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Virtual Educatıon in a Developing Nation (INDIA): Experiences of Ignou

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ABSTRACT

IGNOU came into existence in the year 1985 with a mandate to democratize higher education by a diversity of means using traditional and new technologies. The university has achieved many milestones in a short span of 15 years existence in terms of courses and programmes introduced, instructional technologies adopted and student services offered. Above all it has enrolled a large number of students achieving a 'mega open university' status. Since 1998 IGNOU has introduced virtual education, with a few academic programmes pertaining to Computer and Information Sciences in two phases. In order to assess the 'Virtual Campus' initiative a study was initiated by the researchers in the year 2000. The findings of which have been discussed in this paper. Also background information about the trends in the development and delivery of academic programmes through Virtual Campus at IGNOU have been explained.

Keywords: Virtual education, Devloing nation,Distance Education, India, Open Learning

INTRODUCTION

IGNOU was established as a National Open University in 1985 blazing a new trail in higher education. The launching of this university is the culmination of the concern and desire to democratize higher education to large segments of population, specially the disadvantaged groups and individuals and bring higher education to the doorsteps of all those who look for it and to maintain standards in education by offering a wide variety of academic programmes using innovative technology and diversity of means with uniform curriculum throughout the country.

PART: 1
TRENDS N THE DEVELOPMENT AND DELIVERY OF ACADEMIC PROGRAMMES

Academic Programmes and Student Registration

The university is offering 60 academic programmes with more than 620 courses (in 2001) in various disciplines leading to degree, diplomas and certificates. IGNOU has been introduced a wide variety of programmes in the areas of Humanities, Social Sciences, and Sciences. In addition, it has also introduced programmes in Women Studies, Rural development, Health Sciences, Education and Distance Education. Professional programmes such as Management, Computer, Engineering, Health and Nursing and Library Sciences have also been added into its fold. Large number of non-formal programmes in the areas of Women Studies, Construction, Tannery, Computer Literacy, Disaster Management, Participatory Forestry Management, etc has been added. The university is giving more and more emphasis to non-formal programmes keeping in view the large number of unskilled workers engaged in different sectors across the country. Essentially the focus is on people who have missed their education early in life, economically, socially and physically disadvantaged groups, rural youth, women and those living in backward, hilly and remote areas.

Initial enrolment in 1987 was 4500 and its current annual intake is 298 thousand students, with more than 700 thousand on its roll (IGNOU, 2000). Thus IGNOU has emerged as one of the mega open universities in the world. The pattern of academic programmes and student enrolment reveals that there is a gradual shift from traditional programmes and diplomas to professional and vocational degrees and diplomas. For example, majority of IGNOU students were enrolled for Bachelor Degree programmes (B.A., B.Com.,) whose share in the total enrolment was around 75% in 1989-90 which has come down to 24% in 1996-97. Contrary to this, the enrolment in Computer and Management programmes has increased over a period of time and are accounting for 63% of the total enrolment in 1996-97. This is an indication of the gradual shift from the regular undergraduate courses to the professional/vocational courses such as Management and computer programmes due to compulsion in the job market. (Manjulika and Reddy, 1996). In the year 2000 the student enrolment in computer and management degree level programmes put together was 93,123 (47.3%) excluding 28,960 certificate level (CIC) students (14.7%) (IGNOU, 2000).

Shift in the Instructional System

IGNOU has adopted a multimedia approach to instruction since its inception. The learning (instruction) package consists of print (self-learning materials), audios and video programmes, assignments. In some programmes practical manuals (for practical and lab based courses) and project guidelines are also supplied. In addition, the learner is supported in various ways through study centres and other centres in the form of face to face counseling sessions, practicals and hands on experience through laboratories/skill based centres (through specialised institutions).

To give more weightage to the component of interactivity in the learning process, IGNOU had introduced interactive radio counselling, interactive tele-counselling and tele-conference, voice mail, email and internet based learning. In addition IGNOU uses television broadcasts (limited) and radio and cable television from few places. Even the printed self-learning materials are designed to be interactive. The style is that of guided didactic conversation, with the teacher in-built in the text.

Shift in the Delivery Mechanism

The university began supporting learners through its Study Centres (ground level) and Regional Centre (Middle level) under the Regional Services (Hqrs.). As the enrolment increased, programmes and courses multiplied and specialised nature of facilities required got diversified. Hence, Study Centre approach alone could not meet demands of scattered students across the vast nation. It was felt, therefore, necessary to rationalize and diversity existing centers and add new channels of delivery to reach out all sections and parts of the country. Today (December, 2000) IGNOU has established around 600 study centres and programme study centers, 40 work centers, 11 partner institutions, 17 army study centers and 27 distance learning facilitators. These centers are established under 35 regular regional centers (established by IGNOU) including 12 recognised regional centers (established by Army and Navy under the Ministry of Defence).

