

Managing and Financing Teacher Education Using Distance Mode : A Study

*M. M. Ansari**, *N. K. Dash***

Introduction

In pursuance of the objectives of universalization of elementary education, there has been considerable expansion in institutional infrastructure of the school system, which has profound impact on teacher demand. As the outcome of schooling is seen and felt in every walk of life, the social demand for education, as reflected in rising enrolment trends, has far exceeded the supply of trained teachers. The growth in knowledge and technology-induced changes in the process of teaching-learning, require preparation of a cadre of teachers who could effectively utilize educational technologies for imparting quality education. Inability to meet the demand for teachers is the major factor responsible for deterioration in quality of education, heavy dropouts and low level of learning attainments. It is because of the reason that the realization of constitutional objectives of providing free and compulsory education to all has remained elusive and a hope for the creation of a culture of life long learning is adversely affected. The situation poses a major threat to the national endeavours to create an enlightened and prosperous society.

We all know that the world enters the knowledge era. The policy makers worldwide grapple with the challenge of stimulating education-led economic growth and social progress, most developing countries, including India, find their capacities to respond to such challenges undermined by lack of most basic resources-teachers. Their abilities to participate in this knowledge era and to meet the target of education for all would depend on their success in training new teachers, upgrading existing teachers and extending the reach of all qualified teachers. The task is urgent, but traditional system of teacher's training is not duly responsive to the needs for coping with the large numbers of under and unqualified teachers. As the teacher's training methods and approaches are being upgraded and improved to cater for a larger number and to provide quality education, the programmes should be designed such as to extend the benefits of distance education to the training and upgrading of teachers. In view of

* *Director, Distance Education Council (DEC), IGNOU, Maidan Ghari, New Delhi-68*

** *Reader, School of Education, IGNOU, Maidan Ghari, New Delhi-68*

this, this paper has twin objectives: one is to identify the major problems and issues in management and financing of teacher education and other is to discuss the role of distance education in promotion of teacher education. Finally, policy implications are outlined.

Teacher Education: The Current Scenario

There are about 50 lakhs teachers at the School level, of which 65 per cent teach at primary and upper primary levels (Grade 1-8). Nearly 75% teachers are in the Government schools, while the remaining 25% are attached to the private schools. The level-wise distribution of teachers is presented in Table-1.

Table-1 : Number of Teachers by Types of Schools, 1998-99

(in. 000)

Level	Total	Female	Female %age
Primary	1904	658	34.6
Upper Primary	1278	464	36.3
High/Hr. Secondary	1747	579	33.1
Total	4929	1701	34.5

Source : *Selected Educational Statistics, 1998-99*

MHRD, Govt. of India : 2000

The share of female teachers has steadily increased and at present it accounts for 34 percent. This share in rural, remote and educationally backward areas is very low.

The share of trained teachers, having a Bachelor's Degree in Education (B.Ed.) is about 90 percent. This share however varies across the States from less than 30 percent for Assam to almost 100 percent for Chandigarh. The number of male untrained teachers is greater than that of female teachers at all levels in the country.

The proportion of trained teachers is positively associated with learning attainments and negatively related to the rate of drop-outs. Training of teachers is therefore critical for both improving retention as well as quality of education. The mis-match between supply of and demand for teachers is reflected from deterioration in teacher-pupil ratio from 1:24 in 1950-51 to 1:42 in 1998-99 at primary level. A similar trend is observable for upper primary as well as secondary levels, Table-2

Table-2 : Teacher-Pupil Ratio

Year	Primary	Upper Primary	High/Hr. Secondary
1950-51	1:24	1:20	1:21
1960-61	1:36	1:31	1:25
1970-71	1:39	1:32	1:25
1980-81	1:38	1:33	1:27
1990-91	1:43	1:37	1:31
1995-96	1:47	1:38	1:33
1996-97	1:45	1:38	1:33
1997-98	1:42	1:37	1:31
1998-99	1:42	1:37	1:31

Source : *Selected Educational Statistics, 1998-99*
MHRD, Govt. of India: 2000

The trend in teacher-student ratio, which shows higher concentration of students per teacher indicate that deficiency in teacher resource in mainly responsible for both low level of learning as well as heavy drop-outs at primary (50%) and secondary (70%) levels.

