

Television in Distance Education : The Indian Scene

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The issue of using TV effectively and extensively in our distance education systems has invariably brought conflicting views to the fore. There are some who want it in all its glory and glamour whatever the costs, and then there are those who on account of the high costs involved, poor or at best doubtful "access" and absence of dependable indigenous technology would like to give it a back seat. In order to encourage purposeful interaction on this issue, we thought it desirable to present a review-cum-status note on educational TV in India, as comprehensive information on this theme is not easily available from a single source. We welcome additional and topical details for promoting this educational activity.

1. INTRODUCTION

Some educationists in India seem to be of the view that the use of media in the developing countries is a costly fashion and an unjustified imitation of what has been or is being done in the developed countries. Being ignorant about the potential of a particular medium or the judicious combination of two or more media of instruction, they adopt a negative stance towards the use of media in education.

These days use of media is an essential component of teaching-learning strategies to achieve various national goals – socio-economic and cultural. This, however, is not to say that media alone can achieve all the educational goals and solve all the problems faced by educational systems. Nor do I suggest that a medium is a magic box of tricks which ensures cent per cent learning amongst the learners. My contention is that media add to the efficiency as well as effectiveness of teaching-learning process both in the case of face-to-face and distance education situations.

In this paper, the discussion is focussed on television as a medium of instruction for distance education in India. I shall try to analyse the possibility of imparting televised instruction throughout the country. My main concern is to reflect on the historical overview, coverage, distribution and quality of television products.

2. THE CONTEXT

India is one of the few developing countries that has made revolutionary strides in modernising communication techniques. The last two decades, in particular, have been very innovative, productive and imaginative. Only a few years back, India joined the Space Club when it launched its own satellite making it possible to reach the remotest of villages in far-flung areas. The use of

satellite has made it possible to provide live coverage of national and international events. With the development of TV, a new chapter of transmitting sound and vision simultaneously has been added to the already widening circle of transmission systems. It has been accepted and perceived as a medium of communicating socially desirable messages, as also programmes of information and entertainment value. The socialising effect of television is widely recognised and continuous efforts are being made to improve the telecast, qualitatively and quantitatively.

Television entered India three decades ago on September 15, 1959 (Audience Research Unit, 1991)¹ as a pilot project funded by the Ford Foundation. It started with 20 TV receivers in and around Delhi, and transmitted one hour educational and developmental programmes twice a week. Over the years, the coverage of television remained static. In other words the emphasis was on consolidation rather than expansion. The coverage of Delhi transmitter and the duration of telecast, however, increased. Thirteen years later the second television centre came into existence at Bombay on October 2, 1972. Between 1972 and 1975, four more *Doordarshan Kendras* (Television Centres) – Srinagar (January 26, 1973), Calcutta (August 9, 1975), Madras (August 15, 1975) and Lucknow (November 27, 1975) were commissioned.

A significant landmark in the history of television in India was the one year Satellite Instructional Television Experiment (SITE) launched on August 1, 1975 involving 2330 villages of the economically backward states. An American satellite was extensively used to telecast messages to promote the socio-economic development of rural viewers, through intensive communication. The available resources – human and machine – were fully mobilised to make the experiment a success. However, the enthusiasm created by the SITE could not be sus-

tained in the subsequent post-SITE part of the project. However, in the mean time television went colour in India on August 15, 1982.

On the eve of the Asian Games in November 1982, *Doordarshan* (Television India) gave wide coverage to sports events through 21 low-power transmitters (LPTs) commissioned at different locations in the country (this was the first time when LPTs were used to receive and transmit visual messages). This was possible with the services rendered by the Indian National Satellite (INSAT-1A) which became defunct in a very short period of time. Failure of INSAT-1A, of course, impeded the expansion process. It was however restored by operationalising INSAT-1B on October 15, 1983. Thereafter, the speedy installation of transmitters has been a record performance and has made *Doordarshan* one of the largest networks in the world (Audience Research Unit, 1991)¹.

Indigenous communication satellite has given ample scope for the expansion of *Doordarshan* – quantitatively and qualitatively, as important events such as Non-Alignment Movement (NAM), Commonwealth Heads of Government Meet (CHOGM), etc. were successfully covered and telecast in many countries. Besides adding to the number of transmitters, coverage of INSAT areas, national programmes, regional news, second channel, teletext service, linkage of terrestrial transmitters with State capitals, unmanned very low-power transmitters (VLPTs), morning and afternoon telecast, etc., were introduced in a phased manner. All these developments however indicate that the major expansion was in the area of hardware. No adequate attention was paid to improve the software part proportionately.

