

THE ROLE OF DISTANCE TEACHING IN IN-SERVICE TEACHER EDUCATION

Peter E. Kinyanjui, Director, Institute of Adult Studies,
University of Nairobi, Kenya

Introduction

It is an undisputable fact that all countries of the world are committed to providing more and better education for their people. However, few countries have managed to honour their commitment in full because of certain shortages, one of which has been that of qualified teachers. Different countries have approached the various problems related to the provision of education from different angles. Developing countries, in particular, have found themselves in a position whereby, in order to provide education for more children, they have had to employ under-qualified or even unqualified teachers in the schools. And yet many of these countries are not able to expand the provisions for education as rapidly as they would like. There are too few resources, human and material, and too many other developmental problems which demand an equal share of attention. Some countries are already spending as much as a quarter of their total annual budgets on education. If there is going to be greater expansion and improvement in the provision for education, then new ways and methods have to be employed in order to keep expenditure on education in proportion. Ways and means will have to be found of determining how best a country can employ its limited physical and human resources in order to achieve maximum educational results, both quantitatively and qualitatively.

Development of any form of education presupposes availability of teachers in sufficient numbers and possessing the relevant qualifications. Educational planners and administrators have come to realise that any developmental change in education, in terms of numbers and quality, will not be achieved purely by physical facilities and equipment being made available. Hence the task of recruiting teachers and training them has formed an integral part of the educational strategy in developing countries. Although the traditional training colleges have been expanded to offer pre-service courses to teachers in residence, their output will never be able to match the rising demands or even replace the existing unqualified staff. In-service teacher training and upgrading programmes have therefore been mounted to increase the output of qualified teachers, with the added advantage of permitting teachers to enter the profession and obtain professional qualifications while employed.

A realisation that is increasingly receiving attention is that the training of a teacher should no longer be conceived as having been completed once and for all after a specific period of training, but that it should be continued throughout his career. This is made even more necessary by the rapidly changing curricula in the schools calling for more specialised training in the teaching of new subjects such as mathematics, languages, physical sciences and social sciences. In this respect, the traditional methods and techniques of residential teacher training will not suffice. These will have to be buttressed and supplemented by modern technologies and techniques in order to speed up the desired innovations in education.

Problems of Expansion of Education

Developing countries have to face all aspects of educational expansion and reform simultaneously and in a relatively short space of time, rather than through gradual stages in evolution as experienced in the more developed countries. As far as the problem of education is concerned, most developing countries have been grappling with the question of quantity first, and that of quality next.

Perhaps the most convincing argument for in-service teacher training programmes is that more qualified teachers are produced in a relatively short period to provide staff for the schools which are required as the developing countries move nearer towards the ideal of the democratization of education. This is the almost universally held principle; the right of every individual to an education - at least in theory, if not in practice.

Problems of Quality of Education

The problem of quality of education in developing countries is much more difficult, and it will necessarily take longer to solve than the problem of quantity. First there is a lack of up-to-date indigenous books and teaching aids to use in the schools, and together with this is the shortage of local writers and publishers to develop and produce relevant teaching materials. Second, there is a shortage of qualified and experienced key personnel, that is, teacher educators, supervisors, educational planners, curriculum developers and educational administrators, to provide competent leadership. These ranks of leadership will need to be expanded, but the process will be slow since there is no short cut to the creation of this leadership. Third, there is a shortage of classroom teachers with sufficient academic and professional training to cope with the actual task of teaching effectively.

The quality of education in any country will depend to a large extent on the quality of the teachers available to provide that education. There has been a gradual realisation that no educational reform will come about unless the teaching profession itself undergoes reform. And even so, there will be a time-lag between the improvement of teacher education and its full impact in the schools. Teacher preparation should not, therefore, be simply a question of training the number of teachers necessary to meet the projected educational needs of a country. It should be seen rather as an important part of a total and continuous development effort. Creating a long-range educational strategy includes planning for educational reforms, in both form and content, in accordance with the aspirations, needs and resources of a given country.

Many governments, after making heavy capital investments in education following independence, have now come to realise that investment in school buildings and equipment will be fruitless unless placed in the context of such a strategy, and that, without educational reform, social and economic development will be retarded, and education will thus be seen to have failed in meeting the needs of a country.

Problems of Costs of Education

Educational institutions always represent a sizeable investment in resource - personnel, buildings facilities, equipment and money. At a time when people of all ages are demanding more formal as well as non formal education the fullest exploitation of existing resources is required. At the same time, a close examination of the degree of efficiency and effectiveness of orthodox methods of instruction should be carried out and, where found inadequate they should be replaced or supplemented by newer methods which modern

technology has provided. After all, using traditional methods, we have only managed to educate half of our population.

