Human Resource Planning and Development for Distance Education in India

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With a modest beginning in 1962 the Distance Education system in India has grown into a dynamic and vibrant system of teaching and learning that boasts of 11 Open Universities and more than 80 Distance Education Centres attached to regular universities. Together they offer widest range of programmes from certificate to research degree level in subject areas as diverse as possible - from Science and Technology to Health Care and Management, apart from the Liberal Arts and Commerce. The system of Distance Education has attracted decision makers in all spheres of human resource development, as a means of cost-effective and quick way to train required human resources, upgrade and update the knowledge and skills of the existing workforce. Over the years it has emerged as a democratizing force. Distance Education as a method has been used to train the leaders of the *panchayat*, women in self-help groups, workers in NGOs for participatory planning, and providing skills training to tannery workers.

In the tenth plan document, it is stated "the non-formal system (Open and Distance Learning) accounts for only 13 per cent of the enrolment in higher education. Out of 7.7 million students enrolled in university and colleges, the distance education/ correspondence courses covered only one million students" (India, 2002, p. 56). It further states that during the 10th plan, there will be open universities in states, where none exists. In the 14th Annual Convocation, the Vice-Chancelior of Indira Gandhi National Open University (IGNOU), Prof. H. P. Dikshit (also Chairman of the Distance Education Council) in his report emphasized that by the end of the next five years, the student enrolment in the Distance Education system in India will be 40% of the total enrolment in Higher Education (IGNOU, 2003, p. 4). The system is all poised for a big bang in the coming years. How are we prepared to handle this challenge of growing numbers? Is our system so resilient to accommodate the massive increase in the number of students maintaining quality at the same time? How much preparation in terms of qualified human resources is required to manage such a huge system? An attempt has been made here to analyze and project the possible growth of students in Distance Education, and discuss nature of efforts required to plan and develop the required human resources. The available data has been analyzed with assumption that the present situation has an acceptable limit of quality, and therefore it is also a limitation of this paper. The data of student enrolment in distance education are based on the registration and not on the students on roll.

Student Enrollment in Distance Education: Projection Analysis

In order to estimate the load on the system due to growth in number of students, projection analyses have been done to the available data on students' enrolment in higher education in general and distance education in particular. Table 1 shows the student enrolment in higher education as available from the University Grants Commission (UGC, 2003) and the Distance Education Council (DEC). The available data on enrolment in higher education was subjected to a projection analysis, which follows a quardratic model (Fig. 1). With the available data of enrolment in Distance Education from 1995, the projection analysis was performed again as higher education with Distance Education enrolment, which follows a polynomial model (Fig. 2). Based on these two models, the possible enrolments for higher education and distance education have been projected up to 2010. This mathematical projection has shown increased possible enrolments in higher education from earlier study by Parhar (2002). It also shows that the enrolment shall probably be around 27.5 per cent of the higher education or 21.5 percent of the higher education (including Distance Education) in the year 2007 at the end of the tenth five-year plan (Table 2). This is much below the 40 per cent increase expected, and as such the projection analysis is about the half of the expectations of the authorities and policy makers. As the projection analysis is based on the available data from the existing institutions, there is

Table 1 : Enrolment Projection in Higher and Distance Education

Year	Actual Enrolment in HE (a)	Projected Enrolment in HE* (b)	Actual enrolment in HE with DE (c)	Projected Enrolment in HE with DE** (d)	Projected Enrolment in DE alone (d-b)
1950-51	173696				
1960-61	556559				
1970-71	1953700				
1980-81	2752437				
1990-91	4924868				
1995-96	6574005		7438452		864447
1996-97	6842598		7757042		914444
1997-98	7260418		8391847		1131429
1998-99	7705520		8976504		1270984
1999-2000	8050607		9502290		1451683
2000-2001	8399443		9967158		1567715
2001-2002		8768780		10472813	1704033
2002-2003		9211284		11128078	1916794
2003-2004		9671955		11816735	2144780
2004-2005		10151237		12539726	2388489
2005-2006		10649574***		13297991	2648417
2006-2007		11167409		14092475	2925066
2007-2008		11705187		14924123	3218936
2008-2009		12263349		15793881	3530531
2009-2010		12842342		16702697	3860355
2010-2011		13442607		17651520	4208912