Educational programmes constituted a part of the telecast from the very beginning of regular television service in the country. At present, supplementary educational programmes are being telecast for the students at the primary, the secondary and the higher educational levels. But, we have just begun, as is brought out clearly in the following section.

3. THE PROGRAMMES

From the very beginning, television has been perceived as a potential tool for imparting education and as an agent for social change. While inaugurating the first pilot *Doordarshan* service on September 15, 1959, the then President of India commented:

'I hope, television will go a long way in broadcasting popular outlook and greatest advantages of scientific discoveries.....' (*Doordarshan India*, 1984)²

Today's telecasts constitute a variety of programmes, of which I focus on informative and educational programmes.

3.1 Informative programmes

Informative programmes include news bulletins,

political events, economic data, scientific, cultural and social messages. These programmes have great relevance for distance education. These enlighten distance learners about important contemporary events and are helpful in effecting better understanding of their courses. The recent coverage of the crises in USSR and Yugoslavia, for instance, gave the students of political science up-to-date supplementary information about the recent socio-political transformation in socialist countries.

Another advantage of these informative programmes is to inform distance learners about the various academic activities of the institutions to which they are attached. Information about admissions, examinations, tutoring, counselling etc., can be passed on to the learners instantly. Moreover, such information can be transmitted at national, regional or local level in the learners' own languages and even in their dialects. For example, if we want to communicate in Marathi, we can do so through Bombay Kendra (Bombay Centre) which is linked with all the transmitters in Maharashtra. Or if we want to inform villagers of Chhatisgarh region (Madhya Pradesh) in their own dialect, we can do so through Raipur Kendra. Today, all this is possible in India through the use of satellite-based communication and terrestrial transmitter network.

One of the important devices for transmitting data/information is the teletext facility, which is now available in our country. Teletext is a potential source of information for distance learners scattered throughout the country – from a metropolitan city to a remote village. This facility is available to:

- i) those consumers who have 'decoder' facility, as they can recall and retain information on their television screen as and when they want to have it; and
- ii) the general public on Channel II in normal mode which does not require the decoder device.

Teletext service is being used for certain commercial purposes – giving information on current affairs, railway and airline services, sports, etc. So far no effort has been made to use teletext service for educational purposes.

3.2 Educational programmes

As already mentioned, two types of educational programme are telecast – formal education and developmental education – currently.

3.2.1 Formal Education Programmes: These programmes are intended primarily to educate learners. They are related to specific curricula, say those of the school or the university. These programmes are primarily supplementary in nature, and provide enriching experiences for the learners. Thus, these programmes, as additional sources of information, support face-to-face teaching or printed text materials available to distance learners. Indira Gandhi National Open University is moving towards certain other uses of television – com-

plementary and integrated programmes. This venture, however, will take time to come through.

Nowadays, Doordarshan telecasts the following types of formal education programme:

- i) Educational Television (ETV): These programmes cater to primary school children of 5-11 year age group. ETV enrichment programmes are planned, produced and evaluated by the Central Institute of Educational Technology (CIET) and its counterparts in States (SIETs). The programmes are telecast by *Doordarshan* through satellite in the children's instructional languages.

Primary school children view these programmes on community sets. An ETV capsule of 45 minutes duration consists of two programmes of 20 minutes each with five minutes changeover time. The first programme of the capsule caters to the lower age group – 5-8 year old children (grades 1, 2, and 3) and the second programme to the upper age group of 9-11 year old children (grades 4 and 5). Five minutes are given for changeover from one group of children to another. Topics for ETV programmes are selected from the primary school syllabus. Preference is given to those topics which are difficult to teach in a classroom situation, and also those which are suitable for the visual medium.

ETV programmes are produced in Hindi and thereafter dubbed in four languages – Telugu, Oriya, Marathi and Gujarati for the children of Andhra Pradesh, Orissa, Maharashtra and Gujarat States respectively. The programmes in Hindi are telecast by all transmitters in Hindi speaking States – Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Haryana and Himachal Pradesh.

Besides, the above mentioned *Doordarshan Kendras* (Television India Centres), Delhi and Bombay also produce and telecast (through terrestrial transmitters) ETV programmes for the children of their coverage areas.

