

CHAPTER - VI

Feedback on IGNOU Teleconferencing

6.0 Introduction

Chapter VI deals with the details about objective V of the present investigation, which is, to study the feedback on IGNOU teleconferencing (TC) programmes regarding attendance, technical - non-technical difficulties, level of interaction, as well as, views of coordinators with respect to various aspects of IGNOU - TC.

6.1 Sample

The sample for feedback consisted of all those IGNOU centres where, both, the two-way audio as well as one-way video facilities were available. Out of 102 centres, 21 (Centre Co-ordinators, both regional and study centres) responded to the feedback proforma from 1998-2000.

6.2 Instrumentation

The feedback proforma has been constructed by the investigator to assess reach, extent, viewing conditions, and utility of the interactive teaching-learning strategy, that is, TC programmes by the receiving centres.

6.2.1 Description of Feedback Proforma

For the construction of feedback proforma, the investigator personally observed TC programmes from receiving ends. Based on the observations, related literature and discussions with the area experts, the items for proforma were developed. Before finalizing the tool, these items were checked by the area experts. The feedback proforma was divided into two sections.

Section A dealt with the information related mainly to background of the receiving centre(s). This included name of the centre, course / subject, name for which TC programme(s) were transmitted, number of learners, academics and other functionaries present at the centre during TC programme, technical and non-technical problems and so on.

Section B comprised of the items mainly related to the views of centre-coordinators regarding IGNOU-TC programmes with respect to – Motivation, Participation, Quality, Utilization, Benefits, and Suggestions / comments.

The detailed description regarding these aspects is presented here under:

6.2.1.1 Motivation

Here information regarding how learners could be encouraged to attend the TC programmes, multiple choice questions were constructed. At the end, with an open ended question other information which the coordinator felt was relevant, were collected.

6.2.1.2 Participation

In this section multiple-choice questions were developed on how to enhance participation of learners in the question-answer session. Also, coordinator's views were noted through an open-ended question.

6.2.1.3 Utilization

Under this section, reasons concerning the under utilization of TC programmes in terms of low attendance of learners, technical and non-technical problems, administrative problems, timings of TC programme, etc. were documented.

6.2.1.4 Benefits

This section presents views of coordinators regarding how TC allows better management of human resources, communication, time, travel, meetings, conferences, etc. as benefits of TC.

6.2.1.5 Suggestions / Comments

Here their opinion were gathered, regarding the most suitable IGNOU subjects or courses where TC as a teaching-learning media/strategy could be used according to them. Further, their suggestions concerning the specific steps to be implemented to improve the existing IGNOU TC were noted.

At the end of each section, co-ordinator's views or any other relevant points, which might have been missed with respect to each section, were also noted by open ended questions.

6.2.2 Procedure of Data Collection

In order to gather information from as many IGNOU Centres as possible (where TC facility was available), centre co-ordinators were sent feedback proforma by post. Along with the proforma, a covering letter containing the purpose of proforma was attached.

Co-ordinators were assured that the information collected would be used only for research purpose and would be kept confidential.

Investigator used to check the filled proforma as and when they were received. To those centres from where half-filled proforma were received, fresh set of proforma were sent, which were to be duly filled by them.

IGNOU Centres were also sent reminders by fax and e-mail whenever required, for returning the duly filled proforma.

6.3 Analysis and Interpretation of the Data

The data were analyzed mainly qualitatively followed by quantitative analysis. The responses to open-ended question(s) were put under the formed categories. Under quantitative analysis, frequency and percentage distribution were used.

Questions pertaining to background information, technical and non-technical aspects of TC programmes as well as multiple choice questions of aspects like motivation, participation, utilization and benefits were analyzed using frequency and percentage distribution. These are presented here under.

6.3.1 Feedback: Background of Receiving Centres

The analysis of feedback from receiving centres with respect to background details of different receiving centres was based on the number of filled-in feedback proforma received. These proformas were with respect to TC programmes of different IGNOU subjects from the period of January 1999 to February 2000.

The total number of filled-in feedback proforma received were 520 from 21 receiving centres. The maximum forms were received from Calcutta (89) and Cochin (82). The lowest from Hamirpur, Karnal, Kullu (1 each), Dharamshala (2), and Shillong (3).