A teacher's burden was assessed by a study, which indicated that 42 percent of primary school teachers teach two classes or more, at a time. About 50 percent of upper primary/middle school teachers report that they teach four or more subjects. More than 60 per cent of teachers teach about 50 students on an average; 34 per cent teach between 51 to 100 students; and about 5 per cent more than 100 students. This means that, on an average, about 39 percent of teachers teach more than 50 students in the primary schools. On the other hand, at the high/higher secondary levels the teacher pupil ratio was 1:31 in 1998-99.

In spite of manifold increase in number of teacher training institutions as well as enrolment per institution a large number of teachers teaching at the schools level are not duly trained (about 5 lakhs). But, there is also a huge backlog of trained teachers, who are registered with employment exchanges for obtaining teacher's job. Because of low quality of such teachers, they are probably unemployable. They are large in number over 4.6 lakhs in 1984. The recent data are not available.

In effect, thus, quality of teaching is sacrificed due to both teacher's load in terms of high concentration of students and teachers' engagement in diverse educational, administrative and social activities. In the backdrop of rapid advances in all fields of

knowledge, especially in sciences it is imperative to make regular knowledge refreshing and upgrading material. It would however require that a system should be put in place to effectively respond to meet the demands for quality teachers.

Management of Teacher Education

Diversities of socio-economic conditions of Indian society and federal character of the Government, require that educational activities should be duly responsive to the teaching-learning needs of the schools that are established by various sections of the society and levels of the Governments. The management structure of school system, including the institutions responsible for teacher education and training have accordingly evolved.

Under the constitution of India, the Central and the State Governments have the joint responsibility for education. For historical reasons, the States have however a major role in managing and financing education. The Governments have encouraged private initiatives at all levels of education and in almost every sphere of educational activities including teacher education.

On the principle of decentralization of management of primary education, Village Education Committees (VECs) have been set up in many parts of the country. These committees are responsible for enrolment and retention of students in schools, they supervise the functioning of schools, check and monitor teachers' absenteeism and mobilise additional resources. In effect communities, participation in effective functioning of schools has been ensured.

The State Governments are chiefly responsible for planning, financing and administration of education. They obtain feedback from the District Boards of Education, which prepare District level educational plans for development of infrastructure, instructional materials and train teachers. The overall performance of District Boards is much less than expected. As discussed in the previous section, the existing scenario reflecting mis-match in supply of and demand for teachers, demonstrate the State/ District level bodies are ineffective to plan and manage teacher education. First, trained teachers are in surpluses in some States whereas other States, especially the educationally backward States face shortages; Second, a large number of teachers are to be provided training and re-training to upgrade their knowledge and teaching skills; Third, teacher-pupil ratios have over time deteriorated which has adversely affected both learning attainments and retention. Obviously, the State level bodies have ineffectively managed the quantitative and qualitative aspects of teacher education, as there is no proper

degree of correspondence between the supply of and demand for teachers to cope with the challenge of providing worthwhile education for all.

As the Central Government is also responsible for promotion of education in partnership with the States, it has evolved its own mechanisms for policy interventions. The followings are noteworthy :

In pursuance of the recommendations of the National Policy on Education 1986, a high priority for teacher education has been accorded. Accordingly, a centrally sponsored scheme of restructuring and re-organisation of teacher education has been undertaken by the Centre, in cooperation with the State to supplement their efforts. These schemes include : (i) establishment of over 430 District Institute of Education and Training (DIETs); (ii) support for over 72 Colleges of Teacher Education and (iii) more than 31 Institutes of Advanced Study in Education. The Centre has stepped up funding support to the above types of education, which cater for varying needs of teacher education. The NCERT and other organisations have developed integrated packages with a view to improving training of teachers. The programme of Mass Orientation for School Teacher was also envisaged to achieve a target of orienting five lakhs teachers each year. But, the implementation of these programmes has been tardy due mainly to inefficient management of partnerships between the Centre and the States to augment teacher resources.