* Projection based on Quardratic Fit: $y = a+bx+cx^2$

** Projection based on 4th Degree Polynomial Fit: $y = a+bx+cx^2+dx^3+ex^4$

*** Earlier study by Madhu Parhar (2002) projected the enrolment at 9525770

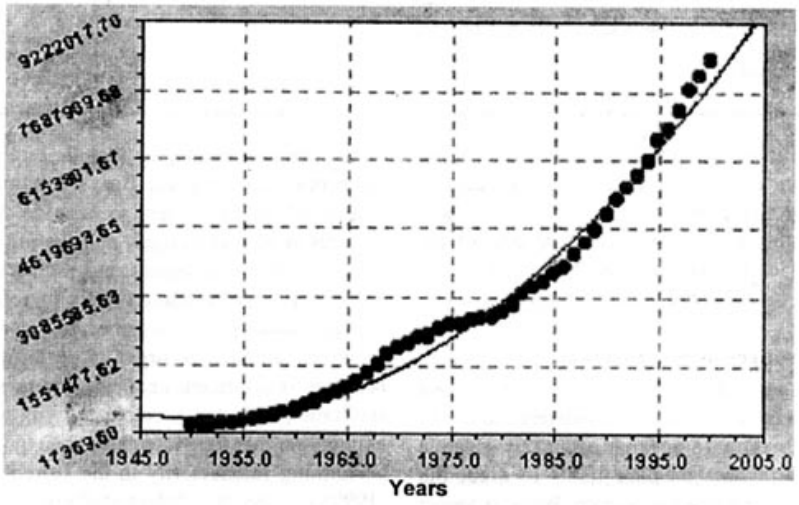

Fig. 1 : Quardratic Fit Model for Enrolment in Higher Education

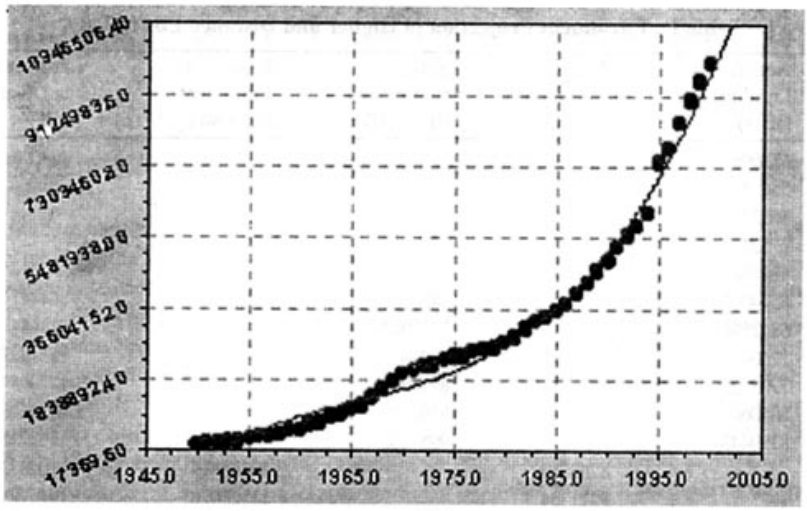

Fig. 2 : Polynomial Fit Model for Enrolment in Higher Education and Distance Education

Table-2: Growth of Enrolment in Distance Education: Summary

	Number	Projected Enrolment in DE in 2007			
		As%of enrolment in in HE	As % of enrolment in HE with DE	As 40% enrolment of HE	As 40% enrolment of HE with DE
Projected Enrolment in HE	11705187				
Projected Enrolment in HE with DE	14924123				
Projected Enrolment in DE alone	3218936	27.5	21.5	4682075	5969649

every possibility of this projection being rejected in reality, as the number of open universities will definitely grow in the 10th plan period. This is actually the basis of the discussion in the next part of the paper that tries to estimate the human resource requirements in Distance Education in India in 2007.