Educational costs will be subjected to closer scrutiny than ever before especially as other equally pressing development priorities compete over the national budget allocation. The question of cost is one which has not been dealt with satisfactorily with regard to the establishment and the running of institutions dealing with in-service teacher training programmes. The costing that has been done on most projects so far has concentrated on incomes and expenditure figures of the ministries, institutes or departments of education responsible for teacher education in their respective countries. There are problems involved in calculating the actual costs of a programme due to the many hidden and assumed costs. In certain cases, several institutions might be involved in the teacher education programmes and here it is difficult to cost the contribution of each one separately. The same difficulty applies to the costing of both modern and traditional methods for teacher training. But one thing is certain; there is urgent need for careful analysis of costs of alternative methods of offering education and training in order to show where economies could be made.

The Role of Distance Teaching

It is appropriate at this point to define what we mean by 'distance teaching' before examining some of the possible roles it can play in teacher education and training.

For our present purposes, we shall take distance teaching to mean an educational process in which a significant proportion of the teaching is conducted by someone removed in space and/or time from the learner.

In practice, distance teaching usually involves a combination of media such as print and broadcasts with some face-to-face instruction. The distance teaching approach stresses the physical separation of tutor and student, but the teaching and learning processes are conducted through a suitable combination of media which include some kind of face-to-face study.

Distance teaching has certain features which warrant close attention when applied to the problems of in-service teacher training. First, it is a cheap and cost-effective method of training at a time when in most countries education is demanding an ever-increasing share of the national budget. It makes use of postal and broadcasting systems which are operational; it does not require a large capital outlay on buildings and equipment; it makes more efficient use of the time and skill of teacher educators. Teachers undergoing training are performing a job while they study and therefore, far from being a financial burden on the country, are continuing to contribute to the economy; teachers who embark on in-service courses are less likely than conventional teachers to leave the profession on qualifying; and finally, what the teacher under training learns can be put into immediate effect, while at the same time his classroom situation provides him with an instant and continuing opportunity for practice.

Secondly, distance teaching allows a degree of flexibility which is necessary in view of the study problems which must face a student already engaged in a full-time and exacting occupation. Trainees can fit their studies into their free time with periods of intense activity reserved for vacations. It can also be applied to a variety of training contexts, presenting an ideal channel for the dissemination of ideas throughout the profession, and for the continuing training of teachers throughout their careers. And it is suitable for adaptation to a variety of difficult geographical circum-

stances; it can reach teachers in the most distant and isolated parts of a country - and it is usually these who are most in need of support.

Thirdly, distance education, representing as it does the injection of new concepts in education, can contribute towards educational innovation and reform by helping to re-define the aims, objectives and techniques of the educational process. Distance education has provided newer dimensions to what is already known about teaching and learning processes. We know, for instance, that students can and do learn efficiently at a distance. The important conditions for this are, however, the provision of systematic and structured units of instruction, encouragement and involvement of the student in the learning activities, and an efficient system of feedback between the teacher and the learner.

Thus, if distance teaching is well structured, using a variety of media and providing for feedback, then it offers a method of education different from that of an orthodox institution. It makes it possible to extend education and training to people who, for one reason or another, cannot get to a residential institution. Distance teaching has also been used to support and supplement in-service training of teachers as can be seen from the following list of projects selected from around the world:

1. KENYA - The Correspondence Course Unit based at the University of Nairobi. The first programme aimed at the academic upgrading of primary teachers; the second programme aimed at providing training for primary teachers who had no professional qualification. Current programmes employ correspondence, radio and face-to-face teaching.
2. ALGERIA - CNEG made use of correspondence lessons, radio, television and face-to-face teaching to provide in-service courses in Mathematics and Education for monitors.
3. SRI LANKA - The Ministry of Education set up a Correspondence Teacher Education Unit to train teachers on the job. Correspondence Courses were supplemented with radio broadcasts and face-to-face teaching.
4. BOTSWANA - Francistown Teacher Training College was established to upgrade all existing unqualified primary teachers by means of correspondence and face-to-face teaching.
5. SWAZILAND - William Pitcher Teacher Training College offers in-service courses for teachers through correspondence and residential face-to-face teaching.
6. UNRWA/UNESCO - The Institute of Education project was set up in Arab refugee camps to train teachers. Correspondence lessons were supplemented by tapes, film-strips and face-to-face teaching.
7. MAURITIUS - The Mauritius College of the Air had as one of its concerns the need to re-train the primary school teachers in modern mathematics as necessitated by the new curriculum. The media used included television, radio, correspondence and face-to-face teaching.

8. UNIVERSITY OF THE SOUTH PACIFIC - Provided in-service training for un-qualified teachers in academic and professional courses. Because of geographical conditions only correspondence instruction was used supplemented by film strips and taped lessons.
9. NIGER & IVORY COAST - In-service training of monitors was carried out in these two countries using television and face-to-face instruction.
10. UGANDA - The Correspondence Unit at Makerere University conducted in-service primary teachers' courses through correspondence and face-to-face teaching with supplementary radio broadcasts.
11. PHILIPPINES - The Ministry of Education has recently established a programme for Continuing Education of Teachers using radio, face-to-face teaching and printed materials.