After viewing numerous educational programmes telecast for rural primary school children, I found that most of the programmes depicted the urban environment and the content was directed to urban viewers, in terms of language, pacing and the concepts being taught. The reasons for this are the location of the programme production centres and limited resources. As the programme producers display the socio-cultural background of the urban children, the programmes fail to address rural children who, on their part, find the programmes irrelevant to their immediate environment. This phenomenon is detrimental to the utilisation of ETV programmes in rural areas where their utility remains doubtful even today.

- ii) School Television (STV): STV programmes, started on October 24, 1961, are meant for students of the secondary and the higher secondary schools. These programmes are produced and telecast by *Doordarshan*.

As per information available, four *Doordarshan Kendras* – Delhi, Bombay, Madras and Srinagar, are engaged in the production of STV programmes for the students of their respective coverage areas. These programmes are strictly syllabus-based and are telecast during school hours. The main objectives of STV service are twofold:

- to teach science subjects and thus improve the quality of instruction in sciences, and
- to overcome the dearth of adequately qualified secondary school teachers.

- iii) Higher Education Television (HETV): In order to bring qualitative and quantitative improvements in higher education, the University Grants Commission (UGC) launched HETV programmes, known as 'Country-wide Classroom', on August 15, 1984. These programmes are produced in English by Mass Communication Research Centres set up by the UGC at various universities such as Jamia Millia Islamia, New Delhi; Gujarat Vidyapeeth, Ahmedabad; Roorke University, Roorke etc. The programmes produced by various production institutions are pooled by the UGC for reviewing their quality and handling them over to *Doordarshan* for telecast. These one hour UGC programmes are telecast through satellite all over the country from 12.00 p.m. to 1.00 p.m. and the same programmes are repeated in the afternoon (4.00 p.m. to 5.00 p.m.) for wider coverage. The programmes vary in subject areas – languages, social sciences, engineering, technology, sciences, etc. HETV broadcasts also include a number of programmes produced by foreign countries.

- iv) Indira Gandhi National Open University (IGNOU): Besides the printed text and occasional face-to-face contact sessions, IGNOU course-materials include audio and video cassettes, which are available for use at study centres and also on sale for home study. For optimum utilisation of these audio-video components, IGNOU telecasts its video programmes for half an hour, thrice a week, from 6.30 a.m. to 7.00 a.m. on Mondays, Wednesdays and Fridays for those IGNOU students who would otherwise not have an opportunity to take advantage of these programmes.

Most of the IGNOU programmes supplement the printed texts – the master medium of learning – and cater to a specific group of learners. Of course, the general public can also view these IGNOU programmes, and they do so with great interest.

- v) Teachers' Programmes: In order to make the primary school teachers aware of the innovations in teaching-learning processes, management of televised instruction, child psychology, etc., the Central Institute of Educational Technology (CIET) produces programmes for teachers, known as 'Hints for Teachers'. Each programme of 45 minutes is telecast

on every Saturday during school hours in their respective languages of instruction, as in the case of ETV. Besides, *Doordarshan Kendra*, Bombay also telecasts a 20-minute programme for teachers every week. The assumption is that an average teacher can improve his performance with the help of these programmes.

Except STV, all the formal education programmes are planned and produced by various expert institutions under the Ministry of Human Resource Development. Formal education programmes constitute a little more than 3 per cent of the total telecast time per week – according to the latest information available, *Doordarshan* uses 1500 programme hours per week (Audience Research Unit, 1991). The details about the duration of the respective telecasts is given in Table 1.

Table 1: Formal Education Programmes: Hours Per Week

Programme	INSAT	Delhi Kendra	Bombay Kendra	Madras Kendra	Srinagar Kendra	Total Hours
ETV	15.00	0.40	1.20	–	–	17.00
STV	–	8.40*	3.45	3.00*	1.20**	16.45
HETV	10.00*	–	–	–	–	10.00
IGNOU	1.30	–	–	–	–	1.30
For Teachers	0.45	–	0.20	–	–	1.05
Grand Total						46.20

* It includes repeat telecasts also.

** STV remains closed during winter.

3.2.2 Developmental Education Programmes: These programmes are intended to bring about cultural, social and economic development among the masses, especially the underprivileged sections of the society such as villagers, women and children. The development areas which are generally supported by mass media are agriculture and allied fields, health and hygiene, mass literacy, social education and the like.