- Out of all the nodal centres (TC receiving centre) of IGNOU, only 21 (regional as well as study centres) responded to the feedback proforma. The centres from where feedback were received for TC programmes were - Ahmedabad, Bangalore, Bhopal, Bhubaneshwar, Calcutta, Chamba, Chennai, Cochin, Dharamshala, Ghaziabad-Delhi-II, Haldwani, Hamirpur, Jaipur, Karnal, Kullu, Lucknow, Patna, Puna, Shillong, Shimla and Vadodara.
- Further, the background details of receiving centre includes the attendance of learners as well as various functionaries. It also includes the

number of phone and fax received by different receiving centres as well as the audio-video quality of TC programmes. The analysis of attendance, number of phone/fax received as well as audio-video quality was compared using mainly frequency and percentages. These are presented in a tabular form followed by text and are given here under:

6.3.1.1 Feedback on Attendance

The details of number of learners, academic counselors, study centre and receiving centre functionaries attending the TC programmes in the respective receiving centres are analyzed using frequency. These are presented in a tabular form along with the text as follows:

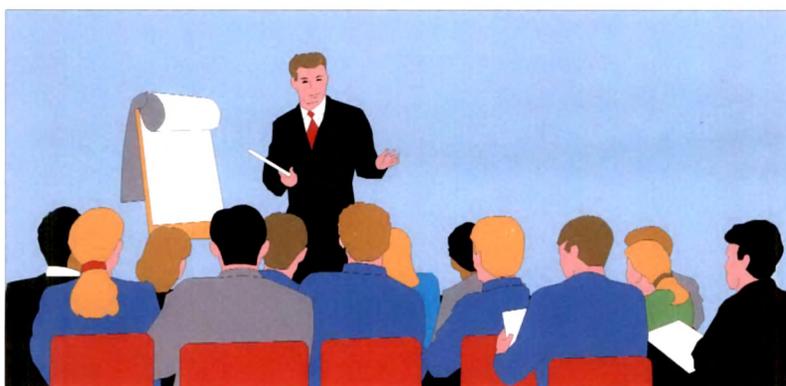
Table 6.1: Attendance of learners, academic counsellors, regional and study centre functionaries

Sr. No.	Receiving Centres	Frequency of attendance of Learners	Frequency of attendance of Academic counsellors	Frequency of attendance of Regional/Study centre functionaries
1.	Ahmedabad	65	13	74
2.	Bangalore	123	0	Not reported
3.	Bhopal	15	0	4
4.	Bhubaneshwar	10	0	6
5.	Calcutta	371	22	122
6.	Chamba	21	33	42
7.	Chennai	40	0	97
8.	Cochin	104	3	174
9.	Dharamshala	9	0	7
10.	Ghaziabad (Delhi II)	31	0	Not reported
11.	Haldwani	28	6	32
12.	Hamirpur	5	0	9
13.	Jaipur	62	0	Not reported
14.	Karnal	4	0	18
15.	Kullu	2	1	5
16.	Lucknow	20	0	49
17.	Patna	99	2	80
18.	Pune	18	2	75
19.	Shillong	0	2	18
20.	Shimla	61	10	97
21.	Vadodara	89	0	70
	TOTAL	1177	94	979

6.3.1.1.1 *Attendance of Learners*

Frequency of learners from all the 21 receiving centres was 1177. The frequency of learners in Calcutta was the highest (371), then Bangalore (123), Hamirpur (5), Karnal (4) and the lowest in Kullu (2) and Shillong reported zero presence of participants (see in table 6.1).

The total number of participants in a given centre which responded on a given day never exceeded nine. Usually the number was nil, and on an average was less than five. Students, by and large, were found to be not attending most of the sessions. Whenever they did so, they were between 1 to 5 in number.



6.3.1.1.2 *Attendance of Academic counsellors*



The total frequency of reported academic counsellors was 94 out of which the highest was in Chamba (33) followed by Calcutta (22), Ahmedabad (13) and Shimla (10). In many receiving centre, presence of zero academic counsellor were reported (see table 6.1). In very few receiving centres, academic counsellors attended the TC programmes and in most of the centres, they almost never attended as per feedback received.

6.3.1.1.3 *Attendance of Regional and Study Centre functionaries*



Out of 21 reported centres, 3 centres (Banglore, Ghaziabad - Delhi - II and Jaipur) did not report about the attendance of Centre functionaries.