Some Critical Decision Points

From various studies, researches and evaluation of projects based on distance teaching for in-service teacher education, certain conclusions could be drawn. For the purposes of this paper, these conclusions will be outlined in the form of some critical decision points which must be taken if a distance teaching system is to be effective.

First, during the initial stages of project planning, there should be a clear and agreed statement regarding the project aims and objectives, a definition of educational needs to be met by the programme, and a definition of the learners' needs and characteristics. The project should be established on a clear official policy, bearing in mind the physical and human resources available as well as the constraints and limitations which might be imposed by finance, time, personnel, and so on.

Second, a decision will have to be made on what type of media will be used in a distance teaching programme. Different countries have selected certain media because of their convenience and availability; and varying degrees of emphasis are given to each medium. Whichever media are selected, it is important to note that face-to-face instruction has been found to be essential in the in-service training of teachers since it has provided an opportunity for the teacher to perform certain functions which are difficult to accomplish through say, correspondence or broadcasts. In addition, face-to-face contact sessions provide the human sensitivity and attention which are often lacking in most mass media. The important point to remember here is that, although the organization of face-to-face study is perhaps the most crucial activity in in-service teacher training programmes, it has proved to be much more difficult and expensive to set up for all participants affected by the programme. The time set aside for this activity should therefore be fully utilised by both the teacher and the learner.

Third, we do know that motivation on the part of the learner is necessary for effective learning, and more so when he is learning at a distance. Therefore, for distance teaching to be effective, in the sense of retaining its learners to the end of their course, they need to be highly motivated. For teachers undergoing in-service training, they should be made to see the relevance of their studies to their own profession and their careers.

Fourth, motivation by the distance learner should be matched by an appropriate and efficient organization to provide support to him. Drop-out rates can be minimized through the provision of support services to the learner without delay.

Fifth, it should be made clear that distance teaching is not necessarily a cheap way of solving educational problems. It may work out cheaper or dearer than another alternative - the crucial determinant is the size of the operation and the student numbers. For any given distance teaching unit, there is a minimum size below which it would be difficult to operate the unit regardless of the number of students it teaches. And that minimum size demands a minimum number of students if its costs are not to be out of proportion. Thus a decision should be taken regarding the minimum and the maximum size of a distance teaching operation.

Sixth, the recruitment and training of personnel to work in a distance teaching unit should be done carefully and systematically. There is a richness in the variety of skills to be found in a well established distance teaching unit - ranging from subject specialists, editors, media specialists and educational technologists to student counsellors, administrators, records keepers, material producers and distributors. All these necessary skills need to be learnt and developed, and therefore continuous training of the staff is mandatory.

Seventh, continuous feedback and evaluation is necessary in any distance teaching project and must benefit the institution, the teachers and the learners. Obviously, numerous assumptions must be made in setting up a distance teaching unit and in the selection of media to be used, either separately or in combination; but these assumptions will need to be verified at one stage or another.

Eight, a distance teaching unit needs to have a certain amount of in-built flexibility so as to be able to adapt to the changing needs and conditions of the country. It should, for instance, be possible to change the course content or the main clientele without overhauling the whole machinery and personnel operating the unit. This is where the 'trial' or the 'pilot' stage of any project becomes so important in that the mistakes made at an early phase are rectified before they are multiplied.

Ninth, while we know that a large amount of work is involved in planning and preparing correspondence teaching materials, in testing and revising them, in administering the programme, in correcting and commenting on the learner's work, in supervising the learners, and so on, there is a tendency to forget or overlook the extra work on the side of the teacher trainee. This requires a considerable amount of self-discipline on his part, and, as such, he should be rewarded for his efforts. Incentives of higher status and salary increments will, no doubt, play a part in maintaining his interest in the programme and in attaining high completion rates. But one would hope that the teacher will look beyond the material benefits of the in-service training and beyond the certificate issued at the end of the course, and that he will enjoy his studies and discover their applicability to the actual teaching situation. Above all, one would hope that the teacher will continue to improve himself for the rest of his professional career.

Conclusion

Obviously, it is not the intention of this paper to claim that distance teaching can solve all the educational problems in a country. But, given a chance, it can offer one more tool with which to bring about in-service teacher training and development which should be going on all the time. Indeed, we would like to view any system of teacher training, not as one which has a beginning and an end, but one which is spread out over the entire professional career of a teacher and which reaches out to those who provide supporting and advisory services. It should be viewed as a long term open ended system, with many entrances and exits - in other words, a system of 'continuing' teacher education. There is no doubt that the use of orthodox methods to meet these needs will be slow and expensive. We have suggested that perhaps distance teaching might be the most practical and most effective way of disseminating the idea of 'continuing' teacher education as rapidly and as widely as possible.