

## **Models of Open Learning : Indian Experiences \***

Education is one of the important instrument for improving the quality of people, society and nation and also helps in meeting the challenges of fast development of the world. In India, under article 45 of its constitution, provides free and compulsory elementary education to all children upto the age of 14 years. The Govt. of India put lot of efforts in terms of employment of manpower and physical resources through formal system of education. More funds were allocated , schooling facilities were provided within one Kilometer of the location, trained teachers were employed and teaching learning materials were provided. But the desired result of Universalisation of Elementary Education (UEE) could not be achieved due to its rigidities, inadequacies and complexities. The drop out rate is about forty percent at elementary stage and about 55 million children are out of schools (MHRD,2000) .

Keeping this in view, alternative system of open learning with distance mode was thought of and came into existence during sixties. Education Commission (1964-66) and National Policy on Education (1986, revised 1992) also recommended open learning system of education for UEE. The different modes used during last four decades have been discussed in this paper.

### **(i) Correspondence Education**

Correspondence education was started during sixties for untrained primary teachers in the country. The National Council of Educational Research and Training (NCERT),New Delhi made a significant achievement. The teachers were provided training material at their own places and used to attend contact programme at four Regional Colleges of Education, Ajmer, Bhopal, Mysore and Bhubaneswar during summer holidays. Thousand of teachers were

under this scheme. This model became popular and, is being used widely by Indian Universities for the benefit of teacher , students and teacher educators in the country. The National Open School is also using this modality and providing education upto higher secondary stage to working and out of school children.

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The Indira Gandhi National Open University (IGNOU), New Delhi is providing education in different disciplines both at school and higher levels. The courses are quite popular in the country. But sometime the study material does not reach to students due to postal delay and other factors like difficult geographical situation of the country.

#### **(ii) Use of Radio**

The Radio was also used in providing open learning education and the programmes are known by different names in the country. Some programmes are discussed here in detail.

#### **Kuilte Phool**

Children's Media laboratory of Department of Pre-school and Elementary Education, NCERT has conducted a study in Kota (Rajasthan) on the effectiveness of radio broadcast on the children of 3-8 years of age. For this study an experimental group, control group, pretest and post test design was followed.

#### ***Objectives:***

- a) To evaluate the potential of radio as a tool for providing enriching experiences to develop language and cognitive skills in the under privileged children who are in Anganwadis and classes I and II.

- b) To strengthen the competencies of Anganwadi workers and teachers with the help of radio broadcast.

For this purpose 10-15 minutes programme was being broadcast by All India Radio, Kota. Each programme was in a capsule format and consists of a short conversation on the theme, a song, a story and a game related to the theme. The programmes were broadcast six days a week (in all working days) spread over a period of one year. Two new programmes were introduced every week and each of those programmes was repeated twice.

After completion of one year of the radio broadcast (from 2<sup>nd</sup> October 1988 to 30<sup>th</sup> September, 1989) a comprehensive evaluation was undertaken. The results revealed that the Anganwadi children and children in class I and II who were exposed to the radio programme performed better than those who were not. It was also observed that the children of experimental group were more active, disciplined, punctual, curious to ask questions had greater attention span, concentrated better, had better vocabulary and become more articulate as compared to their control group counter parts.

Also the Anganwadi workers and teachers of classes I & II improved in their teaching style. They adopted the play-way technique in teaching. The activity approach replaced the traditional methods of teaching. It was also observed that the Anganwadi workers become more tolerant and caring and understood the concept of holistic development of the children. Keeping in view the success of this project this work was further extended in four states of India i.e. Andhra Pradesh, orissa, Haryana and Uttar Pradesh and the banner of CHEER (Children's Enrichment Experiment Radio). The detail of the project is given below:

**CHEER Project:** The children's Enrichment Experimental through Radio (CHEER) was launched on 2<sup>nd</sup> October 1992 in four states.

**Objectives:** To study the effectiveness of Radio broadcast of the language and cognitive development of preschool children (Anganwadi).