A bi-weekly developmental education programme, entitled *Krishi Darshan* (Agriculture on TV), was introduced in Delhi on January 26, 1967. For the first time community television sets were used to disseminate messages on agriculture and allied subjects such as poultry, fishery, piggery, small scale agriculture-based industries, etc. Teleclubs were formed in order to ensure utilisation of television programmes. *Krishi Darshan* programmes continue to be telecast five days a week.

Developmental education was a prime component of SITE programmes. Messages on agriculture, health and hygiene, family welfare, social education, etc., were presented on community sets to large audiences, and research studies on SITE point to the positive impact of television-based developmental education on rural viewers.

After eight years of post-SITE programme, India launched her own satellite (INSAT) and started telecasting developmental education programmes regularly. These area specific programmes of 35-40 minutes dura-

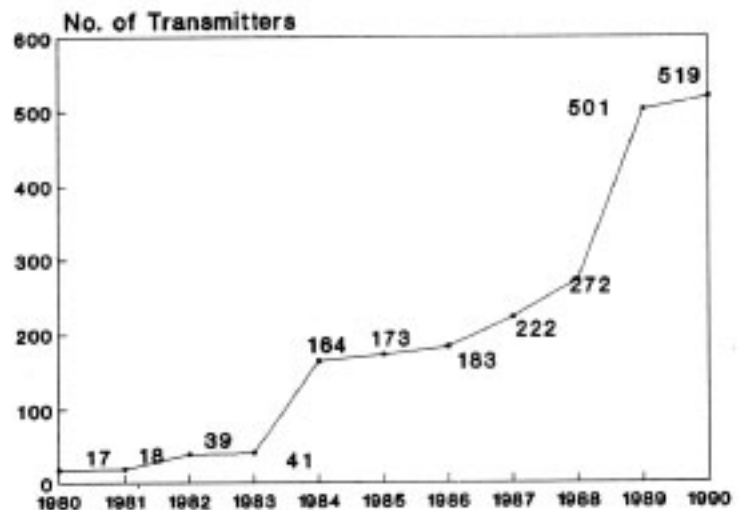
tion in regional languages are now being telecast through satellite five days a week for the viewers of Ranchi, Gorakhpur, Nagpur, Sambalpur, and Rajkot INSAT service areas.

4. THE COVERAGE

As stated earlier, about three decades ago, a transmitter with a coverage area of a few kilometers was commissioned in Delhi. For two decades – from 1959 to 1980 – television expansion remained confined to some important urban places only. The geographical coverage of television broadcasting in India did not reach beyond the vicinity of a few urban clusters. The territorial spread of television programmes was hampered by the high cost of television sets, lack of variety in telecasts, and lack of technical (transmission) facilities in various regions.

From 1983 onwards unprecedented expansion of terrestrial transmitters (mostly LPTs) took place as operationalisation of Indian National Satellite (INSAT) and installation of ground facilities (earth stations and terrestrial transmitters) resulted in extensive reach of television services. 1984 and 1989 were the years of commendable achievements, when respectively 123 and 229 transmitters were commissioned. Data regarding the expansion in this area are shown in Figure 1.

Fig.1: Expansion of TV Transmitters



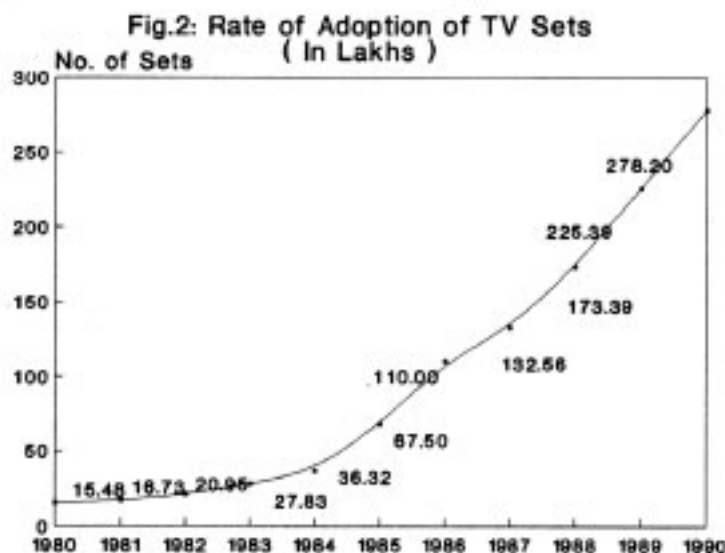
Source: Television India, 1991 years

Most of the big cities in the country have been put on the *Doordarshan* map of India. According to the latest data available, *Doordarshan* has a network of 523 transmitters all over the country estimated to cover 78 per cent of the population and 57 per cent of the area. *Doordarshan* authorities are planning to install more transmitters in uncovered, critical, remote, hilly and far flung areas having low density of population. Through such a plan, it will be possible to bring scattered populations into the main stream of social developmental programmes.

