh,* for example, sub-cluster training sessions rely heavily on the teacher trainees' active involvement in the various learning activities, as well as in open discussions with parents and school managing committee members. *Brazil's* programme is likewise characterized by the

collective participation of various individuals and groups. In *China,* too, participatory methods (e.g., experience sharing, group discussion) are utilized in training activities both within and outside teacher training schools. Essential to the conduct of the radio in-service training in *Indonesia* are learning group activities. Similarly, *Mexico's* IACAE employs participative methods of investigation, including participatory diagnosis with the community. Finally, the microteaching approach used in *Pakistan* necessitates the teacher-learners' active participation.

Reflection-action-reflection

In *Brazil,* teachers bring their practices, questions and needs to the Education Board, where these topics are discussed and reflected upon, with the help of university professors. Later, the primary school teachers discuss the results of the board meeting and decide on new sets of action to be performed. This back-and-forth process allows them to experimentally design their grade curriculum, set up goals and define basic concepts to be explored in each content area. A similar process is observed in *Mexico,* where self-evaluation is an integral part of the programme, and where monthly meetings are held to record and analyse problems and propose alternative solutions.

Multiple Interactions

India's CIG programme requires that the trainees have a variety of interactions–with self-learning materials, with audiovisual materials, with their evaluators, with counsellors, teachers, and peers during contact programmes. Similar types of interactions are found in the sub-cluster training of *Bangladesh,* in the continuing education programmes conducted by the teacher training institutions in *China,* in *Egypt's* upgrading programme, and in *Pakistan's* PTOC.

Microteaching

This teaching method, which focuses on one specific teaching competency at a time, is an essential feature of *Pakistan's* PTOC handled by AIOU. It is also one of the learning-by-doing methods used by *China's* teacher training schools.

Peer Coaching

Peer coaching/training is the hallmark of *Nigeria's* PISA. "Expert" teachers serve as role models and trainers for their peers. It is also done by *China's* teacher training schools.

Formats/Modes

Face-to-face vs. Distance Learning

Face-to-face formats are used primarily by *Bangladesh, Brazil, China, Mexico,* and *Nigeria.* The distance-learning mode applied by *Egypt, India, Indonesia,* and *Pakistan* does not, however, preclude the teachers' personal contact with supervisors and/or peers.

Individual vs. Small/large Group or Community Learning

The self-learning activities required by the distance education programmes (in *Egypt, India, Indonesia,* and *Pakistan*) are supplemented by small-group learning activities. On the other hand, the face-to-face formats of the in-service programmes in *Bangladesh, Brazil, China, Mexico,* and *Nigeria* are more appropriately designed for small-group learning. *China,* however, further utilizes large-group instruction by full-time trainers in town school classrooms. *Mexico,* in addition, employs a community learning approach through its community organization seminars.

Teacher Education Models

The programmes can also be classified according to the teacher education models they represent. Ellis (1987) identifies three forms: formal award courses, non-award activities, and school-based activities.

Formal Award Courses

These are courses offered by universities and colleges and "include conversion courses for the purpose of upgrading qualifications, a wide variety of specialist graduate diplomas ..., the in-service B.Ed. degree, and masters degree in education" (Ellis, 1987, p. 63). Programmes offering such courses are those of *Egypt* (awarding BA or BSc), *India* (CIG), and *Indonesia* (80 credits).

Non-award Activities

This category refers to "short-term courses, seminars, conferences, and other activities ... organised by employing authorities, tertiary institutions, teachers' subject associations... and other individuals and groups" (Ellis, 1987, p.63). Examples of these are the cases of *Mexico* and *Pakistan*.

School-based Activities

These are made up of "seminars, workshops, project activities and the like arranged at the school level" (Ellis, 1987, p. 63). Included in this type are the training activities conducted in *Bangladesh, Brazil, China, Indonesia,* and *Nigeria.*

Synthesis

The different academic orientations of the "best case" practices in the E-9 countries indicate variations of the typical desired outcomes of teacher training: awareness or knowledge, skills development, attitude change, transfer of training, and executive control (Sparks & Loucks-Horsley, 1990). Among these, however, skills development and transfer of training stand out as the most widely expected result of the selected in-service teacher training programmes. Underlying these goals are the assumptions that: (a) "There are behaviours and techniques worthy of replication by teachers in the classroom," and (b) "Teachers can change their behaviours and learn to replicate behaviours in their classroom that were not previously in their repertoire" (Sparks & Loucks-Horsley, 1990, p. 241).

Some programmes (e.g., those of *China, Mexico,* and *Pakistan*) integrate concern for knowledge and pedagogical skills by including in their programmes of instruction some units on teaching methodology for different knowledge areas. This supports the finding that "the most effective teachers appear to be those with good knowledge of the subject and a wide repertoire of teaching skills" (World Bank, 1995, p. 7)

Pakistan, furthermore, exposes teachers to the learner's view, an aspect often overlooked by traditional in-service teacher training programmes. This is done by presenting lessons on the learning process and the principles of language learning. *India's* CIG programme takes this perspective more fully as it focuses on the adult's holistic understanding of the elementary school child.

The various strategies employed by the selected programmes (e.g., those of *Bangladesh, Brazil, Indonesia, Nigeria*) show collaborative efforts in teacher training. This indicates that the task of improving the quality of teachers is the joint responsibility of the stakeholders in education.

On the other hand, the training methodologies used enable the teachers to experience the kinds of approaches they are expected to apply in the shift from the conventional transmissive educational model to the current interactive teaching-learning process orientation. This is reinforced by the teachers' exposure to varied combinations of training formats/modes.

Finally, the case studies demonstrate that different teacher education models can be used for different purposes in the continuing education of teachers as lifelong learners. ■

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FRUITS, FACTORS, AND FEATURES

The ultimate objective of this study was "to identify those practices which have significantly improved the quality of teaching and hence the level of learning achievement in formal primary education" (Terms of Reference, Innovative In-service Teacher Training in the E-9 Countries, Annex I). This is based on the assumption that better quality of education and improved student performance are the fruits of quality teacher training.

