

The Role of Distance Education in the Human Resource Development of India

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Abstract: The objective of this paper is to analyze the role of distance education in the human resource development (HRD) of India. The paper has been divided into three parts. First, part discusses the relationship between distance education and human resource development in general and conceptual context in particular. Indian rank in HRD corresponding to other countries has also been highlighted in this part. Second part highlighted, how distance education helped to learners to bring changes economically in their personal life after getting degree from distance education institution. The third and last part discusses the futuristic model of distance training for on the job learners.

Distance education can play a crucial role in the economic development of a country by meeting human resources as per its needs. This system can cater to the requirement to those who are on the job. Their knowledge can be updated through continuing education programmes. Due to the low level of education among the labor force in developing countries like India, its work efficiency and productivity is also low particularly in primary sector of the economy. The quality of the labor force is a very important consideration, when we look at the human resource development in a country. This is influenced by the development of education and training and the availability of professionals and facilities like doctors, teachers, hospitals, schools and colleges etc. In terms of quantity, this is very low in comparison to those who complete secondary and higher secondary education. Besides quantitative expansion of tertiary and professional education in the country, one of the important tasks of distance education has been to upgrade the quality of both instruction and output at the secondary and higher stages of education. Though, it is not an easy task through formal system alone.

Research evidences show that continuing education can improve work efficiency and productivity, and, thereby, contribute to economic growth. *Both work efficiency and productivity, besides a certain required level of education, depend upon training and orientation of human resource. These types of activities would include on-the-job training, upgrading courses, awareness courses etc.,* which are possible easily through distance education only. On the other hand, this system can raise the employment opportunities in many ways, as it helps develop the necessary skills, attitude and motivation to match opportunities to fresh job seekers as well as self-employment.

Nature of Training and Education in the Workplace

- Demand for skilled labour has risen significantly as a result of globalization and changes in technology and the organization of work. The process of skill development in the informal sector in a developing countries is more important since formal training institutions do not have the capacity to train all those who want to acquire skills, and few of those who want to acquire skills have the means to afford formal training.
- International labour organisation estimates, over the next ten years the growth rate of the world's labour force will slow down, there will be still some 460 million new, young jobseekers. Only 3% of them will be in all parts of Europe and North America. Two-thirds will be in Asia.
- The ability to learn, to transform existing knowledge into new knowledge, is a source of competitive advantage of increasing significance. In such enterprises, daily learning has become an integral part of the job. Part of such learning relies on the exchange of tacit knowledge among employees.

India's scenario

Since independence, there has been significant progress in human development in the country as reflected in broad indicators such as the improvements registered in educational attainments, health coverage, and in provision of basic social infrastructure. India ranks 115th out of 162 countries in terms of the UNDP's Human Development Index (HDI) and is classified in the group Medium Human Development with HDI of 0.571 in 2001. India's comparative position on Human and Gender Development is presented below. Though the overall index on gender related development has improved in 2001 as compared to 1992, it is still low in comparison with the country's human development levels (GOI, 2002).

The Table 1 indicates that India requires alternative strategy to increase its HRD ranks. Distance education can influence the quality of human resources in the areas of health, nutrition, education and ICT. This system can spread necessary awareness among those whom such awareness might help to large number of uneducated people, particularly women. In the process, distance education will call for interaction among people belonging to different areas of operation such as teachers, technologists, learners, administrators and other functionaries. This will enhance the possibilities of interfacing education with other aspects of social life.

Table 1: India's global position on human and gender development

Country	Human Development Index		Gender Development Index	
	1992	2001	1992	2001
Norway	0.933	0.939	0.911	0.937
Australia	0.927	0.936	0.901	0.935
Sri Lanka	0.704	0.735	0.660	0.732
China	0.594	0.718	0.578	0.715
Indonesia	0.637	0.677	0.591	0.671
India	0.439	0.571	0.401	0.533
Pakistan	0.483	0.498	0.360	0.466
Bangladesh	0.364	0.470	0.334	0.459

Source: Government of India (2002), Economic Survey, 2001-02.

Role of Indira Gandhi National Open University in Human Resource Development of India

Indira Gandhi National Open University (IGNOU) established by an Act of Parliament in 1985 offers programmes through open and distance education mode. It offers 72 certificate, diploma Bachelors' and Master Degree level programmes. At present, IGNOU have 46 Regional Centers and 882 Study Centers managed or supported by IGNOU. In addition there are 96 Distance Learning Facilitators and 79 Work Centers. The academic support is provided by more than 22000 part-time academic counsellors, who are mostly senior teachers in the conventional institutions. IGNOU has also operationalised 5 Regional Centers (RCs) and 17 Study Centers (SCs) for the Indian Army, 4 Centers for the NAVY and 8 Regional Centers for the AIR FORCE personnel (VCR-2002).