The programme was designed in four different states in their regional languages. The details are given below

S. No.	Name of the State	LANGUAGE	Nomenclature of the programme
1.	Andhra Pradesh	Telegu	Chilaka Palukulu
2.	Haryana	Hindi	Kilkari
3.	U.P.	Hindi	Phool Bagia
4.	Orissa	Oriya	Kalika

These programmes were broadcast from the All India Radio Stations i.e. Cuttack (Orissa), Luck now (U.P.), Rohtak (Haryana) and Vishakhapatnam (Andhra Pradesh) and these programmes were targeted for the children of 3-6 years of age and enrolled in the Anganwadis (courtyard Centre) and the Angandwadi workers. The themes of these programmes were based on day-to-day incidents and simple scientific concepts. The content of the programmes of AIR –Lucknow and Rohtak in Hindi were vetted by the NCERT and in case of AIR –Cuttack and Vishakhapatanam the content vetting was done by SCERT, Orissa and SCERT, Andhra Pradesh respectively. Mainly the themes of the radio programmes were on:

- Environmental Awareness
- Health, Nutrition and Sanitation
- Concept formation

- Cultural Heritage and Folk Tales

The programmes were entertaining and enriching in nature.

The broadcast was on six days a week. Two new programmes were introduced every week and each of these programmes were repeated twice in a week. Each programme in capsule format, having a specific theme was of 15 minutes duration. It consisted of a short conversation, a song, story and a game related to the theme.

Besides guide books comprising of Programme details, objectives of the programme with pre-broadcast broadcast, activities to be carried out alongwith the radio broadcast were supplied to the Anganwadi workers in advance. Also the programme schedules were given Radio-cum-cassette-players (RCCPs) were supplied and their proper functioning was ensured. All the radio stations broadcast the programmes from 9.30 a.m. to 9.45 a.m.

This project was jointly funded by UNICEF, NORAD and World Bank. After one year broadcast of these programmes (from 2<sup>nd</sup> October 1992 to 30<sup>th</sup> September 1993), no proper evaluation of this work was done. However, keeping in view the usefulness of these programmes some of the states i.e. Andhra Pradesh, Orissa and Haryana repeated these programmes again and again.

In the second year of implementation of this project in Haryana, NCERT had conducted a survey to measure the utilization status of these programme. However, the result was not much encouraging.

- **Gyan Kalash**

To keep the teachers abreast with the innovative techniques of teaching and learning process, the Himachal Pradesh state has evolved a need based 21 days training programme in four district of District Primary Education Programme (DPEP) project through Radio

Programme. Difficult geographical situation, difficult terrain, rough and cold climate, non-availability of printed reading material well in time and non-reception of educational programme of Television provide a cue to the state to launch a teacher training programme – Gyan Kalash. The prime objective of it is to provide academic support to the primary teachers at their native place. Gyan Kalash will be helpful in improving the accessibility of the knowledge to the teachers of the most distant difficult areas and make it possible to impart quality training to them along with their colleagues. Gyan Kalash was planned, designed, developed and executed in the following manner.

### ***Registration of target Group***

Broadcasting of programme was intended to provide training to inservice primary teachers in four districts namely-Chamba, Kullu, Sirmour, Lahaul-spiti. The trainees were made aware about the programme by publicity from All India Radion (AIR), Shimla, inserting advertisements regarding registration for the programme in leading regional newspapers and through official letters to the district functionaries including Principals of District Institutes of Education & Training (DIET), and District Primary Education Officers, Block Resource Centre (BRC) coordinators, Cluster Resource Centre (CRC) coordinators, Centre Head Teachers and members of CRC were the main clientele for registration. Any teacher both DPEP & Non-DPEP can be registered by State Project Office.

### ***Broadcasting days, time and Schedule***

The first programme of Gyan Kalash was broadcast on October 5, 2000 to acquaint teachers with the modalities and use of Distance Education as teacher training programme. The programme was aired twice every week on Thursday and Saturday from 7.05 p.m. to 7.20 p.m. It is prime time and people are available in their houses. The programme schedule for the whole month was chalked out and circulated in advance to all the district functionaries from where it was

communicated to individual member of programme. In three month duration, total twenty eight programme were broadcast.