Lack of uniformity in maintenance of standards of teacher education by the States particularly due to variations in admission criteria, qualifications for teacher recruitment, etc. quality of teaching has hampered. The Centre has therefore established the National Council for Teacher Education (NCTE) to ensure that the quality of programmes in teacher training institutions is improved. As per the stipulation of NCTE, the institutions are required to adhere to certain norms and guidelines with regard to infrastructure, staff and other teaching inputs. As an apex body, NCTE is expected to effectively plan and manage teacher resources such that the requirements of education system are met for providing quality teaching. The NCTE has the mandate to ensure coordinated development of teacher education in the country, as well as to maintain and regulate standards.

Since a multiple of agencies under the aegis of the Centre and the States are responsible for promotion and coordination of teacher education, lack of effective cooperation and inefficient management of institutions are chiefly responsible for creating bottleneck in supply of competent teachers, who have proved to be indispensable for educational development. The realization of NCTE's objectives of coordinated development of teacher education would however depend on the extent of cooperation and support it

would receive from the States' Bodies. And, more importantly, the required funding support from the Centre and the States to augment facilities, as per the norms and standards evolved by itself and that commensurate with the requirements for teachers.

Financing Teacher Education

Teacher education is a critical component of education, especially at the school level, which require strengthening for ensuring education for all. The Centre and State Governments earmark funds for teacher education, as both the levels of Governments are responsible for preparing a cadre of teachers through the institutions established by them. Teacher education in the Government supported institutions is subsidized to the extent of over 95 per cent whereas the institutions under private management are largely self-financed. The overall allocation of resources for primary education has generally been inadequate as compared to the requirements for establishing new schools, creation of infrastructure and recruitment of teachers. Teacher education activities are therefore adversely affected. The actual utilization of funds in relation to budget allocation by the Centre in the last few years has generally been very low, which is attributable to lack of effective implementation of schemes. In fact, the backward States, mainly BIMARU, are unable to meet their matching shares or for the fear of increasing financial liability in future, they do not benefit from Central plan assistance.

The share of expenditure of teacher education in relation to the total expenditure on primary education is static, around 6-7 percent for over two decades. The corresponding ratios for secondary education are less than one percent. Inter-state variations in expenditure on teacher education is very wide, which indicate that the perceived role of a teacher in educational development differ across the States. Most States however follow the national guidelines for determination of teachers' salary, which is based on academic qualifications, training and experience. There is thus a parity of salary scales and other benefits across the States and other private aided schools. Over 95 percent of expenditure on school education is accounted for payments of salaries of staff. And because of bulging expenditure on account of salaries, most states are unable to appoint teaching staff under regular scales of pay. An option available to them is to appoint teachers in non-regular scales as para-teachers. But, teacher organisations have powers for collective bargaining to secure better service conditions for their members. In effect, thus low costs options for recruitment of teachers gets discarded due to both mounting pressure of teachers' unions for better service conditions and inability of states to meet the recurring financial liability. Quality of teaching as well as effective management of education thus, scarified.

Of late, the NCTE has prescribed the norms and guidelines for offering teacher education programmes with a view to assuring quality of teacher education. Many institutions that exist and provide teacher education, do not meet the norms since they suffer from deficiency in physical infrastructure, including teachers' trainers. Of the total 2650 existing institutions, in 1999, only 408 (15 percent) clearly qualified for NCTE's recognition as they could fully meet the norms for quality assurance. At least 51 per cent institutions obtained provisional recognition since they did not fully comply with the prescribed norms and guidelines. As many as 85 institutions were refused by NCTE on grounds of deficiency in facilities for providing teacher education.

Among the new institutions, in 1999, which sought NCTE approval, only 92 (6 percent) of 1498 institutions got recognition. These results not only show lack of preparedness for offer of acceptable quality of teacher education but also reveal the extent of physical and financial requirements for equipping the institutions to effectively realise their objectives. Obviously, inadequacy of funds for development of infrastructure is mainly responsible for creating hindrance in promotion of teacher education.