Considering the complexity of the teaching-learning process, however, it is difficult to establish a direct cause-and-effect relationship between teacher training and student learning. Studies on the impact of teacher training on student achievement, in fact, have yielded inconsistent findings (Torres, 1996, citing Avalos, 1991; Reimers, 1992; & World Bank, 1995). Nevertheless, keeping in mind that teacher training is not the sole determinant of student learning, it is possible to examine certain post-training indicators and, at the very least, infer the role of teacher training in the attainment of those variables.

Outcomes, Outputs, and Impact

Outcomes

The results of the programmes, with respect to their expressed goals, generally support the well-established power of training to modify the knowledge, instructional skills, and attitudes of teachers (Sparks & Loucks-Horsley, 1990).

Awareness or knowledge. The stated aims of the in-service training programmes of Egypt, India, Mexico, and Nigeria reflect this desired cognitive outcome. Reports indicate that the teachers indeed gained knowledge of new trends in their academic specializations and education *(Egypt),* gained understanding of concepts, problems, and processes relating to guidance of elementary school children *(India),* were oriented to technique-practice topics in the teaching-learning process *(Mexico),* and exposed to modern/current approaches to teaching their subjects *(Nigeria).*

Skills development. *China* reports the successful attainment of basic teaching skills by trainees in several provinces. *Egypt's* programme resulted in upgrading the professional level of participants. Several studies reveal that the major goal of *Pakistan's* programme, namely, improving the teachers' practical skills (e.g., presenting, blackboard work, responding) has been achieved.

Attitude change. Enhancement of teachers' self-confidence in *Brazil* was attained through SMEC-UNIJUÍ's emphasis on their ability to write textbooks and make their own teaching materials. *Mexico,* on the other hand, reports teachers' attitude change concerning themselves, the teaching-learning process, teaching practice, and school-community relationship.

Transfer of training and executive control. This desired outcome pertains to "the appropriate and consistent use of new strategies in the classroom" (Sparks & Loucks-Horsley, 1990, p. 241). Success in this regard is reported by *Bangladesh,* wherein the increased use of teaching aids in the classroom has been noted. In *China,* classroom observations and interviews with principals provide vivid examples of the teachers' progress and achievements in teaching after their training. A research study undertaken in *Pakistan* (Nighat, 1996) shows the effectiveness of the PTOC

programme as found in the classroom performance of PTOC graduates.

Outputs

Other success indicators, based on programme goals and objectives, are: reduced student drop-out rate (3% in 1994; *Brazil*); attainment of a university degree (on the average, 24.7% of the participants graduate; *Egypt*); student turnout (successful completion of certificate programme by 1,081 students to date; *India*); awarding of certificates of successful completion (STTPL, 70% success rate since 1992; *Indonesia*); general improvement of basic teacher qualification (*Nigeria*); and rate of completers to enrolment (62% in 1993-94; *Pakistan*).

Impact

Teacher status. The SMEC-UNIJUÍ projects in *Brazil* that lead to authorship and ownership by the teachers have greatly enhanced their status. In *China,* "local born and local grow up" teachers become "permanent" teachers and key teachers, who are able and willing to lead all other teachers to raise professional quality. Participants of the in-service training programme in *Egypt* have reportedly become more active in their profession, although graduates do not get benefits in their income. On the other hand, securing a certificate in guidance helps teachers in *India* gain a higher grade or job mobility. A brief survey done in *Indonesia* reveals that teachers consider the programme to be a morale booster. *Mexico's* IACAE has resulted in restoring the value of the teaching profession.

Student performance. Hard data on this ultimate objective of in-service teacher training are often not available. *Bangladesh,* however, reports that classroom performance of children exposed to the trained teachers increased to a good extent. In *Mexico,* improvement in the students' schoolwork and extra-classroom friendships have been noted. In *Nigeria,* a qualitative indicator of PISA's success is the acceptable performance of pupils in the national Monitoring of Learning Achievement, in what has been described as "life skills."

Impact on the community. *Brazil's* programme has had the added result of a closer integration between the school and the community. Moreover, it has created an impact on the citizens, who have been enabled to participate in political, social, and economic activities of society. Adapting teaching methods and material to rural reality has also increased the rural workers' self-esteem. *Mexico's* IACAE has likewise strengthened school-community linkage as well as parent-school consolidation.

Success Factors

The success of the programmes in attaining the outcomes, outputs, and impact described above can partly be attributed to several driving forces. These factors will be discussed here within the methodological framework used for the study.

Context

Relevance of the programme to the cultural environment appears to be a very important success factor. *Brazil's* "Teachers Build Their Practice," for example, was developed in the context of the collaborative efforts characteristic of the culture in Ijuí. Likewise, *Mexico's* IACAE respects the customs, traditions, and popular culture of the assisted population.

Clarity of programme goals and objectives is another driving force. Alignment of these with the teachers' needs further spells success, as in the sub-cluster training programme of *Bangladesh.* Moreover, consistent and supportive government policies and helpful regulations for crucial aspects of training are also essential. This is demonstrated, for example, in the cases of *China, Egypt,* and *Indonesia.*

Input

Capable personnel at all levels (management, staff, instructors/trainers, supervisors) are crucial to the success of the programmes. Thus, *Bangladesh* provides training to the education officers assigned to implement the sub-cluster training. *India,*

Indonesia, and *Pakistan,* through partnerships between key institutions, are able to harness the needed resources.

The political will of the leadership is especially important. This is evident in the cases of *Brazil* and *Indonesia.* Sufficient funding and efficient budget control are necessary, as shown in all the cases. Excellent and relevant instructional materials (preferably multimedia and with input from the teachers themselves), together with adequate facilities (e.g., centres for instructional media, library, laboratory) facilitate the learning process. In this respect, the programmes using the distance education mode in combination with face-to-face learning (e.g., *Egypt, India, Indonesia,* and *Pakistan*) have the distinct advantage of the availability of learning materials developed on the basis of instructional design principles and the accessibility of centres equipped with audiovisual equipment and materials.

Process

One of the most significant driving forces for successful programmes is the close collaboration among concerned entities (e.g., schools, colleges, or universities and government/non-government agencies; parents and teachers; teachers and the community; schools within an area). In particular, linkages with faculties of education (*Egypt*) or teacher training institutions (*China*) have proven to be very beneficial. Another factor is the use of cost-effective strategies such as school-based training (*Bangladesh* and *China*) and peer coaching (*Nigeria*).