The frequency of centre-functionaries in Cochin was the highest (174) then Calcutta (122), Chennai and Shimla (97 each). The lowest was reported by Bhopal (4) and Kullu (5). The total frequency of centre functionaries was 979. (See table 6.1)

There was a standard response of 1 to 3 Study Centres or Regional Centre functionaries attending the TC programmes on all the days as per the feedback received. This, however does not seem quite authentic nor does it serve much intended purpose for they were usually not the intended audience nor did they seem to participate or interact.

6.3.1.2 Interaction between Teaching and Receiving End

The data for the frequency of interaction were collected at both the ends – teaching end which was at Maidan Garhi, EMPC IGNOU and the receiving ends which were the nodal centres where TC facilities was available.

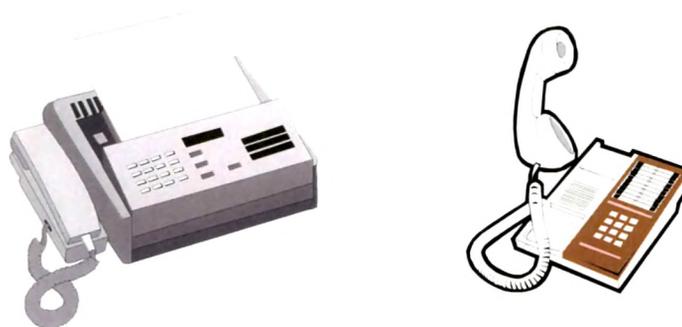
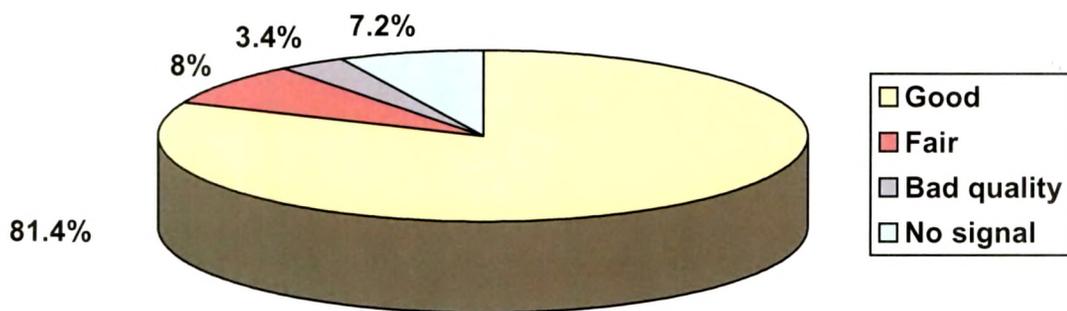


Table 6.2: Frequencies of questions asked by different receiving centres

Sr. No.	Receiving Centres	Frequency of questions asked through	
		Phone	Fax
1.	Ahmedabad	40	7
2.	Bangalore	-	-
3.	Bhopal	-	-
4.	Bhubaneshwar	-	-
5.	Calcutta	44	15
6.	Chamba	-	-
7.	Chennai	2	4
8.	Cochin	4	30
9.	Dharamshala	-	-
10.	Ghaziabad (Delhi II)	1	6
11.	Haldwani	25	-
12.	Hamirpur	-	-
13.	Jaipur	-	-
14.	Karnal	-	-
15.	Kullu	-	-
16.	Lucknow	-	-
17.	Patna	45	24
18.	Pune	3	-
19.	Shillong	-	-
20.	Shimla	24	27
21.	Vadodara	-	-
	Frequency	188	113

The graph 6.1(a) indicates that out of the total reported feedback, 84 percent reported video quality to be good, 6.2 percent reported fair, whereas, 3.4 percent to be bad and 7.2 percent reported of no signals received.

Graph 6.1(b): Percentage Distribution of Audio Quality of IGNOU TC



About the audio quality, the graph 6.1(b) indicates that, 81.4 percent reported audio quality to be good, 8 percent reported fair, 3.4 percent to be bad and 7.2 percent reported of no signals received.

Out of all the nodal centres, the audio-video quality in Ahmedabad and Jaipur was bad for most of the times and Centres at Bhopal, Calcutta, Chennai and Patna reported non reception of signals or electricity failure for some of the programmes.