In view of the overall low budgetary allocation for school education and huge requirements to promote teacher education as per the NCTE norms, there is urgency for adopting innovative and cost-effective approaches to upgrade the quality of teacher education as well as to provide teachers' training on recurring basis to all those who are eligible and aspire for improving their competence. In this context, alternative methods of teacher education, such as, distance mode needs to be examined.

Teacher Education Through Distance Mode

The teachers' training programmes have expanded manifold, yet they have not kept pace with the growth of overall educational system. Teacher education has therefore been criticised on grounds of quantity and quality. The need to train teachers, particularly to provide in-service training, is intensely felt. The pressing issues arise because the Governments are concerned with : (a) development and expansion of school systems; (b) the consequent need to expand the teaching force; (c) the presence of not many suitably qualified teachers in the teaching force and (d) the imperative need to seek solutions to these problems on an urgent basis. In view of innovative and flexible characteristics of distance education, it is not surprising that many countries have turned to this mode of education for remedying the serious deficits in their education systems.

Use of communication technologies in distance education has a potential role in promotion of distance education, particularly for in-service education as teachers are not taken away from the classroom. There is strong theoretical underpinning that distance education is effective and this is duly borne by evidence also. To augment opportunities for teachers' education and training, the application of a variety of media is increasingly made by most developing countries. Printed materials are often used in the form of correspondence courses, which are developed in self-instructional formats that facilitate independent learning. Radio and television broadcasts are also used. Educational technologies including computer-based communication are intensely exploited. While using these technologies, efforts are made to ensure interactivity between students and teachers.

With a view to remedying the deficiency in teacher education, especially on account of providing in-service teachers' training, a number of Open Universities (OUs) and Correspondence Course Institutes (CCIs) of Conventional Universities have launched the programme of teacher education. The relevant details are presented in Table 3 & 4. The following observations may be made :

1. At least four OUs and seven CCIs offer teacher education programmes for in-service teachers and they cater for nearly ten thousand students at B.Ed./M.Ed. levels. Enrolment level in each of the OUs/CCIs is pegged up on the basis of available infrastructure for offer of programmes. With the expansion in facilities, as stipulated by NCTE norms, the size of enrolment could be increased and learning opportunities for a large number of teachers could be extended.

2. The break up of enrolment by different categories - women and rural - shows that some OUs/CCIs enroll more teachers' trainees from deprived groups like rural and women learners. Distance mode thus offers opportunities for participation of such groups, as above, to ensure development of education among the educationally backward sections of the society.

3. The collection of fees, widely differ for B.Ed./M.Ed. programmes across the OUs/CCIs. It ranges between 4 to 15 thousand per student. It is difficult to ascertain the costs of such programmes and the extent to which teacher education programmes are self-financed. In most distance education institutions (DEIs) cost recovery is very high, as compared to conventional institutions. Rather, some DEIs generate considerable surpluses due to significant economies of scale in offer of their programmes. It may therefore be inferred that; (i) teacher education through distance education is largely self-financed; (ii) there is no relationship between the costs of education and fees charged from the students;

and (iii) the NCTE has laid down norms for physical facilities but there is no guidelines for charging fees for different programmes like B.Ed./M.Ed. Do the students get value for money is the question that needs to be examined. To ensure financial sustenance of teacher education programmes, some transparency in costs of education and collection of fees from students would be needed.

4. While almost all the OUs are using self-instructional learning materials and adopting multi-media approaches for effective learning, the CCIs rely mostly on printed materials and provide audio/video facilities for learning. All of them however assure interactivity through face to face and radio counselling for effective learning. In most institutions, pass out rate is however less than 50 per cent, which indicate considerable scope for improvement in students as well as institutional performance.

5. Keeping in view the huge backlog of un-trained teachers over 5 lakhs and the extent of coverage by OUs/CCIs, merely 10 thousand, the existing scenario presents a gloomy picture. Unless the constraints on enrolment of a large number of teachers are relaxed; and to do this, requisite infrastructure is developed for offer of teacher education under distance mode, the task of improving quality of school education will remain a challenging task. It is in this context that Distance Education Council is playing a vital role in cooperation with NCTE for developing norms and guidelines for offer of teacher education and for providing funding support to OUs/CCIs to expand and strengthen infrastructure to cope with the challenge of meeting the demand for competent teachers.