We should not forget that, in spite of this unprecedented expansion, television in India is still an elite mass medium heavily concentrated in urban areas (Singhal & Rogers, 1989)³. Nevertheless, the telecast of serials like 'Ramayana' and 'Mahabharat' has motivated villagers all over the country to increase their access to this medium. As a result, a number of antennas are visible in villages these days. Now, a television set is a status symbol among villagers, and interestingly, it has become a common dowry item too.

5. DISTRIBUTION

Doordarshan telecasts its programmes through two types of distribution systems – domestic and community viewing schemes. Under the domestic viewing systems, a viewer watches programmes in his/her house or the place of work. Due to extension in coverage and duration of television broadcasts, the number of domestic television sets increased tremendously. Moreover, the liberal policy of the Government motivated industrialists engaged in manufacturing electronic gadgets to shift to the production of television sets. As a result, as against 41 sets in 1962, the number has reached 27.82 million by 1990. The increase in the number of television sets from 1980 has been shown in Figure 2.

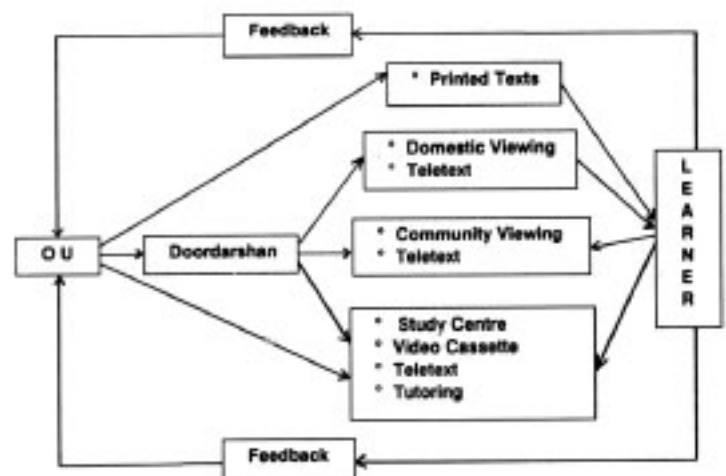


Source: Television India. 1991 Years

The second system of distribution of programmes is the community viewing scheme. Realising the importance of television programmes for rural development, media planners decided to extend television facility to rural viewers who were not in a position to buy a television set for themselves. Thus to give a wide coverage to educational programmes, 50,032 community sets have been installed at public places, mostly in primary schools. The sets are supposed to be used for ETV programme telecasts during school hours and for developmental programmes for adult viewers in the evenings. It is strongly recommended that to reach the learners living in remote rural areas – open universities should make use of community sets. As I mentioned earlier, every

community viewing centre can function as a mini-study centre where learners, besides viewing television programmes, can gather information through teletext and discuss their pedagogic problems with colearners. The custodian teachers who have been given the responsibility to manage televised instruction for primary school children, can also work for open universities provided they are given some incentives. Conversely, study centres started by some universities/institutions can function as community viewing centers for distance learners. The possible use of television programmes as a multimedia package, is shown in Figure 3.

Fig.3: Use of TV in Multi-media Packages



A third scheme for the distribution of audio-visual component of a multimedia study package is the video cassette technology which is not so popular in the education sector in India because of the high cost of video cassette recorders/players (VCRs/VCPs) and the non-availability of educational programmes on cassettes. Only about four per cent of the households, mainly in major cities in India possess VCRs. IGNOU is the first educational institution in the country to make use of video cassettes for teaching-learning purposes of its learners. VCR facility is made available at study centers scattered all over the country. All the distance learners, however, do not have easy access to study centres where VCR facility has been provided by the university. Therefore, even for IGNOU the video cassette is of limited utility today.

6. FORMATIVE EVALUATION

If we want to make use of television programmes to improve pedagogical transactions, we should adopt strategies to exploit the potential of the media. One of the strategies is the use of formative evaluation in planning, developing, producing and utilising educational television programmes. Research inputs can sensitise planners, producers and teachers about the range of students' reactions to programmes and the variables which

affect them, and thus provide better understanding of the complexities of the communication process as a whole (Kemelfield, 1977)⁴.