Providing incentives for participation has also contributed to the success of the programmes. Such incentives include promotions; salary increase; travelling allowance; certificates, medals, and scholarships; credits or points. Helpful, too, are flexible training arrangements and efficient monitoring and supervision, especially in the distance education modes.

Participant involvement in all stages of programme implementation is another essential element of success, as in the cases of *Bangladesh, Brazil,* and *Mexico.* Validity of the training content is especially critical, as the *China* experience shows. Varied learning activities that call for multiple interactions and a combination of formats have been found to be effective. Moreover, as seen in the *Brazil* example, making in-service teacher development an integral part of the school calendar contributes to the successful operation of the programme.

Restraining Factors

As stated in the previous chapter, the cases presented in this book are not offered as perfect models. It would be realistic, therefore, to consider as well some factors that may hinder the complete success of the programs.

Training of Trainers

Poorly trained trainers (ATEOs) is a major problem in *Bangladesh.* Their inadequate training results in weak supervision and monitoring of sub-cluster training. Similar concerns for the quality of trainers have also been raised by *China* and *Nigeria.*

Administration

Insufficient administrative autonomy of the schools and an autocratic municipal administrative structure are problems for *Brazil.* Smooth functioning of the programme is affected by lack of control of the municipal board of education over its budget and the rather centralized planning, despite the appearance of decentralization. *Mexico,* on the other hand, experiences a lack of continuity in institutional support.

Finances, Facilities, and Resources

Although many counties and city districts in *China* offer special funds for in-service teacher training, many teacher training schools are experiencing financial difficulties with respect to their new training task.

A related concern, as cited in a survey conducted among participants of the programme in *Egypt,* is that of high tuition fees. Other problems reported in *Egypt* are shortage of facilities and delay in the distribution of texts to the participants.

Motivation

The growing neglect of regulations governing the training programme of *Egypt* seems to indicate a gradual decline in the motivation for work and study among participants, university staff members, and administrators. The lack of "customer friendly" study centres in *India* that are free of formalities, procedure-orientedness and bureaucracy, seems to dampen the spirit of learning of the parent participants in the CIG programme. Radio broadcast contents that lack relevance to the teachers' needs and conditions likewise negatively affect their motivation. In *Mexico,* the resistance to change of some education authorities hampers the overall success of the programme.

Innovative Features

The programme innovations are presented here side by side with a list of some characteristics of the conventional teacher education model that has failed (Torres, 1996, pp. 25-27). ■

The teacher education model that has not worked	Successful E-9 in-service teacher training programmes
each new policy, plan or project starts from zero	use existing structures, systems, networks, & technology or modifies existing schemes
considers training principally as a need for teachers	provide training for all participants in the education process
ignores teachers' real conditions	base modules on teacher-identified needs
sees teachers only in a passive role as recipients and potential trainees	see teachers as agents and authors of their own practice
has a homogeneous proposal for "teachers" in general	have flexible and variable content for different types of trainees
addresses individual teachers	address groups, sub-clusters, zones
is conducted outside the work place	use schools & nearby centres as training sites
is limited to a short period of time	are part of a continuing education scheme
is centred around the event (the course, the seminar, the workshop, etc.) as a privileged teaching and learning tool	use other modalities (e.g., peer coaching, microteaching, discussions, self-study, demo lessons, distance education, action research)
dissociates content and method	integrate subject knowledge & teaching skills
is focused on the teaching perspective	consider the learning/learner's perspective
is academic and theoretical	have practical, technological, personal, and critical/social orientations
is based on the frontal and transmissive teaching model	are based on student-centred, interactive teaching-learning model
is essentially incohesive and contradictory to the pedagogical model requested of teachers	use participatory, learning-by-doing, multiple interaction methods

13

POLICIES AND PROSPECTS

The trends and themes, as well as the fruits, driving and restraining forces, and innovative features of the case studies suggest some policy directions and guidelines for further improving in-service teacher training. These proposals are given in the context of field-based issues related to EFA goals.

Policy Directions

UNESCO-ILO Recommendation

At the outset, a reiteration of some statements from the UNESCO-ILO Recommendation Concerning the Status of Teachers (1984) appears to be in order. The following declarations are most relevant to the findings of this inter-regional study *(italics added):*

1. Authorities and teachers should *recognise* the *importance of in-service education* designed to secure a systematic improvement of the quality and content of education and of teaching techniques.

2. Courses and other facilities should be so designed as to enable teachers to *improve* their *qualifications,* to alter or *enlarge* the *scope of* their *work* or *seek promotion* and to keep *up to date* with their subject and field of education as regards both content and method.

3. Teachers should be given both the *opportunities* and the *incentives* to participate in courses and facilities and should take full advantage of them.

4. School authorities should make every endeavour to ensure that schools can *apply relevant research findings* both in the subjects of study and in teaching methods.

5. It would be desirable that measures taken for the preparation and further education of teachers should be developed and supplemented by *financial* and *technical cooperation* on an international or regional basis.

ICE Recommendation

In like manner, the case studies reinforce several provisions of recommendation no. 3 (on in-service training) of the 45th session of the International Conference on Education (ICE, 1996). These are *(italics added):*

1. In-service training should be organized to a greater extent *within educational establishments* and through *teamwork,* with the active participation of the teachers themselves in defining the programme.

2. Special priority should be given to the *in-service training* and education of those involved in the *management, supervision* and *evaluation of teachers* in order to enable them not only to play an administrative or supervisory role, but also to provide pedagogical guidance.

3. *Teacher trainers* and *teacher-training institutes* should play an essential part in the process of *strengthening the role of teachers* and actively participate in their in-service training. In order for them to carry out this function, programmes should be developed and designed to make teacher trainers aware of the outcomes of pre-service training, and to provide permanent contact with researchers and scientists so as to ensure that their own training is up to date.