Conclusions and Policy Implications

The challenge of augmenting teacher resources to cope with the increased demand for competent teachers for the expanding school system is indeed a daunting task. The arrangements made under the partnership of the Centre and the States as well as the private sector have not assured adequate supply of teachers. In the quest for solutions to remedying the deficiency in teacher demand, the followings are suggested :

1. Institutional capacity for training of a huge force of un-trained teachers and to extend the facility of re-training on re-current basis of all the teachers is limited. The existing facilities will have to be expanded, innovative and flexible methods will have to be explored and the controls of all sorts will have to be relaxed so as to meet the training requirements of teachers. Limitations of conventional institutions are well known. Some of these are : lack of planning, management and coordination of teacher education

Table-3, Teacher Education Through Distance Mode - Open Universities, 2000-01

Sl No	Name of Institution	Name of Prog.	Target Group	Enrolment						Fees	Delivery system	Pass %
				Total	Male	Female	Rural	Urban				
1.	Indira Gandhi National Open Univ. N. Delhi	B.Ed	In-Service teacher only	2277	932	1345	468	1809	Rs. 10,000/-	<ul style="list-style-type: none"> • SIM, Audio/Video • Face to face programme • Interactive Radio • Counselling • Assignments, Practicals 	-	
2.	Kota Open University, Kota	B.Ed	In-service teacher	----	----	----	----	----	Rs. 13200/-	<ul style="list-style-type: none"> • Print material, Audio/Video, • Face-to-face, • Phone in Radio. 	----	
3.	Karnataka State Open University, Mysore	B.Ed M.Ed.	Graduate Teacher B.Ed. Teacher	N.A. B.Ed. Teacher	----	370	123	----	Rs. 5000/- Rs. 2500/-	<ul style="list-style-type: none"> • Print material, Face-to-Face counselling, Audio/Video. • Interactive Radio • Counselling, Multimedia 	42 51	
4.	YCMOU, Nashik	B.Ed M.Ed	In-service teacher only B.Ed. Teacher	1969	1352	617	304	58	Rs. 15800/- Rs. 4360/-	<ul style="list-style-type: none"> • Print material, Multimedia • Face-to-face counselling, • Audio/Video • Radio/TV • Broadcasting, On line Education • Internet 		

Table-4. Teacher Education Through Distance Mode - Correspondence Course Institutes

Sl No	Name of Institution	Name of Prog.	Target Group	Enrolment				Fees	Delivery system	Pass %	
				Total	Male	Female	Rural				Urban
1.	S.V. University, Tirupati	B.Ed	-	500	330	170	-	-	Rs. 10,000/-	• Print materials, • Telephone counselling	----
2.	Andhra University, Vishakhapatnam	M.Ed	In-service Teacher	-	-	-	-	-	Rs. 6000/-		34
3.	University of Jammu, J&K	B.Ed	-	965	302	663	428	537	Rs. 8125/-	• SIM • Audio • -do-	48
		M.Ed	-	922	312	610	410	512	Rs. 4610/-	• -do-	35
4.	Gujarat Vidyapeeth, Ahmedabad	M.Ed	-	82	63	19	-	-	Rs. 4110/-	• Print materials	-
5.	M.D. University, Rohtak	B.Ed	In-service Teacher	250	147	103	-	-	Rs. 8500/-	• SIM, • On line interaction, • Tutorials, • Assignment.	-
6.	Himachal Pradesh University, Shimla	B.Ed	In-service Teacher only	500	282	218	192	308	Rs. 5355/-	• Print materials	70
		M.Ed.	-do-	250	129	121	102	148	Rs. 2000/-	-do-	70
7.	Mother Teresa Women Univ. Kodiaanal	M.Ed	-	-	-	-	-	-	Rs. 2350/-	• Print materials	83
8.	Tripura Univ. Agartala	B.Ed	-	200	155	44	55	144	Rs. 5000/-	• Print materials, • Seminars • Project assignments	77
9.	Punjab University, Patiala	B.Ed	-	399	163	236	239	160	Rs. 12680/-	• Print materials, • Radio talks, • PCP & assignments • -do-	50
		M.Ed.	-	111	29	82	93	18	Rs. 5910/-		50
10.	Univ. of Kashmir, Kashmir	B.Ed	-	881	371	510	618	163	Rs. 7000/-	• Print materials	-
11.	Berhampur University, Orissa	M.Ed	-	300	226	74	----	----	Rs. 3500/-	• Print Material • Contact Programme	44