The university has established Regional Computer Labs/Tele-Learning Centres at 14 Regional Centres to serve Tele-Learning Centres of IGNOU. These TLCs are being managed by IGNOU and provide a total digital learning environment to ADIT and BIT students. The university has also engaged private entrepreneurs for providing effective services to its learners. The Student Services Centre (SSC) at IGNOU Headquarters is a Computer Networked Centre for all Student Support Services from HQs, which includes activities like, providing information, attending to general queries, grievance redressal, submission of examination forms and sale of prospectus.

Learners Profile

At present, around 800,000 students are on rolls in IGNOU. This year, a total 298,987 students have been enrolled for different programmes (VCR, 2002). Of the total enrolment, 85.20% are from urban areas and rest of them belongs to rural areas. About 50% are unemployed and 32.67% are employed. Rest of the learners did not inform their status (Chaudhry, N and Shanker, G. 2001)

Research evidence

The author of this article conducted a study on 'Distance Education and Job Market of IGNOU Graduates' during 1999. The study examines to what extent to which distance education programmes helped the development of human resource development in India. Some of the objectives of the study were intended to:

- utilisation IGNOU degree in job market;
- examine how far IGNOU programmes facilitates learners job performance and
- what extent IGNOU degree was necessary for obtaining job.

Sample Size Methodology

Survey research method was followed for the conduct of the study. The reference period of the study was from 1992 to 1995.

Data Collection

Data for the study were collected from two sources:

- (a) published records;
- (b) questionnaire administrated to sample learners.

Tools

The structured questionnaire was administrated on BA/B.Com students. A sample of 1755 successful graduates who have successfully completed their degree during June 1992 to December 1995 was selected.

Findings

The study which was conducted to examine the extent of IGNOU programmes help in the development of human resources based on 416 (23.7%) respondents. Analysis of data related to the objectives of the study led to the following findings.

Status of respondents before joining IGNOU

- ◆ A large percentage (56.62%) were doing regular job and 11.03% were studying in formal schools and colleges. Some of them (9.96%) were doing both pat time job

as well as doing their studies. 12.82% of them were unemployed, 6.76% were self employed and 2.81% did not respond to this item.

Learner's objectives to enroll with IGNOU programmes and utilization of degree

- ◆ A large percentage of the respondents (43.42%) informed that their objective to enroll with IGNOU was to continue education while 13.52% who responded to get job. 10.32% respondents informed that their objectives were to get promotion, while 5.69% said their objective was social reasons. Rest of the respondents did not specify their objectives. Most of the respondents informed that their objectives were fulfilled.

Learner's status after completion of programme from IGNOU

- ◆ *Of the 56.62% respondents who were on the job, 29.9% joined further education and **15.61% got promotion**.* Rest of the respondents did not respond to this item.
- ◆ *11.05% respondents who were regular students in formal institutions, most of them (48.0%) joined formal institutions vis a vis dual institutions for post-graduate programmes. 20% of them got job and 17.0% were self-employed.*
- ◆ *Of the 9.85% respondents who were doing part time job, 39.02% of them joined post-graduate programmes, 24.39% got job and rest of them did not specify their purpose of utilization.*
- ◆ *Among 12.9% who were unemployed, 50.0% of them joined further education programme, 22.2% get job and 29.6% did not specify their purpose of utilization.*
- ◆ *Those who were self-employed (6.73%), 25.0% joined further education and 14.2% got job. 14.2% students were self-employed and 28.6 respondents utilized their degree for other purpose which they have not specified.*

To what extent degree from IGNOU was necessary to get job.

Those respondents who were unemployed and doing part time job before joining IGNOU programmes and got regular job and promotion informed that:

- ◆ to become graduate was necessary to get job and promotion in their respective enterprises;
- ◆ it was one of the prerequisite for the job.

To what extent IGNOU degree facilitates job performance

- ◆ Most of the respondents (48.40%) informed that it helped a great deal to facilitate job performance;
- ◆ Few respondents (21.0%) informed that it helped partially.

Learner's views

- ◆ One of the respondents informed that the curriculum of various IGNOU programmes was relevant and enabled him to acquire skills in their concerned fields.
- ◆ Another respondents informed that the study materials of IGNOU were high standards in terms of quality. The foundation course having positive impact on skill development because the contents of the study materials were relevant to their jobs.