4 *Urgent action* should be undertaken in areas where teachers are underqualified and untrained. This action should build upon the empirical skills already acquired by these teachers, as well as on their motivation and their knowledge of the local situation. Besides being a means of certification, this urgent action should strengthen the teachers' professional competence and upgrade their knowledge of current developments in pedagogy and subject matter, thus making in-service education a *continuous process of educational renewal.*

E-9 Experts' Meeting Recommendations

The above provisions are consistent with propositions discussed at the E-9 experts' meeting held in New Delhi, 6-8 February 1997. The following policy directions were agreed upon, on the basis of the analysis and synthesis of the case studies on in-service teacher training:

1 **In-service training should be for all teachers.** To preserve the gains from such training, government inputs that will motivate teachers to demonstrate skills in the classroom should be promoted. Moreover, teachers who participate in the training should be provided incentives, with the end in view of improving their status.

2 **School- or cluster-based in-service teacher training should be encouraged.** This will help reduce transportation and time problems for teachers. Furthermore, on-site training will help bridge the gap between the training circumstances and actual classroom experiences. In this regard, the use of the mobile training team approach should be explored.

3 **A more holistic approach to in-service teacher training should be taken.** This would mean integrating knowledge and skills development with attitude and value formation. Teachers should therefore learn more, not only about *what* and *how* to teach, but also about *who* is teaching and *who* is being taught. Consequently, programmes will have to include more *people* skills (e.g., communication, conflict resolution, group dynamics, team building) that may help teachers become better facilitators of learning and human development.

4 **Comprehensive in-service training should be given as well to educational leaders and supervisors** (e.g., principals/headmasters, head teachers, learning coordinators). This will create a climate that will manage innovations. Similarly, teacher educators and educational planners should be provided continuing professional development programmes.

5 **As teaching ought to be student-centred, so should teacher training be teacher-centred.** In-service training should therefore be based on teachers' needs and designed systematically, with specific goals for specific groups (*what* training, for *whom?*). Teachers should be actively involved in the planning, execution, and evaluation of their own training.

6 **Community orientation should be incorporated into the teacher training programmes.** Teacher training should fulfill specific community demands, in light of available resources. The community should also be tapped as a resource for teacher training. Moreover, parents should be given training opportunities to facilitate their own attitude change and value formation as the teachers' partners in the education of their children.

7 **In-service teacher training programmes should systematically incorporate evaluation procedures in the planning, design, and implementation stages.** This will expedite future data collection on the process and outcome of in-service teacher training.

8 **A closer articulation/interaction between pre-service and in-service teacher training programmes should be observed.** This is to emphasize their interdependence and the need for lifelong and continuing education of teachers. In this regard, alternative models that can integrate these two forms of teacher training should be considered.

9 **A system of accrediting courses and institutions should be evolved.** This will ensure quality of teacher education.

Guidelines for Replication and Going to Scale

One of the criteria for choosing the "best case" practices in the E-9 countries was replicability (i.e., the programme's potential for being duplicated and applied on a wider scale). Indicators of this criterion included cost-effectiveness, efficiency of training mode, availability of collaborating groups/ institutions, adaptability to local conditions, accessibility of needed resources.

Given the programme strengths and limitations, the following guide-lines are offered for further improvement of teacher training.

General Guidelines

The suggestions below are culled from the recommendations given by the national consultants who prepared the case studies. Although meant originally for the replication of their respective programmes, these guidelines could be applicable to other programmes as well.

1 Build and strengthen partnerships with other community institutions. Collaborate with open universities and/or faculties/colleges of education.

2 Form interdisciplinary alliances.

3 Ascertain stable financial resources, specially in less developed rural areas.

4 Establish and follow a system for selecting and training trainers, peer tutors/coaches, supervisors.

5 Determine strategies for introducing and managing innovations.

6 Communicate the value of the programme to different stakeholders.

7 Design workshops and training materials in low-cost, didactic packages.

8 Review programme content and methodology in light of participants' needs. Use participatory methods for adult learning.

9 Arrange flexible scheduling of activities, based on local conditions.

Specific Guidelines

For the replication of particular training programmes, the following additional recommendations should be considered.

● **For "Sub-Cluster Training" (Bangladesh)**
1 Use the existing supervision system.
2 Train the trainers and supervisors.
3 Provide adequate support system (transportation, facilities, funding).

● **For "Teachers Build Their Practice" (Brazil)**
1 Forge a partnership with a local university.
2 Provide training in materials development, with proper logistical support.
3 Integrate teacher training activities in the school calendar.
4 Obtain community support.

● **For "Continuing Education in Teacher Training Schools" (China)**
1 Utilize teacher training schools in the area.
2 Employ part-time trainers.
3 Decentralize teacher training.

● **For "Upgrading Elementary School Teachers to University Level" (Egypt)**
1 Collaborate with a faculty of education.
2 Combine self-learning and distance education mode with contact sessions.
3 Reduce the academic orientation (lessen courses and texts).
4 Use more pragmatic content and approaches.
5 Provide financial support/scholarship schemes to teachers.
6 Conduct periodic programme evaluation and revision.

● **For "Certificate in Guidance: Distance Mode Multimedia Programme" (India)**

1. Include teacher-parent collaborative action in the training.
2. Establish linkages with faculties of psychology and guidance centres.
3. Study the effects of the programme on learning.

● **For "Radio In-Service Training for Primary School Teachers" (Indonesia)**

1. Ensure adequate facilities, equipment, and resources (human, material, physical, financial).
2. Mobilize relevant agencies and optimize available technology.
3. Systematize the monitoring and supervisory system.

● **For "Action Research for Attitude and Concept Formation in Preschool and Primary Education" (Mexico)**

1. Solicit institutional and community support.
2. Collaborate with social workers, community organizers, and other groups.
3. Design tools to match curriculum to community needs.

● **For "Peer In-Service Approach" (Nigeria)**

1. Create a system of identifying good schools and expert teachers.
2. Develop expert teachers' training/tutoring skills.
3. Establish an efficient monitoring and supervisory system.
4. Provide incentives for expert teachers.

● **For "Primary Teachers Orientation Course" (Pakistan)**

1. Obtain adequate financial resources for materials and equipment.
2. Gather expertise from different fields in the preparation of materials.
3. Establish a network for distance education.
4. Provide incentives for participants.
5. Employ innovative training activities.

Prospects

In 1993, in New Delhi, the Summit of Heads of State of E-9 countries "expressed the faith that purposeful basic education of good quality would be the best means for the peace and happiness of the global society" (Naik, 1997). In 1997, again in New Delhi, the E-9 experts' meeting affirmed the belief that innovative and effective in-service teacher training programmes would be the best means to ensure quality of basic education.