PART: 2
VIRTUAL CAMPUS (VC) AT IGNOU

The University has introduced 3 programmes through virtual campus concept in July 1998 for the first time under the pilot project. They are Certificate in Computing (CIC), Bachelor Degree in Computer Application (BCA), and Master Degree in Computer Application. These three programmes were continued till June 1999, thus taking a few thousand of student in three batches between 1998 to 1999 providing course material through IGNOU websites and practicals at designated "Internet Access Points (more than 250 IAPs) across the country for practicals during 1998 & 1999. However, the University could not continue these programmes due to non-availability of adequate access points to Internet and PCs in the interiors and was thus unable to cope up with huge enrolments in providing web based support and other support required. Hence, the University gave an option (in the year 1999)

to all these students to join in the regular stream called as "Integrated Mode", Thus temporarily shifting students to Regular stream. Today around 2867 students in MCA and 1021 students in BCA are still in the Internet mode as on 31st December, 2000 despite various issues these students encountered. Many of these students are urban based, working professionals and may be having access to Internet and PC either at their working places/home/cyber café.

In the second phase keeping in view the changing requirements of the Information Technology (IT) sector, IGNOU has launched the Bachelor in Information Technology (BIT) and Advanced Diploma in Information Technology (ADIT) in the month of September 1999 under the Virtual Campus initiative.

Students registered for BIT and ADIT		
Programme	**2000**	**2001**
BIT	**1266**	**1790**
ADIT	**670**	**638**

Teaching Learning Methodology

The components of teaching methods include: Live satellite based Teleconferencing lecturers (1 hour a week) through Gyan Darshan; Recorded video lectures; 2-1/2 hour lab facility per day. 5 days a week (at TLC); 2-1/2 hour duration, two tutorial sessions per week (at TLC); Internet Learning Resources by Internet Browsing; Online Interactive chat: with peer group, with faculty, with external experts and IGNOU web site (for course materials and assignments)

The teacher takes online counseling of a course by hosting on the web, materials for about a week's study and informing the learners about what materials would be hosted during which week. This schedule will also be available on the website. The learners would then pursue the materials, do self-check exercises, and interact with the peer group as well as the mentor/ instructor through e-mail. The course coordinator can again put up a summary session at the end of the week and move on to the next week's activity. Sometime before the Term End Examination, the entire material with all the interactions that took place could also be made available to aid preparation for the examination ; The learning materials are divided into smaller, intensive, interactive sessions of about 25-30 minutes each. This is somewhat similar to an episode of a serial TV programme. Each study session would have some content being available, self-check exercises, links to other part of the course and so on. Then there can be an advisory mechanism, which refers to the status of what the learner has achieved during the time spent so far. During the first trimester, the learners would rely mainly on an instructor delivered video lecture format, supplemented with self-learning through Internet based resources. Gradually, this would change towards a greater self-learning and mentoring approach, (IGNOU, 1999).

This programme is being delivered through the Tele Learning Centers (TLCs) which have the state of the art infrastructure to facilitate effective delivery of these programmes. Tele-conferencing based lectures are accessible to the learners at these TLCs. Being interactive in nature (two way audio and one way video) distance learners can interact with experts and faculty members in the studio.

A learners can access the course material through CD-ROMS and IGNOU's Website. The Website has the complete courseware. The learner can also access through the internet, Frequently Asked Questions and their Answers, which have been organized and structured for each course. If learners need to ask a question on a portion of the course which is not covered in the database of Frequently Asked Questions and their Answers, the learner could ask such a question by submitting a form through e-mail. This could in some sense be the equivalent of an electronic post card. The form would be available at the IGNOU's Website. These questions will again be handled by the academic team in-charge of the course and the learner would receive the answer over a period of time. If the question seems to be of

general interest, the question and the answer would be added to the database of Frequently Asked Questions and their Answers. Thus e-mail is being used as a very effective but asynchronous mode of counseling.

The learners are being assessed periodically through both traditional and innovative methods, which include case studies, assignments, time-constrained assessments and work-based projects and final examinations.