### ***Content of Programme***

The entire Radio programme was based on Integrated Teachers Training Module developed by the state. The development of the module is the result of strenuous efforts of Teacher Educators from University, State Council of Educational Research & Training (SCERT), College of Education, DIETs and primary teachers who had the actual experience of teaching in primary classes. The first seven days training of this module was transacted through AIR. The content of the programme was meant to provide an insight to teachers for better understanding of subjects and improve their teaching skills in classroom transactions. Wide range of topics were included in the programme ranging from subject specific to classroom specific. They promote child centred learning by making learning process joyful and creative. It also provides training to evaluate child continuously in multigrade situation. Girls education, gender sensitivity, community participation, school readiness , special education, moral education, teaching methodologies are the topics.

### ***Resource Persons***

Radio is a medium with sole dependence on sound in which scripts are the basic framework. For Gyan Kalash-scripts are developed with utmost care and provided by resource persons. They were duly edited and approved. The Resource persons have expertise in their field. Different formats were used for the broadcast of the programme. Some of the programme were produced in panel discussion form, some in straight talks and others in interview form.

### ***Production of programme***

The scripts were designed in interactive form and presented in interesting way in simple language. Attempts are made to draw the

attention of listeners to focused points of attention of scripts by recapitulating them during and at the end of each episode. Production of programme were made by AIR, Shimla.

### ***Assignment and Feedback***

To bring about improvement in training broadcasts , it is imperative to evaluate them and get feedback from the listeners. The state has inbuilt machanism of evaluating teachers responses by asking a question at the end of the each episode. The teachers reply these questions in hundred words after the broadcast of each episode and mail to respective DIET.

### ***Evaluation of Responses***

The workshop is organized on the basis of their responses received in DIETs and responses are graded.

- **Gyan Vani**

Gyan vani is the radio cooperative devoted exclusively to education and development. The Government of India has allotted 40 FM radio stations to Indira Gandhi National Open University (IGNOU) and the first FM radio station of these was launched during January, 2001. The Gyan Vani is aimed at expanding the scope of distance learning further by including economically weaker sections of society. The Non-government organizations are also (NGOs) involved in running these FM channels. In first phase, these are of eight hours of originated progrmmes every day, which is repeated in two loops so that broadcast can run continuously for 24 hours. Three hours of programme is wholly education oriented and are contributed by sister organizations of IGNOU and State Open Universities, the rest five hours is contributed by NGO sector, free of cost. This channel has the opportunity to distinguish between the role of the teacher in a classroom and the teacher interacting with students and listeners through electronic



media. The FM radio station is playing significant – role in the training of teachers.

- ***Audio conferencing: Training of teachers through distance mode***

With the availability of off timings of All India radio, easy access to the telephone lines and fax facilities CIET, NCERT conducted an inservice teacher training through distant mode. A three day orientation programme was designed and executed by CIET, NCERT from 22<sup>nd</sup> to 24<sup>th</sup> March 1999. This was unique experiment of its kind. The Programme was organised in collaboration with all India Radio, Indore (M.P.); Institute of Education DAVV , Inodre and Directorate of Education, govt. of M.P. Indore.

***Objectives:***

To assess the feasibility, workability and effectiveness of audio-conferencing in the area of teacher education by using off timing of radio station.

Phases of the Programme:

The Programme was conducted in three different phases

Phase –I In the first phase assessment of training needs were done and the problems categorized i.e.

- i) Problem related to the learning (child)
- ii) Problems related to teaching (Teacher) and
- iii) Problems related to parents and community

Phase-II In the next phase the teacher educators of DIETs and Headmasters of 10 schools were trained in an one day programme to play the role of facilitators in teacher centers.