Guided by this belief, the experts gave the following recommendations for *follow-up action.*

Information Dissemination

Seminars should be organized in the E-9 countries for a sharing of the results of this inter-regional study. These seminars for education partners (ministry officials, administrators, teachers, teacher trainers, curriculum developers, parents, community leaders, and donors) should lead to the application of findings to modify existing programmes or create new ones.

Teacher Training

In view of the mobile training team approach recommended above, a pool of resources for in-service teacher training should be created.

Research

1. The best features of the case studies should be combined in demonstration projects that can be studied experimentally before going to scale.

2. The project should be extended to study the programmes further with respect to their impact on actual teacher behaviour in the classroom and the effect of this on the students' learning achievement.

3. A related inter-regional study on "best case" practices of *pre-service* teacher training should be conducted.

4. A collaborative project to evaluate and monitor the outcomes of teacher training (pre- and in-service) in the E-9 countries should be launched. The support of UNESCO and other UN

bodies, the Asian Development Bank, and other agencies should be sought for this purpose.

5 The teachers' involvement in action research for the improvement of the quality of education should be encouraged.

6 A comprehensive profile of educational administrators and teacher educators, their training needs, and training facilities should be obtained.

7 An integrative review of studies on teacher training (pre- and in-service) in the E-9 countries should be made.

Networking

1 A teacher education network should be formed among E-9 countries. Sharing of experiences, materials, and resources could be done through internet facilities or other schemes (e.g., UNESCO chairs/fellowships).

2 Joint research, writing, and publications on teacher training should be promoted on the local, national, regional, or inter-regional levels.

3 The teaching guides, learning modules, and other innovative materials used in the "best case" in-service teacher training programmes should be made available for sharing and further refinement among E-9 countries.

Conclusion

The study on "best case" practices in E-9 countries has revealed that effective in-service teacher training programmes:

- combine distance education features with face-to-face interaction methods
- are school-, cluster-, or community-based
- develop knowledge, skills, attitudes, and values
- adopt the learner-centred, interactive teaching-learning process model
- optimize modern technology and existing structures/systems
- are responsive to teacher-identified needs in a continuing education context
- involve active community participation
- incorporate the components of theory, demonstration, practice, feedback, and coaching.

The picture that emerges, then, is a more *holistic* approach that calls for *education,* rather than *training,* programmes. *Education,* according to the International Standard Clasification of Education (ISCED), refers to "organized and sustained communication designed to bring about learning"; *training,* on the other hand, pertains to "education that is directed mainly towards the acquisition of skills" (Torres, 1996, p. 14, citing UNESCO).

The recommendations given to improve in-service teacher education are not sufficient, by themselves, to enhance teacher status or the quality of education. They must be considered alongside needed reforms in other aspects of the teaching profession (e.g., salaries, working conditions, pre-service training, empowerment). Indeed, "'Education for All' has to be addressed within a broader reform perspective" (Torres, 1996, p. 21, citing Gustaffson & Wohlgemuth).

Ultimately, however, the prospects of teacher education and universal education rest mainly in the way the teachers view themselves. As a new millennium dawns, they must see their mission as "apostles" and "shapers of the future" (Ordoñez, 1996, p. 13). Considering their paramount role, they must truly become lifelong learners, continually seeking creative and innovative means to be better. And society must facilitate and reinforce such efforts.

As the unnamed teacher from Orissa realized, if teachers did nothing but teach children–and did that well–they would have served the nation...and the world. ■

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Annex I

Terms of Reference
Innovative In-Service Teacher Training in the E-9 Countries

The E-9 Summit in New Delhi (1993) and the **Delhi Declaration** stressed the training of teachers as one of the most important elements in the battle to achieve EFA in the near future. At the meeting in Bali, September 1995, the E-9 countries identified quality teacher training as the most promising EFA strategy in the **Joint Communiqué**. In addition, UNDP has approved a UNESCO proposal for an inter-regional study on innovative teacher training. Accordingly, it seems useful to combine these closely related initiatives in order to increase the scale and depth of the study.

Traditional teacher training programmes (pre-service and in-service) in the nine countries are not only costly but are also deemed inadequate with regard to efficient, child-centred teaching practices. In-service training strategies, in particular, differ widely among and within the countries. It is in this area that the greatest attention has been given to innovation, including the use of modern technology. The objectives of the study are to identify and to analyse the experience of "best case" practices of in-service teacher training in the nine countries, in order to provide insight into the complex relationship between teacher training programmes, teaching practices, teacher status, and the desired outcomes of improved student achievement and school performance. The study would document experiences and training methodologies in order to bring them to the attention of a wider public, including educators and decision-makers in other countries. The study would also look at pre-service training, but only to the extent that it is necessary to highlight the need for in-service training. At the end of the exercise, it is planned to hold a joint meeting among the nine countries, which should result in a publication containing, inter alia, guidelines for further improving in-service teacher training programmes.

As this year's International Conference on Education (ICE) in Geneva will focus on teaching and learning, it seems appropriate for the E-9 countries to make their own contribution to the chosen theme by presenting the outline of this study and a report on progress to date. The final objective of the completed study will be to identify those practices which have significantly improved the quality of teaching and hence the level of learning achievement in formal primary education.

Phase I A preliminary study should be undertaken in each country to identify three to five promising approaches to in-service teacher training. The study should provide a summary stating why the proposed projects deserve attention. Each case description should not be longer than two pages, the total

being 10 to 12 pages. It is suggested that the consultant follow the Terms of Reference for the TSS1 study, which should guide her/him in the selection of promising approaches, bearing in mind that this study will focus on in-service training as specified above.

Phase II An international consultant will then review the proposals and select one training programme for each country for further study.
The consultant will develop methodological guidelines (approx. 10 pages) for analysing the country cases and for preparing an analysis and synthesis of these findings. The documents, i.e., the national submissions, guidelines, and first analysis, will serve as inputs to the E-9 meeting in Geneva.
It would be desirable that the representative of each country (if he/she is not the consultant) be fully briefed on this study at the Geneva meeting.