Success stories

- ◆ Rajinder Kumar from Jhajjar (Haryana) informed that he was Assistant Teacher (JBT) in Government School. After completion of B.Ed degree from IGNOU, he got Post-Graduate Teacher position.
- ◆ Ravi Nair from Mumbai informed that IGNOU degree is helpful for his self-development and he can now communicate in English as well.
- ◆ Surindra Devi from Himachal Pradesh informed that degree from IGNOU helped in her personality development and in gaining knowledge.
- ◆ One of the respondents informed that degree from IGNOU helped him to become self-employed. Now he is running a magazine called 'Yug Manas'

It has been established from the above evidences that distance education helped to everyone. It helped to unemployed, self-employed and employed learners to bring changes economically in their personal life.

There is possibility of relationship between training and solving of business problem. Training has to do with the target groups acquiring knowledge, skills, and attitudes that are useful to them immediately to improve performance on the job. On the other hand, education deals with the acquisition of knowledge, skills, and attitudes too, but not necessary for immediate improvement of performance on the job (Zane L. Berge, 2001). Distance training is also cost-effective as comparison to traditional classroom training as shown in the following Table 1. However, Constantine Osiakwan and David Wright's (2001) study shows that total cost of Remote Access Distance Training (RADL) is higher than the total cost of classroom-based training (CBT). But, the profits from RADL are higher than the profits from CBT, since it is possible to charge students a higher price for RADL than the CBT. RADL is a distance training systems, in which students study at their workstations, which are connected to a training center via audio and computer links.

Table 1: Comparison of Distance Training Costs V/S Traditional Classroom Training

Distance Training			Traditional Training		
Distance training source	Average costs per participant In US \$	Class duration	Class room presenter	Average costs per participants in US \$	Class room duration
Tele learning	30	6 hours	Senior Manager (1)	40	8 hours
Online	10	6 hours	Mid Career Instruction (2)	55	8 hours
Self Paced Compute based	12.21	6 hours	Junior Instructor	20	8 hours

Note: Actually delivery cost does not include course development cost.

Source: Jo. L Longnecker (2001) Attracting, training and instructors for distance learning at the US general account office, Zane L. Berge (eds.) Sustain Distance Training, San Francisco: Jossey-Bass.

It has been proved from the studies conducted by Zane L. Berge (2001) and Constantine Osiakwan and David Wright's (2001) that distance training is cost-effective and profit generating.

Future Prospects

But this system could not meet the needs of those employers (public and private sectors) who have demanded skilled labor due to globalization and changes in technology in their respective organization and those who require daily learning, which has become integral part of their job performance.

Target group

Due to increasing diversification of the economy together with acceleration in economic growth has resulted in structural changes in the nature of the job market. As per the 55th Round (July 1999-June-2000) of the Survey on Employment conducted by the National Sample Survey Organisation (NSSO) reveal that employment in absolute numbers was 397 million (in both organised and unorganised sectors). Of the total 397 million 28.11 million i.e. 7 percent employment was in organised sector.

Trends in organised sector employment reveal that employment in this sector has been declining due to slowing down in employment in public sector. This could be attributed to restructuring programmes of the public sector, and the ban on recruitment in many

State Departments/Institutions as part of the ‘economic drive’ to reduce government expenditure. The annual growth rate of employment has been increased in private sectors since 1995. However, this growth rate in private sector employment did not effect the slow down in public sector employment since the private sector share of employment in the organised sector was only one third. Therefore, the growth rate in organised sector employment is now dependent on employment growth in the private sector.

Manpower in the Public Sector By Branch

India’s employment in the public sector by industry has been presented in the following Table 2.

Table 2: Employment in the public sector by Industry

Branch	2000 (In Million)
Central Government	3.27
State Government	7.46
Quasi-Government	6.32
Local Bodies	2.25
Total-1 (public sector)	19.31
Private Sector	8.70
Total –2 (organised sector)	28.11
Employment in un-organised sector)	368.89
Grant Total	397

Source: Government of India (2001-2002) Economic Survey of India.

The above table 2 prevails that the bulk of manpower in organised sector consists in State and Quasi Government sector. Among the total labour force, women constituted about 17.2% of the organised sector (public and private sector). Among rural women workers, a majority of them are employed in agriculture as labourers and cultivators. In the urban areas, women workers are primarily employed in unorganised sectors such as household industries, petty traders and services, building and construction etc.

Table 3:Growth of Employment by Sectors

Industry	% of employed workers
Agriculture	59.8
Mining and Quarrying	0.6

Manufacturing	12.1
Electricity Gas etc.	0.3
Construction	4.4
Trade	9.4
Transport, Storage & Commn	3.7
Financial Service	1.3
Community Social & Pers. Services	8.4
Total Employment	100.0

There is a need for curriculum design in all the above industries. If we think to train all employees for their daily knowledge upgradation and the process of skill development, the existing class room training methodology do not have the capacity to train all of them. Department of Personnel Training (DOPT), Government of India (GOI) had already initiated strategy in public sector. The Federation of Indian Chambers of Commerce and Industry (FICCI) recently organized a seminar on 'E-learning: Transforming corporate workshops', as an effort towards creating awareness on the benefits of e-learning in corporate environment. E-learning has emerged as a successful tool to impart education and training in a need based manner using various forms of media.