6.3.2 Views of Receiving Centres' Coordinators Towards Different Factors of TC

The views of different centre coordinators of respective receiving centres were analysed with respect to factors such as motivation, participation, utilization and benefits. The views of coordinators with respect to close ended questions were analysed using frequency and percentages followed by the open ended

question as "Any other", where, the suggestions regarding respective factors were sought by the coordinators. The views of coordinators with respect to each factor are presented in a tabular form followed by the text which is as follows.

6.3.2.1 Motivation: Ways of enhancing learners' participation

Here the coordinators views towards ways to motivate learners to attend TC programmes were analysed using frequency and percentages followed by their suggestions. These are presented here under.

Table 6.3: Frequency and Percentage of coordinators' views on "ways to motivate learners to attend teleconferencing programmes"

N=21			
Sr. No.	How learners could be motivated to attend teleconferencing programmes	f	%
1.	Orienting learners about teleconferencing and the IGNOU programmes.	21	100
2.	Training learners to use the apparatus and equipment (e.g. Telephone, fax; TV etc.) used for teleconferencing	15	71.4
3.	Increasing the frequency of teleconferencing programmes	17	80.9
4.	Increasing time duration of teleconferencing programme	16	76.1
5.	Providing latest information about the subject	19	90.4
6.	Use of more audio-visual aids	18	85.7
7.	Any other: (i) Informing about TC schedule in advance (ii) Training of RCs/SCs (iii) Increase in time duration of talkback session (iv) Providing separate phone/fax in viewing room		

From table 6.3, it is evident that almost all the coordinators believed that orienting learners about tele-conferencing and IGNOU programme was absolutely necessary (foremost thing) to motivate learners to attend TC programmes.

Eighty five to ninety percent believed that by providing the latest information about the subject and more use of audio-visual aids would also help in motivating learners.

Further, a majority (80 percent) of the coordinators reported that by increasing the frequency and duration of TC programmes especially talkback session, can enhance the attendance of learners.

They also suggested that art of using phone and fax and television are important factors to motivate not only learners but also personnel of study centres and regional centres to attend TC programmes. For example for asking question during talkback session, one should first introduce oneself by telling his/her name and centre, then ask the question in a precise manner. Also when using fax, instead of sending individual questions, common questions be pooled and then faxed to the teaching end.

Coordinators also suggested that information about TC schedule in advance and provision of separate phone and fax in viewing room are important factors for enhancing the attendance of learners in TC programmes.

6.3.2.2 Participation: Ways of improving Talkback session

Here the coordinator's views towards different ways to enhance participation level of learners in talkback session were analysed using frequency and percentages followed by their suggestions. These are presented here under:

Table 6.4: Frequency and percentage of coordinator's views on "ways to increase the participation of learners in talkback (question-answer) session of teleconferencing programmes".

N=21

Sr. No.	How participation of learners can be increased in talkback (question-answer) session of teleconferencing programmes	f	%
1.	Resource persons should have lively personality	14	66.6
2.	Cross-questioning the learners (Interactive style of presentation)	19	90.4
3.	Increasing the length of talkback session	19	90.4
4.	Giving short and precise answers to learners	15	71.4
5.	Giving chance to learners of all the nodal centres in talkback session	18	85.7
6.	Any other : (i) Allotment of zone-wise or Regional Centrewise time for talkback session. (ii) Phone and fax in TV rooms (iii) Resource person should try to give answers in the same language in which learners had asked.		

It can be seen from table 6.4, that the majority of the coordinators reported that by increasing the length of the talkback session and giving chance to learners of all the receiving centres by using interactive style of presentation, the participation level of learners might be enhanced in talkback session. They felt that resource persons should have lively personalities and should be able to give short and precise answers to learners during talkback session so that more number of questions could be answered. Further, coordinators suggested that resource persons should try to answer in the same language in which participants had asked the questions.

6.3.2.3 Reasons for Under-Utilization

Here the coordinator's views towards reasons for under utilization of existing TC programmes are analysed using frequency and percentages and described here under.

Table 6.5: Frequency and percentage of coordinator's views on "reasons for under utilization of teleconferencing programmes".