Phase III As a follow-up to the Geneva meeting, the national consultant (probably the same one as in Phase I) would prepare a more detailed case study (15/20 pages) of the selected teacher training project (Phase II), explaining why it is successful or innovative and how it works and the potential for applying it on a wider scale. The case study should be based on the methodological guidelines developed by the international consultant.

Phase IV The international consultant will draft the analysis and synthesis (15-20 pages) of the nine national studies on the basis of the guidelines developed during Phase II and the discussions at the Geneva meeting.
The paper will be submitted for discussion to a joint E-9 meeting.

Phase V The final stage would bring together the teams from the nine countries to discuss the case studies and set up guidelines for further improving the in-service teacher training programme.

Phase IV A substantial publication based upon the studies, the synthesis paper, and the final discussions will be prepared by the international consultant.

Annex II

**Proposed Analytical Framework for "Best Case"
Practices of In-Service Teacher Training**

CONTEXT

Needs Assessment

Processes and events that led to programme implementation

INPUT

Human Resources

- Management
- Organizational staff
- Instructors/facilitators
- Participants

Fiscal and Material Resources

- Budget and Funding Agency
- Facilities and equipment
- Instructional materials

PROCESS

- Contents: Programmes of instruction
- Activities
- Transfer-of-Learning Strategies
- Modalities
- Implementation policies and procedures
- Formats, schedules

PRODUCT

- Impact, output, and outcome (based on specific evaluation procedures/criteria)
- Internal efficiency (Cost-effectiveness)
- External efficiency

Cultural milieu

Philosophy

Goals and Objectives

(based on Stufflebeam's CIPP model)

Annex III

Inaugural speech
Meetings of E-9 Countries
6-8 February 1997, New Delhi, India

Dr. Chitra Naik
Member, Planning Commission, India

I am greatly pleased to be with you today and associate with you in your task of evolving new modes of teacher education in the interest of Education For All. I am sure that this meeting would be a major landmark in the process of Education For All not only in the context of developing countries but elsewhere also since the innovative directions emerging from it may give a stimulus to change in teacher education as a whole.

As you know, we are living in an era of rapid socio-economic and political readjustments throughout this globe. In this readjustment, the role of teachers would be extremely significant. They would have to be the agents of change who enable the global society to reach the objectives of Education For All with emphasis on quality and equality. That this meeting is being hosted by India, under the newly set up National Council for Teacher Education, is a happy event because this Council has the mandate of evolving innovative strategies of teacher education so that teachers are enabled to play their new role effectively in a changing society. The deliberations of this meeting would certainly have a desirable impact on the programmes of this Council. Also, the innovations emerging from this meeting may be of use elsewhere, even in developed countries. That would be a most welcome contribution.

This meeting of experts from E-9 countries, sponsored by UNESCO and supported by UNDP, UNICEF, UNFPA and the World Bank, is a natural development of the international commitment expressed at Jomtien in Thailand, seven years ago, to launch a collaborative international effort to achieve Education For All. As you are aware, the Summit of Education Ministers of E-9 countries which took place in New Delhi in 1993 strongly reaffirmed this commitment to Education For All and also expressed the faith that purposeful basic education of good quality would be the best means for the peace and happiness of the global society. While discussing different aspects of the task for Education For All, the Summit also highlighted the importance of distance education alone with institution-based education. In the mid-decade meeting of the International Consultative Forum on Education For All held in Jordan in June, 1996, the efforts made towards EFA were reviewed and commitment to education as the prime mover of development through empowerment of people was reiterated. Such key factors of development as caring for the environment, managing population growth, promoting social development, alleviating poverty, and ensuring social justice,

were appropriately stressed in that Forum. Further, the 45th Session of the International Conference on Education discussed the crucial importance of in-service teacher education and its role in continually ensuring the quality of education. One of the recommendations of the 45th Session was, therefore, directed towards reorganizing and strengthening in-service teacher education. Various strategies were proposed towards this end. The in-service education of teacher-educators, administrators and managers of education was seen as an inseparable support activity for teacher-education. In India, some of these aspects had already found place in the National Policy on Education adopted in 1986 and further refined in 1992. The Policy recognized that pre-service and in-service education of teachers formed an interdependent programme and was inseparable from the questions of quality, quantity and equality in EFA.

This meeting of E-9 experts is a logical outcome of the commitments expressed and the faith deposited in purposive and quality-conscious EFA. The meeting would certainly give its best thought to working out the operational details for reorganizing teacher education so as to harmonize it with the goals and processes of EFA as declared in Jomtien in 1990 and also with the global changes in information technologies and economic relations of developed and developing countries.

As I see it, the vision of EFA in the present era of change includes much more than the conventional school system which aimed at providing the learners with the skills of reading, writing and arithmetic. EFA has now to include in its agenda all types of learners, at all ages, and in varied socio-economic groups. It has to educate workers, parents, the deprived and the disabled, and practically everyone in the global society to change their mindset and their skills so as to cope with the rapid changes which are overwhelming both old and new societies. Education has to give the learners the capability of contributing to sustainable development, adopting democracy as a way of governance, and moving towards the ultimate goal of equality so as to promote peace. Considering this vision, our efforts have to go beyond the school system and include within their ambit practically all societies everywhere. But the developing countries must have a priority in these efforts because their right to have a place of equality among the country of nations must be firmly asserted. For these countries, adopting a mission mode in the sphere of education and adjusting the role of teachers to global changes is a priority. In this process, they will also have to address the question of professional teachers and non-professional teachers, curriculum designs to suit EFA at the primary level in particular, and methods and materials for the education of teachers. The different types of curricula essential for different purposes and groups would have to be continually readjusted henceforth, especially at the basic education level. The achievement of the minimum levels of learning at least up to Grade 3 has to be woven into the teacher education syllabus, whether pre-service or in-service, because universalization of primary education is our foremost concern. Besides, it is no longer sufficient to prepare teachers for simply 'transacting' a given curriculum. Evolving relevant, need-based curriculum has to be a skill to be mastered by teachers. I must confess

that I do not react well to the word 'transaction' of the curriculum. 'Transaction' is a word picked up from the vocabulary of business and industry. It seems to have entered educational vocabulary perhaps by accident. We need to avoid it and speak about 'interaction' between the teacher and the learner, with a flexible curriculum as the basis. Teachers and learners consulting together and working together should be the scene of the future. This should be possible because, in recent years, many avenues of learning have opened up to take learning beyond the classroom. If the goal of education is to make all of us cultured persons and efficient workers, just as learning related to the world of work is essential, learning to be cultured is equally important. This can take place only partially in an institutional set-up. As to culture, it has been with us in our countries and elsewhere for hundreds and thousands of years. We learn it through our families, our neighbourhood, our society and now through the information channels of various types. Our cultural development covers so much that it is beyond the capacity of the classroom. It need not be emphasized that the teacher of the present and of the future, has necessarily to make adjustment to this situation. Therefore, the message for teacher education is that the roles of teachers are no longer restricted to the classroom. Their roles and functions go very much beyond institutions, right into society. And since society changes rapidly under the impact of science and technology, continuous renewal of teachers' roles is an inescapable process.