IGNOU-DOPT Initiative

The DOPT, Government of India has planned for the use of distance education methodology in a large scale to train the trainers. Three batch of the trainers have been trained in IGNOU (India) and UKOU (U.K) on designing self-learning material, audio/video, interactive multimedia on macro media director and online training through Web city. These package are further developing training strategies, with the support received from State Government and DOPT, Government of India, for wider State level and National level implementation as respective areas of specialisation.

Need for Strategic Planning

There is a need for strategic planning for the futuristic model.

- There should be planning board/committee. The members should be represented from Center and State Governments (public sector) and from FICCI and CII (private sector).
- Identify the goal of distance training programmes
- Conduct an organizational analysis:
 - to find out opportunity for training and education

- database of participants
- to find out the basic infrastructure
- provide accountability for the use of training resources

➤ Implementation and Evaluation

Perspective Model

There is a need for the hour to have effective networking between all the existing online resources. This does not require additional resources but proper and effective utilization of the existing resources. For instance: Government of India had already initiated some projects in this direction. Project Initiated by the Department of Information Technology, Ministry of Communication and Information Technology, Government of India are:

1. National Resource Centre for Online Learning NCST, Mumbai-URL: www.ncst.ernet.in/vidyakash
2. Virtual Campus Initiative for IGNOU One-year PG Diploma in IT-URL: www.ignou.ac.in
3. Developing Web Based Digitised Collection for Distance & Continuing Education in IT-A Demonstrative Project on Internet Based Online Interactive Courseware IIT Delhi-URL:www.iitd.ac.in/courses
4. Design and Development of Internet Enabled Multimedia Courseware for a Virtual University, Pilani-URL:bits-pilani.ac.in
5. Development of Interactive Multimedia Information Services over a Hybrid Internet and Broadcast Digital TV networks IIT Kanpur, [URL:http://www.iitk.ernet.in](http://www.iitk.ernet.in)
6. Developing Web Based Intelligent Interactive Tutoring (webIIT) IIT Delhi-URL:www.iitd.a.c.in/courses
7. Design and Development of Component Based Functionality in E-learning tools C-Dac, Hyderabad [URL:www.cdach.ernet.in](http://www.cdach.ernet.in)
8. Multimodel Digital Distance Education for IT & Other Critical Technologies, School of Educational Technology Jadavput University, Kolkota.- [URL:www.jadavpur.edu](http://www.jadavpur.edu)

Suggestion and recommendation

- ◆ The existing RCs and SCs and State Open Universities (SOUs) and Correspondence Institutions (CCIs) should be used for support centers. Training facilities should be provided to these centers.
- ◆ STRIDE should design and develop training package to train staff and faculty of these institutions. This will uplift the level of productivity.
- ◆ The training curriculum should be designed as per needs. The ICT should be used in to make optimum use of distance training programmes. The basic information about the curriculum/programmes should be available on Web. For instance: www.multimediatraining.com.

- ◆ Possibilities for in-service training through distance mode should be explored for employees who are working in different occupation.
- ◆ STRIDE should develop programmes for training and development of all the DTIs staff through Internet. Web-based training system can be developed which will provide interactivity among different students of the programme from different locations in the world. For instance, computer science and mathematics <http://java.sun.com/applets>. Virtual Practical Counselling can be conducted by the creation of Virtual Computer Labs. For instance: www.as400online.com/as400vcl.htm. (offer virtual As 400 Lab). Teleconferencing session can be webcast through the website for all the students (Suresh, 2002).

Conclusion

Distance education can help in human resource development has been proved through the study conducted by the author. This system with ICT helped to acquire skill and enrich professional development in their concerned areas. Rowntree (1998) comments that “Most of the research over the last twenty years or so suggests that media do not differ greatly in their potential for helping people to learn. What makes a difference is not the medium itself but how well it is used and how keen the learners are to hear. Nevertheless, even if most media can do most things reasonably well, each does some things better than others”. The planning of distance education seriously takes into account the human resource needs of the country on the one hand, and tries to base the design and development of educational programmes on the other hand. Besides, provisions in support of the principles of lifelong education, training and updating (both in-service and pre-service) are made part of the continuing education programmes, and should be considered as regular activities of a distance teaching institution.

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