Source: Data Base of Distance Education Council IGNOU, 2001

activities between Centre and the States, inadequacy of financial allocation, variation in infrastructure facilities and lack of uniformity in academic standards and recruitment of teachers across the states. These factors impinge upon both the supply of adequate quantity of teachers and maintenance of standards of teachers training.

In this context, distance education offers opportunities to reach the un-reached and cover a large number of eligible teachers for training and re-training. The use of multimedia approaches allows for imparting quality education and training in a cost-effective manner. Besides, structural rigidities that restrict augmentation of training opportunities could be relaxed. And, thus responsiveness of the teachers training institutes to the needs of school system could be improved. The issues pertaining to quantity, quality and deficiency in financial resources could thus be simultaneously addressed provided that teacher education through distance mode is effectively planned.

2. An assessment of teacher education programmes through OUs/CCIs revealed that the relevant activities are unacceptably at low scale. Size of enrolment in each institution is limited to the facilities for providing quality education. Keeping in view the huge demand for training and re-training, the facilities at different study centres of the OUs/CCIs, which are operating in almost every nook and corner of the country, should be expanded. The cost of education should not be high since education under distance mode is largely self-financed. Unlike the conventional system, the teachers' trainees would have access to quality materials prepared by the best teachers trainers in the country. Also, the use of communication technologies would allow for desirable interactivity between teachers and students. It is thus possible to expand the institutional capacity, widen the reach of teacher education, improve and maintain uniform standards. More importantly, the cost of such education can be recovered, which can be ploughed back for re-investment in teacher education.

3. Distance Education Council has, of late, taken a number of initiatives for improving teaching learning resources of OUs/CCIs. In the field of teacher education, the DEC in collaboration with NCTE is reviewing the norms and guidelines for offer of teacher education through distance mode. In doing so, the needs for expanding the opportunities for teachers' training as well as quality assurance are duly taken into considerations. DEC's role is not merely confined to prescribing norms for infrastructure, it also provides funds for development of infrastructure and other teaching - learning resources. The institutions should therefore plan for expansion of facilities, including contractual staff, in relation the requirements for teachers training in the regions of their jurisdictions. And, bid for funds

from DEC. It is feasible to expand the facilities in a phased manner and meet the demand for teacher's training, without sacrificing the quality of education.

4. The potentials of information technologies needs to fully harnessed and exploited for promotion of quality education. All the institutions within a defined region and across the regions need to effectively communicate with one another and improve their networking such that they can identify the areas for collaboration and cooperation. Identification of common concerns, areas and forms of cooperations and collaboration would eventually lead to : (i) developing core competency by each institution and sharing resources; (ii) qualify improvement through sharing of good practices and (iii) reducing duplication of efforts and costs of services. In essence, cost effectiveness of programmes and institutions could be improved.

5. It must be admitted that technical capacity of most OUs/CCIs to plan, finance and manage teacher education is limited. The national apex bodies like NCTE and DEC should therefore make concerted efforts to mobilise resources, plan and develop infrastructure and provide guidance for efficient management and functioning of institutions. Since teacher education is a critical input for effective functioning of school system, the apex bodies and the government cannot be absolve of the responsibility of ensuring adequate supply of competent teachers, for want of which education system has unduly suffered. The institution too are required to articulate their requirements for facilities, explore alternative sources of funding, ensure efficient use of resources and improve academic standards to attract support from the stakeholders. The stakeholders, mainly the apex bodies like DEC, NCTE, the Government institutions, teacher associations, should work together to evolve an acceptable mechanism for accreditation of institutions as well as teachers.

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