Phase III The actual training was conducted in this phase. There were 10 teacher centers and 20 primary school teachers were invited at each center. Each center was provided with a functional radio set; a telephone line and a trained facilitator. The centers were asked to use the nearby fax services for sending questions/answers. Each day was splitted into three sessions.

a) Session-I Problem Session: This session was for 1 hour and 45 minutes (10.A.M. to 11.45 a.m.) and known as problem phase. Teacher centres ask questions through telephone and it was broadcast live through AIR. Also they fax questions if no. of questions were more or the telephone line is busy. The role of experts was only to ask supplementary questions to clarify.

b) Session-II Solution session: this sessions was for 3 hrs and 30minutes (from 11.45 to 3.15 p.m.) when the regular broadcast AIR is done. During this phase teachers discuss the solution of the chosen problem and send to AIR through FAX for discussion and dissemination for the other teachers.

c) Session III (Discussion phase): this session was for one hour and 30 minutes(from 3.16 p.m. to 4.45 p.m.).

Again it was a live broadcast phase, and in this session experts discuss the solution sent by teachers and give their comments. The teachers are free to make comments and ask supplementary questions during this session.

The data shows that about 86% teachers felt that the programme was useful for them and better than the traditional method. Also 95% teachers opined that the use of off timings of All India Radio and locate telephone lines for training of teachers was an innovative idea and cost effective as well.

### **(III) Use of Television and Multimedia Approach**

Television as medium was used first for teacher training in 1975 as part of Satellite Instructional Television Experiment (This led to the establishment of the then Centre for Educational Technology (now known as Central Institute of Educational Technology in NCERT, State Institutes of Educational Technology (SIETs) and Educational Technology Cells in SCERTs. These states developed and produced television programmes through SIETs and transmitted through regional channels. The launching of Open Universities including Indira Gandhi National Open University resulted in development of modules consisting of print, audios and video and its delivery through broadcast,

non-broadcast and teleconferencing mode. Some of the IGNOU's programmes are for professional development of teachers at primary, secondary and tertiary levels. Further, the development in this direction took place with launch of Delhi Doordarshan- Gyan Darshan. This channel is being effectively used for broadcasting video programmes for the benefit of children, parents and teachers. The other TV channels including DD regional channels transmit programme for children and teachers.

- ***Teleconferencing***

To enhance the interactivity with the teachers, one way video and two way audio teleconferencing is conducted in collaboration with the Indian Space Research Organisation (ISRO). During teleconferencing, the experts or subject counsellors present in the EMPC-IGNOU studio provide expert knowledge about the notified topic and the learners at the receiving locations spread all over the country can participate in the programme and send their queries through telephone or fax. The experiment was designed by NCERT under the Special Orientation programme for Primary Teachers (SOPT) in Madhya Pradesh and Karnataka in 1996. It has reduced the transmission loss and has incurred the training effectiveness. This modality became popular and training is being organized through this mode under District Primary Education Project in many States/ Union Territories. But it could not be used largely due to non-availability of basic technical facilities.

- **Headstart**

A Computer Enabled Education and Development of skills through the Jan Shiksha Kendras by the Rajiv Gandhi Shiksha Mission, called Headstart was initiated in Madhya Pradesh State, the description of which is given as follows.

### ***Objective***

Massive Education in basic computing to develop capabilities in student from primary stage to use computing as an effective tool for a variety of purposes including learning of emerging dimensions of science and technology and other areas of knowledge and skill up-gradation.

### ***Methodology***

The 6500 Jan Shiksha Kendra (JSK) which today serves as academic support hubs and which are located in the Middle Schools in the state are used to provide computer-enabled education to all children in those middle schools as well as familiarize primary school children in the catchment of the JSK with computers and computer possibilities. In a latter phase as the JSK repositions itself as library or 'adda' for youth in the after school hours, it can open up the facility to the community at large to benefit from a flow of ideas and knowledge.

### ***Outcomes***

- Training of teachers of middle schools and primary schools in basic computing skills.
- Familiarisation of all primary school children in basic computing through once a week session in the JSK.
- Computer-enabled education to all students of classes 6,7 &8
- Positioning of the JSK with computer facility as library units with community access in the future.