Human Resource Requirements

With the estimated increase in student enrolment (Table 2), the present system of Distance Education has to plan for how to accommodate this gigantic enrolment, and thus prepare itself to meet the challenges, before it actually happen. Without proper planning, it would be impossible for the system to manage the huge influx of students. Of course one of the planning strategies include establishment of more open universities. But, the number of staff employed in the system to provide the required services is also important, and therefore, a human resource (HR) requirement analysis has been done in Table 3. Human resource is very important, even if we have more open universities, to accommodate the growing numbers. In order to perform the human resource requirement analysis, the present student staff ratio (Table 4) was calculated with an underlying assumption that the systems in open universities are performing satisfactorily in the current ratio. Gaba (1999) analyzed the student-staff ratio in IGNOU and National Open School as 1:140 and 1:712 respectively. In this paper an attempt has been made to go beyond

Table 3 : Estimated Number of Distance Education Functionaries Required in 2007

	Staff Projection						
	As per this paper	With 50% technology impact	As 40% of HE	With 50% technology impact	As 40% of HE with DE	With 50% technology impact	Assumed Ratio
Teachers	3219	1609	4682	2341	5970	2885	1:1000
Academic Counsellor	160947	80473	234104	117052	298482	149241	1:20
Non-Academic Staff	12875	6437	18728	9364	23879	11939	1:250

Table 4 : Staff Ratio in 2000-2001

	Number of students	No. of Teachers/ Staff	Ratio
Higher Education*	8399443	411628	1:20
Distance Education**	618295		
Teachers		631	1:976
Academic Counsellors		38026	1:16
Non-Academic Staff		2396	1:258

* Based on UGC (2003)
** Based on DEC (2001)

this and identify the staff in three different categories - Teachers, Academic Counsellors, and Non-Academic Staff. Based on the present ratios, the teacher: student, academic counselor: student and non-academic staff: student ratios were adjusted to be as 1:1000, 1:20 and 1:250 respectively for the requirement analysis. However, the requirement analysis is also subjected to correction due to impact of technology in the Distance Education practices. And, thus a 50 per cent technology impact factor has been introduced (though this is the author's personal bias towards technology) in calculating the requirement analysis. This also makes the requirement more robust, and a challenging must to perform at the optimum level. Analysis as in Table 3 reveals a great demand for trained human resource to manage and operate the Distance Education system in India. At the lowest estimate, there will be need of about 1000 more teachers in the universities, 50,000 more academic counselors, and 4000 more non-academic staff.

Training of Distance Education Personnel

Identification of training needs, design of appropriate training, development of appropriate training resources, and delivery of training in the most appropriate ways for the preparation of human resources required for the Distance Education system have always been a matter of great concern. It has received much attention from time to time. In the 1990s, the Commonwealth of Learning organized a round table of Distance Educators to discuss and deliberate on these issues. The round table identified six major areas for training: General Orientation to Distance Education; Policy, Planning and Management of Distance Education; Instructional Design and Course Development; Technology in Distance Education; Student Support Services; and Research and Evaluation. As training strategies, the round table suggested, workshops, distance learning, training attachments (COL, 1990). In India, the Staff Training and Research Institute of Distance Education (STRIDE) at IGNOU has been offering two academic programmes on Distance Education - Post Graduate Diploma in Distance Education (PGDDE) and Master of Arts in Distance Education (MADE) to develop required human resources (Ramanujam, 1996). The number of successful candidates in these programmes

over the years is given in Table 5. Most of these 2000 trained personnel are already working in the system. Apart from these academic programmes, a large number of short-term workshops are organized by STRIDE to orient, train, update and upgrade various categories of personnel working in Distance Education system in India. Essentially, the approach is 'in-service' training. Even the full-fledged academic diplomas available are also considered as part of the 'in-service' training strategy. Because of this approach, recruitments in Distance Education system are done from people who have little understanding of the system in general. However, there is a growing realization that the system demands human resources with different skill sets - those who are able to develop self-learning materials in print, audio, video, and other multimedia formats; provide personalized and group tutoring to learners; and design, develop and maintain courses and programmes in general. There are also many other skills like delivery, monitoring and evaluation of programmes, which are not essentially expected from teachers/staff in higher education.

Table 5 : Number of Successful Distance Education Diploma Holders

Year	DDE/PGDDE	MADE
2003	118	31
2002	119	10
2001	86	24
2000	69	30
1999	139	66
1998	101	22
1997	28	14
1996	82	43
1995	86	75
1994	94	
1993	102	
1992	141	
1991	270	
1990	217	
Total	1652	315