"If Indian TV is to meet its well defined objectives in the field of education, family planning, health and agriculture, it will need the backing of a strong and comprehensive programme of research into programme content and forms and their suitability to the Indian situation. There is also the need to develop a feedback and evaluation system designed to ensure continuing effectiveness." (Mullick 1977)⁵.

The idea of systematic formative evaluation in India was developed during Satellite Instruction Television Experiment (SITE) by the Space Applications Centre (SAC), Ahmedabad. A small team of formative researchers was trained and put on the job under SITE-Continuity Research Cell. The team was posted at *Upagrah Doordarshan Kendras* (Satellite Television Centres) at Delhi, Hyderabad, Cuttack and Ahmedabad (Kheda Communication Project – KCP). After four and a half years the team (except KCP) was administratively transferred (functionally the team had already been working for *Doordarshan*) to *Doordarshan* through a memorandum of understanding between the Indian Space Research Organisation and the Ministry of Information & Broadcasting, Government of India. The main function of the team was to provide research inputs for educational programmes – formal and developmental. Unfortunately, the system did not work and died out without showing any tangible output/impact. The causes of this failure are not far to seek – poor leadership, lack of clear guidelines and policy decisions on research-based production, lack of support from the heads of programme production centers, lack of adequate training facilities, lack of initiative on the part of producers and researchers, low status of researchers and lack of administrative will are obviously the most visible of these causes. The propaganda, that formative evaluation is a costly affair as it requires a lot of equipment, was floated in *Doordarshan* by those with whom the idea did not click. These factors demotivated the already demoralised team of researchers. As a result the formative research team moved to summative research as its main activity.

This was not the case with *Doordarshan* alone. Formative evaluation could not get due attention of the administrators of other programme production institutions either. Institutions such as CIET, Indian Institute of Mass Communication (IIMC), and Film and Television Institute of India (FTII) could have set the trend and developed workable systems of producing research-based programmes to achieve educational objectives, but they could not. It should be mentioned here that all these institutions have their own research units. A Television Research and Prototype unit was started at FTII, Pune, in July 1975 with the main objective of developing, through research and experimentation, television

programmes suitable for Indian situations. The unit also aimed at improving the production system itself through regular feedback and evaluation. The unit worked on research techniques and programme formats for some time, but the contributions of this unit are not visible in the actual production of any television programmes.

Obviously, there is an opportunity for open universities to take the initiative. It is time for open education institutions to activate and strengthen in-house formative research for improving the quality of television programmes. Research and evaluation can be inserted in a pragmatic way in the day-to-day production and broadcasting operations of these institutions. There should be clear guidelines for incorporating research inputs into programme related decisions. Having said this, the following suggestions in this connection are in place here:

- To see that formative evaluation is effectively used in producing quality programmes, we should develop a training module for all those who are involved in planning, producing and evaluating programmes. The producer, being the overall incharge of programme production, should be thoroughly trained in utilising research findings and thereby producing research supported programmes.
- Unfortunately, there is no training programme/institution for formative evaluation. Open universities engaged in the production of audio-visual programmes can come forward to formulate suitable training strategies. IGNOU being a premier institution and the largest consumer of educational media, can set the example for the rest of the institutions including *Doordarshan* and All India Radio (AIR). IGNOU has expertise in both research and production, and is equipped to undertake training courses of various durations and types.
- Researchers should be adequately exposed, not only to research methodology, but to the process of producing programmes for education and development, i.e., they should have expertise in researching, planning, scripting, producing and editing programmes.
- The researcher should be good not only in drafting a report but also in putting research findings in such a way that the producer concerned can make use of research inputs to improve the quality of programmes.
- To encourage communication between a producer and a researcher, they should be allowed to interchange each other's positions. A researcher should be able to work as a producer and vice versa. I feel that a researcher, or an academic for that matter, should be trained as a producer, for I am convinced of the fact that subject experts would be able to produce more effective programmes in the areas of their specialisation. This view appears to be worthy of experimentation.