In this new scenario, UNESCO and the participating countries of E-9 may have to think seriously of the type and manner of operational support for change in teacher education. Putting a regional network for teacher education on the ground as soon as possible may be a good way to start off action. This should be possible if UNESCO and/or other funding agencies come forward with the required assistance. There is a suggestion that the headquarters of the regional network could rotate from country to country within E-9 countries, every two years and thus establish the convention of sharing of experience, materials and expertise as interacting partners.

My second point is that we need to concentrate on developing good resource materials–widely adaptable–for in-service teacher education, which must now be launched with a sense of urgency. Self-learning packages, in keeping with social conditions and ground realities, have to be developed. These have to be relevant for the purposes of teachers, teacher educators, curriculum developers, administrators and educational planners. These materials could take the form of videos and computer programmes on important themes. Exchange of innovative materials among E-9 countries, and their collaboration in their further refinement, would be a great contribution to need-based teacher-education.

Thirdly, launching of in-service teacher education through the 'mobile training team' approach could be seriously considered. In the first phase, such mobile teams could start functioning in each participating country. In the second phase, they could cover different regions of E-9 countries. The 'mobile-

training-team approach has already been used by UNESCO experimentally and has yielded good results. This approach could be revived with great advantage for teacher-education.

In the efforts which we are now proposing, it is crucial to chart them out in timebound programmes. This would enable both national and international agencies to build up a well-designed new system of teacher-education for EFA. Perhaps UNESCO, or NCTE, or E-9 partners could establish a couple of fellowships/chairs with clear-cut time-bound assignments so that concepts get translated into actual programmes. A fellowship or a chair entrusted with specific tasks to be executed within a given time-span of one or two years would substantially help the new thrusts this meeting would be visualizing for promoting fast and systematic action. I expect that this would spell out specific tasks for E-9 countries and for international agencies, to be pursued over the next two or three years. The Planning Commission of India which has been concentrating on the EFA goal would be keenly interested in the outcomes of this meeting.

May I wish you all success in your deliberations and express the hope that they would lead us faster towards the goal of EFA.

Annex IV

Summary of the New Delhi meeting on innovative in-service teacher training in the E-9 countries 6-7 February 1997

The meeting on Innovative In-Service Teacher Training in the E-9 Countries took place in New Delhi, India, from 6 to 8 February 1997, at the Vigyan Bhavan. The meeting was hosted by the Government of India and organized by the National Council for Teacher Education (NCTE) in cooperation with UNESCO Headquarters and the New Delhi office. In attendance were delegates from eight countries (Bangladesh, Brazil, Egypt, India, Indonesia, Mexico, Nigeria, and Pakistan) and leading officers of UNESCO, UNICEF, and The World Bank, as well as NCTE officials and other eminent educators from India.

The meeting began with the nomination and election of Prof. J.S. Rajput, NCTE Chairperson, as Chair, Mr. Dennis C.U. Okoro of Nigeria as Vice-Chair, and Dr. Rose Marie Salazar-Clemeña, international consultant for the teacher training project, as rapporteur.

Dr. N.K. Jangira of the World Bank (WB) expressed his agency's support for the recommendations of the Jomtien Conference on EFA and endorsed the E9 project of improving teacher quality.

Dr. Gordon Alexander likewise reaffirmed UNICEF's commitment to the goal of universal primary education. He stressed the importance of reestablishing the teacher at the centre of efforts to improve the quality of education and asserted the role of the community in the management of schools. He further voiced UNICEF's concern for the education of girls and child labour.

Mr. Warren Mellor of UNESCO, New Delhi, then spoke about UNESCO's task to assist in constructing the defense of peace in the minds of individuals, hence its commitment to education and EFA. He also outlined the themes guiding the work of UNESCO in New Delhi (i.e., distance education and teacher education, literacy of women and disadvantaged groups, curriculum and values). He likewise conveyed the expressed support of UNDP and UNFPA for efforts to improve the quality of teaching.

Mr. Wolfgang Vollmann of UNESCO stated the purpose of this particular meeting as the sharing of information on two key issues in primary education: innovative in-service teacher training programmes and the syllabus of the 3 Rs in the first three grades. He provided a brief background of the country-based study on teacher training sponsored by UNESCO-UNDP, stressing the need for teachers who are able to respond to the growing demands of primary education.

Mr. Vollmann further explained that the study envisaged to provide a visible platform for the most promising and effective in-service teacher training programmes. He also reported on the phases of the study that had been accomplished thus far, and the work that lay ahead.

Dr. Salazar-Clemeña then made initial remarks on the work that the national consultants had completed and invited comments on the draft synthesis that would be presented in preparation for its final publication.

After a video presentation on teacher training, the national consultants discussed their respective teacher training programmes that had been chosen on the basis of their innovativeness, replicability, and impact. The country presentations lasted until the afternoon, with lunch and coffee breaks in between. Questions and issues which were raised following each report are summarized below.

Bangladesh: Sub-Cluster Training *(Mr. Anowarul Aziz)*

1. Incentives: Refreshments are offered to the teachers during training sessions. Starting next year, a small sum will be given to each cluster for organizing training programmes.
2. Training in rural areas: The same procedure is used in other areas: Assistant Thana Education Officers (ATEO) train teachers in sub-clusters.