The 'in-service' training approach in the present Distance Education system needs serious rethinking. Many a time, people join the Distance Education system without having the inclination and attitudes appropriate to it. In such a situation any amount of 'in-service' training makes no difference in their approaches. These groups of teachers are actually more concerned about their subject knowledge and erosion of their academic powers and authority through the approaches of Distance Education. It has been observed that such motions are due to a false perception of accepting a specific format of self-learning material supplied by IGNOU as the only way to design instructions. Many teachers feel suffocated to fall within this narrow lane to knowledge dissemination. But, the system of Distance Education is all about making knowledge accessible to people in a way that suits them the most, and therefore the method and approaches are as important as the content. It is the design of instructional content delivered through different formats and media that make all the difference for the learner in the Distance Education system. And thus, to have the right kind of people, who understands the system and its requirements prior to joining the system would be much desirable. There are other arguments in favour of 'pre-service' training in Distance Education, as Koul (1990) points out "pre-service training implies:

- that distance education is a discipline by itself and needs to be promoted in its own right;
- that there is an obvious and attractive market for diploma or degree holders; that is the society in general and the academic would in particular see distance education as a specialization, value the specialist inputs and create positions for specialists to use their expertise purposefully;
- that such a market is going to grow, diversify and sustain itself; and
- that there are people who are convinced that a career in distance education is not only possible but worth accepting" (p. 31).

The above enthusiastic elaboration of 1990s is very much valid today, as the present requirement analysis of trained Distance Education personnel shows. However, at the same time making the presently available academic programmes a 'pre-service' entry

requirement to Distance Education system may not result in meeting the actual demands of qualified practitioners in Distance Education. Therefore, it is necessary to have short-term certificate programmes for specific skills or in specialized areas of operations of Distance Education. Some of the areas that can be developed as potential training-cum-certificate programme of about 400 hours of study and practice include the following:

- Academic Counselling and Tutoring (*compulsory* for all academic counselors in Distance Education)
- Distance Learning Administration and Management (*compulsory* for all non-academic staff from Section Officers and above)
- Instructional Design and Development (*compulsory* for all who wants to be a teacher in Distance Education institutions)
- Learner Support Services (*compulsory* for Distance Education support staff primarily at the regional and study centre level)
- Multimedia and E-Learning
- Electronic Media in Distance Education
- Quality Assurance in Distance Education
- Research and Evaluation

There are already materials available for most of these areas, and requires only appropriate packaging in a variety of formats (print, multimedia, audio, video, etc.) and strategies (including self-learning and short-term face-to-face training programmes). Evaluation of the learning outcomes and certification should be a part of the strategy to develop appropriate qualified human resources required to manage and run the system in the future.

Conclusion

In this paper a case has been made to rethink about the planning and development of human resources required in Distance Education by the end of the 10th five-year plan. The system is all poised for a big leap, and it is at this stage decision makers need to discuss about the strategies to develop the Distance Education system in a more sustainable way. Recognizing that qualified human resource is key to sustainable development of any system would result in a system that provides better qualitative outputs and outcomes at a time when the resilience of the system is subjected to test. Not giving thoughts to the needs of the system in terms of the human resources will bring the system more criticisms in implementation than laurels that the theoretical principles of Distance Education will boast of. As such there is every danger in "Great Plans with little Planning"!

References

1. COL. 1990. *Report of a Round Table on Training Distance Educators*, Commonwealth of Learning: Vancouver.
2. DEC. 2001. *Open Universities in India*, DEC/IGNOU: New Delhi.
3. Gaba, A. K. 1999. 'Learner satisfaction and management of distance learning system in India', *Paper Presented at the 29th Annual conference of AIAET held at Guwahati from 29-31 January 1999.*
4. IGNOU. 2003. *Vice Chancellor's Report, 2003:14th Convocation*, p. 14.
5. India, Planning Commission 2002. Tenth Five-Year Plan 2002-2007 , Vol.II: Sectoral Policies and Programmes, p.56 Available online at *http://planningcommission.nic.in/plans/planrel/fiveyr/10th/volume2/v2_ch2_5.pdf* [Accessed on 01/09/2003].
6. Koul, B. N. 1990. 'Instructional design and course development: A training perspective', In *Perspective on Distance Education: Report of a Round Table on Training Distance Educators* convened by The Commonwealth of Learning in Vancouver, April 2-6, 1990.
7. Parhar, M. 2002. Enrolment Projection in Higher Education, *University News*, 40 (27): 1-4.
8. Ramanujam, P. R. 1996. The Role and contribution of STRIDE in the development of human resources for distance/open learning, *Indian Journal of Open Learning*, 5 (2): 70-84.
9. UGC 2003 *University Developments in India*, UGC: New Delhi. ❑