7. THE UTILISATION

There are two ends of any media-based education – the source end and the receiving end. The source end is responsible for planning, producing and telecasting programmes while the receiving end takes care of utilisation of the programmes. But experience reveals that utilisation of programmes is nobody's business/concern. The source end – media planners, producers, researchers/academics, feel that the success of television programmes in terms of their utilisation is not their responsibility. Research studies (Shah:1972⁶; Phutela:1980⁷; IIMC:1983⁸; Singh and Singh:1983⁹; Malik:1986¹⁰; Joshi:1988¹¹) reveal that the utilisation of community television, the day time educational programmes as well as the evening developmental programmes, is very poor. Reasons for this state of affairs vary from poor quality of programmes, poor maintenance of the community sets, frequent electricity failure, indifferent attitude of user teachers to lack of support or background material, lack of incentives to the teachers, lack of interest among educational and media administrators, etc. The net result is that community television sets, like other teaching aids, are lying idle in the schools.

Recently in Rajasthan, I got the opportunity to visit about one hundred rural primary schools equipped with community sets. To look into the problems of school telecast (ETV), I discussed the operation of television sets with custodian teachers and school children. In the first instance the majority of teachers admitted that they had been operating the sets regularly and the children were benefited by the programmes. Further, the official records maintained by the custodian teachers showed 'high' operation of the television sets. Again, in a questionnaire response also, they were positive about the regular operation of the sets. However, later on, during discussions, they agreed that because of a number of constraints, they could not operate the television sets. The factual position was revealed by school children who categorically stated that television sets were not being operated at all. I do not want to say that the fault is that of custodian teachers only. They too face genuine problems. There is a lesson here – I want to caution researchers who collect and analyse data on utilisation to beware of distortions of figures pertaining to utilization.

Like ETV, STV and HETV programmes are also not being utilised optimally by students. Televised instruction has become static – programmes are being produced and telecast without looking into the objectives to be achieved. No serious effort is being made to improve the system. On the other hand, the Government is planning to extend the service to more and more schools in rural and urban areas! VCRs are being provided to teachers for educational purposes!

It is too early to comment on IGNOU telecasts. This is a different case, as IGNOU programmes are syllabus-based and cater to, besides general public, a special group of learners. The programmes supplement the self-instructional texts already despatched to them. The use

of television programmes however depends on the learners' access to the television set, satisfaction of their needs, and also the quality of programmes.

The utilisation of educational programmes, whether minimum or optimum, reflects on the perception of the user teachers and learners towards the programmes. Whether these programmes are interesting enough, are helpful in the teaching-learning process, etc., are considerations that affect the utilisation pattern.

By and large, television is being used as a routine and conventional resource. It has failed to compete with other resources – printed text, face-to-face teaching, laboratories, etc. In other words, television has yet to be taken and used as a powerful resource to meet well-defined objectives. No educational telecast service – ETV, STV or HETV – has so far achieved substantially as an agent of improvement in our educational system.

A weak link in the utilisation of school telecast is the lack of communication among those who are involved at the different stages of the entire process – planning, producing, telecasting, evaluating and utilising the services. Media planners, researchers, producers, engineers, educational administrators, teachers and learners are confined to their watertight compartments. They hardly make any effort to sit together to find ways and means for making television service a success. Broadcasters think that their job is to produce and telecast programmes while teachers/educators think that they are not concerned with these programmes. Producers prepare programmes without taking teachers and learners into consideration or confidence. Even a producer and a researcher working in the same institution do not talk to each other on the utilisation and quality of programmes. They do not decide on any specific purpose to be achieved through the use of television. The purpose should, obviously, be linked with the problems faced by the education sector or with the changes we wish to bring about in our educational system. We have to use this resource for a well-defined purposeful effect.

Whatever be the reasons, under utilisation of the programmes is a wastage of immense proportions. No country can afford to waste a resource in such a way, as producing programmes, particularly for television, requires costly resources.

8. DISCUSSION

The discussion on and the analysis of facts indicate that India has the technological infrastructure to reach and teach individual learners throughout the country. Due to the service rendered by the indigenous satellite and the network of ground facilities, it is possible to transmit television messages to most parts of the country. This feature of the television medium has great implications for distance education system. Having presented a general, though brief, review of the status of television service in India, let us now consider the following suggestions to use television effectively for infor-

mation, instruction and education.

i) Televised teaching should not be taken as a routine activity. Television, being sophisticated and costly, should be used to effect existing educational practices successfully over large areas and covering large numbers. It should be an integral part of the national educational reform schemes, new teaching-learning approaches, new curriculum, new textbooks, and new roles and training methods of teachers. It should be taken as a challenge to and a potential competitor of the traditional teaching methods – face-to-face, printed books, blackboard, etc. The users, teachers and students, should know the reasons and purposes for the introduction of televised instruction and everybody, as a team, should ensure that the purposes are achieved substantially. For this, television needs to be used intensively, so that outputs are tangible and explicit.

ii) Similar to the preceding suggestion, but moving a step ahead of it, distance education institutions should undertake some experimentation, even on a small-scale, in achieving/meeting specific objectives through the use of various electronic devices. For example, teleconferences, talk-back facilities, electronic blackboard, teletext, etc., can be used to make two-way communication a success. Fortunately, our scientists are capable of providing talk-back facilities through satellite. Talk-back facility at a few selected study centres can be of great help to students – they can ask questions and get their replies immediately. Talk-back facility can certainly enhance the effectiveness of television-based teaching at a distance.