Brazil: Teachers Build Their Practice *(Ms. Maria Alice Setubal)*

1. Election of principals: This is done by teachers and students.
2. Programme impact: Qualitative data show positive impact on teacher performance and self-esteem.
3. Municipal school council: The members are representatives of teachers, parents, students, and management. They are elected by the community every two years.

Egypt: Programme of Upgrading Elementary School Teachers to University Level *(Dr. Ali El-Shikhaiby)*

1. Content of training programme: There is a balance between academic and practical concerns.
2. Student support system: Weekly discussion meetings with faculty staff members are scheduled at the study centres.

India: IGNOU's Distance Mode Multi-Media Programme in Child Guidance *(Prof. O.S. Dewal)*

Questions raised were on the Special Orientation of Primary Teachers (SOPT), another case study presented by Prof. Dewal.

Indonesia: Radio In-Service Training for Primary School Teachers *(Prof. Yusufhadi Miarso)*

1. Cost of radio broadcasting: Radio stations air the lessons free of charge, but radio operators are given an honorarium.
2. Evaluation: Learning is measured through examinations; monthly reports are checked by school supervisors.

Mexico: Investigation-Action on Actualization of Concepts and Attitudes in the Teaching-Learning Process in Primary and Preschool
(Mr. Felix Cadena Barquin)

Impact: Assessment of popular education shows a positive impact on teachers, parents, children, and the community.

Nigeria: Peer In-Service Approach *(Prof. S. T. Bajah)*

1. School heads: There is a need to attend to their professional development as well.
2. Inter-school cooperation: Private schools, which are often the "good" schools, are able and willing to help public schools.

Pakistan: New Primary Teachers Orientation Course, Allam Iqbal Open University Islamabad *(Dr. M. Maqsud Alama Bukhari)*

1. Distance Education mode: Regional centres do not have satellite access at the moment.
2. Classroom experience of trainees: Participants are required to be trained teachers with at least 3 years of service.
3. Duration of training: There should be some justification for the scheduled length of training in the different components (e.g., Why five days?)

Leading educators from India were then invited to give their comments.

Mr. A. Bordia, Chair of the Lok Jumbish Parishad, expressed the Indian government's concern to improve teacher quality and discussed NCTE's role in this regard. He also summarized the national action plan for primary teacher training in the next five years.

Mr. S.C. Behar, from the Planning Board, Government of Madhya Pradesh, shared the following observations and reflections:

1. Teacher training programmes generally appear to be more on the side of the cognitive development of the students as they stress the teachers' capacity to provide knowledge.
2. Pre-service teacher training programmes are very inadequate and do not provide training equivalent to those of other professionals in society, hence the low status of teachers.
3. Result-effectiveness is often sacrificed for cost-effectiveness.
4. The hierarchy in the educational system, with primary school teachers at the bottom, mirrors the greater value attached by society to knowledge and degree acquired than to skill in teaching the child at the formative stage.
5. In-service teacher training programmes use a top-down approach; it is time to learn from the teachers themselves.
6. The culture or environment provided during the training is not the same as what the teachers experience in the classroom.
7. The community should be tapped for inputs to help improve teaching the effectiveness of teaching.

8. The link between secondary schools and primary schools does not figure anywhere; the idea of a school complex involving both levels should be explored.
9. Follow-up action could take a total look at pre-service teacher training.

Mr. Okoro recommended that innovative classroom practices be tried out in a macro-economic context, taking into account the reality that most primary school teachers teach large classes rather than the relatively small classes they are exposed to in experiments.

Prof. Rajput, in closing the proceedings for the first day, expressed satisfaction with the discussions that had transpired so far.

The discussion on the morning of 7 February took place at the NCTE office.

Dr. Salazar-Clemeña presented her analysis and synthesis of the case studies. The paper summarized the trends and themes, outcomes, outputs and impact, as well as issues and problems of the training programmes. It also highlighted their innovative features and the contexts in which these were carried out. Guidelines for possible replication and going to scale were given with respect to each programme. The paper concluded with policy implications and general recommendations for further improving teacher training programmes.

In his response to Dr. Salazar-Clemeña's presentation, Mr. Vollmann emphasized the importance of this sharing of knowledge, experience, and expertise in the context of the E-9 initiative. He suggested that a follow-up action might be for the delegates to organize seminars in their respective countries to present the experience of the eight other countries to other professionals.

The following suggestions were given in the interventions that ensued:

Training

1. Provide in-service training for principals/headmasters, teachers/ learning coordinators, and teacher educators, to create a climate that will manage innovations.
2. Involve all teachers and the heads of schools in teacher training.
3. Consider alternative models for teacher training (e.g., a five-year training after secondary education; broader course equipping teachers to be communicators; induction/entry point training).
4. Systematize training based on a list of desired characteristics (What training and for whom?).
5. Involve teachers in the planning, execution, and evaluation of training.
6. Train teachers in systematization: how to practice knowledge generated.
7. Provide in-service training for vocational education teachers.
8. Make teacher preparation more relevant to actual classroom experiences.

9 Include values education in in-service teacher training.
10 Tap the community as a resource for teacher training.

Research

1 Deliberate on how to develop "reflective teachers."
2 Study inputs acquired by the trainee, exhibited skills, and the effect on students.
3 Study the kind of pre-service training going on in E-9 countries, to put in-service training in context.
4 Meet to evaluate teacher training projects in the nine countries; develop appropriate instruments; share information gathered.
5 Review studies on teacher training in the nine countries.
6 Extend the project to study the programmes further, with respect to their impact on actual teacher behaviour in the classroom.
7 Encourage teachers to conduct participatory research as a way of widening their horizons.

Policy

1 Provide incentives for teachers who participate in in-service training.
2 Encourage partnerships between secretaries or ministers of education and secretaries or ministers of finance.
3 Promote government inputs that will motivate teachers to demonstrate skills in the classroom.
4 Create a pool of resources for in-service teacher training in the nine countries.

Others

1 Invite the international consultant to share her synthesis with the ministers who will attend the E-9 meeting in Pakistan in September 1997.
2 Change the term "donor" to "supporter" or "partner" agencies.

The meeting ended with a vote of thanks from Prof. Rajput.

Bangladesh
Brazil
China
Egypt
India
Indonesia
Mexico
Nigerian
Pakistan