The aim is to give a 'headstart' to children in the primary and middle school of Madhya Pradesh in terms of computer enabled education. While the students of middle schools actually use the computers in JSK for learning, at the primary school level basic familiarity with computer and what it can do is be demonstrated. It motivates the children. This multimedia

dimension of these technologies can also effectively used to supplement lecture based education by multimedia education and supplement libraries by multimedia learning material Headstart is operationalised by Rajiv Gandhi Shiksha Mission as part of a comprehensive strategy to “ raise the quality of education” that is now its major challenge. With this scheme it can reach to every habitation of the state. A tribal child from a disadvantaged economic context in an EGS school in a remote tribal habitation can through a multimedia aided computer go through a CD ROM like ENCARTA and walk the street of New York and animals of world.

The first phase of implementation is in 6500 JSKs in 48 districts of Madhya Pradesh. Each JSK covers about 10 primary schools and three middle schools. In second phase the JSK will be expanded to 13 more districts to effect universal coverage. In the third phase when JSK opens up to the community during after school hours. This phase should be taken up only after Headstart stabilizers as an essential component of the schooling stream so that extraneous power relationships do not create distortions.

This project has become quite popular on experimental basis and the modalities are being worked out to use at wider scale.

- **IPTT-ITV**

In service Primary Teacher Training through Interactive Television (IPTT-ITV) is a project of Govt. of India in collaboration with UNESCO & ITU is being implemented on pilot basis in Gujarat and Madhya Pradesh. During pilot testing 20 Learning Centres in both the states are set up. The long term and ultimate goal of IPTT-ITV project is universalisation of elementary education through training of primary teachers, teacher educators and supervisors for capacity building. It aims at strengthening the on going training programme of primary

education personnel by using ITV. This will help to bring about quality and effectiveness of the teaching learning process in primary schools. It will also reduce transmission loss which occurs in the face to face mode of training. It will diminish the physical distance between the learners and the experts to provide similar information to all the trainees, without feeling the constraints of time, place and quality.

### ***Objectives***

To build capacity of the system for providing sustainable in-service education to primary education personnel of projects districts and blocks

- To design and develop courses and programmes according to local needs.
- To develop print, audio, video and multimedia software according to the requirement of the proposal distance education programme
- To use ITV to improve quality of interaction in distance education'
- To improve capability of training institutions i.e. DIETs or PTTIs of the projects and blocks
- To improve a training network linking state, district and block level centers for training delivery through distance education
- To improve inter-institutional, inter - departmental and inter-ministerial linkages and co-ordination for greater effectiveness and sustainability.

### ***Target Group***

Eight thousand primary teachers of Class- V, teacher educators and supervisors belonging to rural urban and remote areas are covered under this project. They are being trained in the areas of teaching and learning of language Mathematics & Science and teacher

educators and supervisors are provided guidance in their respective areas.

### ***Strategy for Delivery Mechanism***

#### ***Home Based Learning***

The self learning material is being prepared in printed, audio with a handbook.

#### ***Site based Learning***

The teachers are then expected to try out the teaching learning practices suggested in SIM in their schools and prepare a study paper based upon their experiences in the field.

#### ***Institute Based Learning***

(A) Face to face teachers training at the Learning Centres. After the above two phases, the teachers who have sent their study papers in time limit will be called for 5 days training at the Learning Centres. Out of these five days three days will be of face to face training during which the teachers will be share their experiences through

- sharing upon SIM
- discussion upon field experience
- group discussion
- group work
- video programme and get solution regarding their teaching Learning programme.

#### ***ITV Session (Distance Mode Teachers Training)***

The other two days shall be devoted to ITV session during which solution regarding unresolved problems of face to face training will be given by the presenters from the presentation center with the help of

computer software. After ITV sessions there will be follow up of question and answer session during which the presenter will give solutions of questions of teachers. The evaluation of project is part of the project to observe whether interactive television proves to be effective media for distance education. This project results are yet to be seen. The project results are yet to be seen but this type of open learning will be more effective and useful.

By way of conclusion, it can be said that India has gained rich experiences in the Open Learning System and it has become quite popular today. Millions of students have joined this system both at school and college levels and getting education of their own choice at their doorsteps.

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