Videophone, enabling learners to see their tutors, may become one of the mass-selling electronic products which may prove a very effective tool for pedagogic interaction. The price and availability of such technology, however, will be an important deciding factor for its educational use.

Satellite provides facilities for organising teleconferences. Space Applications Centre, Ahmedabad, has done some experiments in organising teleconferences in the country. It is therefore possible to organise periodic teleconferences for students engaged in higher education.

The provision of teletext facility at domestic, community and study centre viewing venues can make distance education more efficient and lively. Distance education institutions should come forward and exploit the potential of teletext service for educational purposes. Two possibilities are quite obvious.

a) Open universities have a network of study centres equipped with electronic devices. Television sets available at study centres can be equipped with decoder facility. Personnel at study centres – coordinators, counsellors, evaluators and students,

can recall relevant information transmitted for them. Students can come and make use of the facility as and when needed.

b) As per the latest information available, there are 50,032 community television sets installed at public places and in primary schools in rural areas including the North-eastern region (Audience Research Unit, 1991). Thus on an average we have one television set for 10 villages. Each community viewing centre can function as a 'mini-study centre' for distance learners and, for that matter, all villages. Those sets can be equipped with the decoder facility. Besides viewing programmes telecast by the UGC and the IGNOU, learners can seek relevant information through the teletext also. The learners from nearby villages (without community sets) can also derive benefit from such a facility.

Teletext service can overcome many administrative problems of all those who are involved in teaching-learning activities. For this, *Doordarshan* and open universities should come to an understanding about how best teletext may be used. At regional levels, Regional Directors (in the case of IGNOU) can coordinate with local *Doordarshan Kendras* and ensure that information about admissions, examinations, despatch of courses, counselling, etc. is transmitted timely.

iii) One of the main objectives of an open learning institution is to make education more accessible to a large section of society. Community viewing scheme (CVS) can serve as a nodal device for dissemination of information to an unlimited number of users at the grass roots level. CVS should, therefore, be strengthened and streamlined by pooling the relevant resources to create an appropriate learning environment, so that CVS may be an appropriate venue for not only the distance learners of open universities but also the various other teaching-learning activities, e.g., National Adult Education Project, Indian Population Project, etc. Coordinated efforts by user agencies can make education easily accessible to the learners at grass roots.

iv) Television is a potential medium of imparting training if it is properly planned and implemented. Training, refresher and orientation courses for various functionaries of an open university – course writers, counsellors, faculty, etc., can be conducted through multi-media packages including television as an important component. The experience of NCERT (National Council of Educational Research and Training) in conducting training programmes for primary school teachers should prove valuable for higher education as well. Regular/continuous and/or periodic training courses also can be organised using TV as a major medium.

- v) The in-house formative research should be strengthened to take definite decisions on the design, development, dissemination, revision and evaluation of instructional materials. This type of research in the Indian context will be more useful as we do not know much about our target learners scattered all over the country. The same formative researchers can undertake summative research also as per the requirements of the institution concerned. A media committee/forum with a broad-base including media experts, technical experts, educationists, etc., needs be formed to support and guide formative research activities.
- vi) It should be possible for IGNOU to reach its learners in neighbouring countries – Bangladesh, Maldives, Nepal, Burma, Sri Lank, etc. through satel-

lite-based broadcasts. But it needs favourable policy decisions by the Government of India, who have already been thinking about beaming Indian television programmes to various countries of West Asia. *Doordarshan* programmes are already being shown on Maldives television (*Times of India*, November 20, 1991)¹².

To conclude, though educational television has made reasonable progress in India, given the economic and technological constraints that the country works under, it is still in a state of infancy – the potential of television as an educational medium has yet to be realized fully, the related two-way access has yet to reach the desirable level and educational reforms and innovations have yet to reach a stage that should see ETV in full bloom. We have a long way to go.

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