PART: 3
STUDENT EXPERIENCES WITH VIRTUAL CAMPUS (VC) PROGRAMMES

In order to assess relative strengths and weak points of "virtual campus-BIT programme" a study was initiated in the year 2001 with the following objectives:

> ***Analyse the attitude of the learners towards resource-based learning; to critically examine the utilization of the resources provided by the University; and to suggest measures for improving the effectiveness of resource-based learning.***

Learners enrolled (1266) for the BIT in 2000 formed the universe of the study. Questionnaires were sent/given (personally) at Student Services Centre (IGNOU, Hqrs.) and Tele-learning Centres. The questionnaire was mainly structured with a few close-ended (objective type) and open-ended questions. Out of 1266 learners, 443 (35%) have returned the filled in questionnaires. Findings:

> ***Around ¾ of the respondents replied positively. Out of this :: Majority (68%) of them felt that they could construct their own individual knowledge base : 60 % of them liked the flexibility in study routes; 46 % improved their study skills; 29 % could think more; 28 % found it interesting and stimulating ; 42 % enjoyed the independence, and 29 % liked the choice of reading.***

However, 25% of the respondents answered in the negative. They did not very much enjoy resource-based learning mentioning that they needed more guidance on what to do and how to do; they also expressed that pursuing courses through VC found tiresome and time consuming and feel drowning in a sea of information.

50% of the respondents mentioned that they studied at a business center/cyber café in the market, 25% at the tele-learning center, 16% at home and 9% at a friend's house. It is interesting to note that 80 % of them downloaded the materials. The rest 20% studied both on the personal computer and also using printed out materials of friends so as to avoid high cost involved. 25%also referred to books to supplement the course materials. Many students expressed that downloading course materials through the web not only time consuming but also very expensive in terms of cost pertaining to telephone charges, stationery and printing and internet usage etc.

When asked whether they liked reading from the screen 62% found it strenuous for their eyes; 42% felt constrained as they could not underline or highlight the material or make notes in the margins; 24 % found it an unfamiliar habit; 26% found it difficult to glance through pages as it is possible in printed materials and 15% found it extremely tiring.

The respondents gave several reasons for downloading the materials. The major reason given by them (66%) was that they did not possess a PC/Internet; hence, they have no choice except down loading. When asked about their utilizations of the support provided to them by the university, their response was as follows:

SUPPORT SERVICES	VERY HELPFUL	FAIRLY HELPFUL	NOT USED AT ALL
Web based course material	42 %	54%	03%
E-mail	30 %	46%	24%
Tele Conferencing	40 %	37%	23%
Videos	25%	30%	45%
Internet-based Resources	40%	40%	20%
On-line chat sessions	15%	16%	69%
Telephone	20%	15%	65%
Library	-	19%	81%
Feedback on TMAs	25%	28%	57%
Guidance received from TLC	28%	36%	36%
Support from Hqrs.	36%	32%	28%
Support from Regional Centres	15%	48%	37%
Student Handbook	25%	45%	30%

From above response, it is obvious that except for telephone facility and feedback on assignment the learner's response to the services provided is more than satisfactory if clubbed 'very helpful' and 'Fairly helpful'.

ISSUES RAISED BY THEM

The respondents have mentioned that very limited hours has been provided information at the TLC is a major hurdle in pursuing their studies. Some have also emphasized about the unsatisfactory internet facility at TLCs, i.e., frequently disconnection of internet. Lack of proper guidance, lack of previous experience in resource based learning, limited storage of MB which often made their assignments bounce back. Many of them are not proficient in typing and are slow in entering the data on the personal computer. Sometimes, even power failure also prevented their usage. In addition, 68 % felt that the lab hours provided were really insufficient and without any academic counselor/right academic counselor, to guide them, hence, the practicals were not that effective. Regarding the on-line examination the respondents have mentioned that the time given to them is very less in order to answer the descriptive type questions. They also found the paper to be too lengthy. Some of them even mentioned that due to sudden power failures they lost the data they had entered while answering the examination. Many of them who did not have any typing speed could not complete the examination and as a result have performed unsatisfactorily.

Suggestions for improvement:

- **More lab hours and face-to-face contact and library facilities at TLCs demanded.**
- **A few hard copies (print) of the course materials should be made available to the learners at TLC/ library, instead of their downloading it and making multiple copies at the TLC. It is proving to be very expensive time-consuming for them.**
- **There should be a few full-time on-line academic counselors to answer their queries both academic and operational.**
- **Interactive CDs to be given to them especially for topics that come under practicals.**
- **Regional Centres should be provided with leased line-LAN facility for internet use. Since, IGNOU is enrolling more and more students in various programmes, many of them may have/not have internet facility, hence they can interact with resource persons/ peer group students using internet facility at the Regional Centre.**
- **Regional Centers should be made more accountable, for more effective and efficient functioning of TLCs. The services provided by TLCs should be regularly monitored since this is the second experiment so as to make it successful and regular phenomena.**

This dynamic initiative of IGNOU of creating a virtual campus is just the beginning. More programmes are to follow soon in the coming years.

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