			N=21
Sr. No.	Reasons for under utilization of teleconferencing programmes	f	%
1.	Lack of orientation to learners	19	90.4
2.	Lack of motivation to learners	19	90.4
3.	Learners not being informed well in advance (sometimes)	18	85.7
4.	Due to technical problems	17	80.9
5.	Due to non-technical problems	18	85.7
6.	Quality of programme being not good due to less use of teaching aids	19	90.4
7.	Quality of programme being not good due to less use of teaching methods	19	90.4
8.	T.V. set being small	3	14.2
9.	T.V. set being not functioning properly (sometimes)	5	23.8
10.	Non-availability of service engineers	17	80.9
11.	Lack of proper seating arrangement for participants	11	52.3
12.	Unavailability of fax-machine	8	38.1
13.	Unavailability of STD phone	5	23.8
14.	Administrative problems	17	80.9
15.	Time table or teleconferencing schedule being not sent in time to Regional/study centre	18	85.7
16.	Lack of planning and preparation for teleconferencing programmes	20	95.2
17.	Centre for teleconferencing being very far from house.	14	66.6
18.	Unsuitability of teleconferencing timings for distance learners	15	71.4

It is evident from table 6.5, that the maximum number of coordinators reported that due to lack of planning and preparation for teleconferencing programmes as well as lack of motivation and orientation of learners lead to the under utilization of TC programmes.

Inappropriate and less use of teaching aids and methods were also causes of concern. Other reasons contributing towards under utilization of TC programmes were technical, non-technical and administrative problems, non-

availability of service engineers or technical person and late reception of TC time schedule by regional centres, study centres and learners.

It was also reported that many learners do not attend TC programmes as the distance of receiving centre is far from their homes and also the timings of programme transmission is not suitable.

Very few coordinators reported that the unavailability of fax or phone in the viewing room and improper seating arrangement led to the underutilization of TC programmes.

6.3.2.4 Benefits of Teleconferencing for Better Management

Here coordinator's views towards benefits of TC for better management are analysed using frequency and percentages and are presented as follows.

Table 6.6: Frequency and percentage of coordinator's views on "benefits of teleconferencing for better management".

N=21			
Sr. No.	Benefits of teleconferencing for better management	f	%
1.	Human resources	15	71.4
2.	Communication (teaching-learning process)	18	85.7
3.	Information float	17	80.7
4.	Time	19	90.4
5.	Travel	20	95.2
6.	Meetings / conferences / counselling	19	90.4
7.	Any other : (i) Technology merger (ii) To reach geographically dispersed learners is no problem by the use of this technology but unfortunately TC technology is not fully exploited. To utilize it fully we need to give some training to Resource persons and rooms should be made sound proof. An extra person be deputed to take care of TC programmes as coordinator do not get time to look into every aspect of IGNOU. For this, person should be paid and not on the basis of honorarium.		

Table 6.6 indicates that almost all the coordinators believed that teleconferencing helps in enhancing teaching-learning process especially for distance learners where it is difficult for experts to reach all the students due to various factors, such as, lack of time, travel and money, etc. as learners are sporadically spread in distant geographical places. It also helps in the better management of human resources and counselling the learners.

6.3.3 Comments Received from Centre Coordinators of Different Receiving Centres

The specific comments of the Centre coordinators and functionaries towards IGNOU TC programmes are mentioned centrewise and is presented as follows.

6.3.3.1 Comments of Centre Coordinators and Functionaries of Bhopal Centre

Their comments are as follows:

- Frequent audio signal disturbances.
- More motivation is required for the students to attend the teleconferencing.
- If the TC is transmitted through the cable network, instead of Regional Centre and Study Centre, it will reach at their door-steps. It will save the huge amount of money being spent to pay the staff for its conduct since TC is to benefit the students, not the staff.
- Message displayed on screen that "standby for IGNOU transmission" - No picture and voice relayed after 12.00 pm.
- Students may be informed and motivated to take the benefit of such useful support service.
- Telephone lines were down hence could not contact on phone.

6.3.3.2 Comments of Centre Coordinators and Functionaries of Calcutta Centre

Their comments are as follows:

- Kindly send the schedule well in advance.
- One Professor while explaining/delivering tele-lecture was "moving around and standing" and delivering the matter . This type of movements are good and lively and this should be encouraged.
- Resource persons names may please be shown on TV screen after every ten-twenty minutes.
- Presentation of contents was not upto the mark; and questions were not properly answered.
- If there is any equipment failure, it should be made known to the RC's beforehand.
- Preference should be given to the callers from outstation.
- The audience at the studio could be instructed to put the questions in brief instead of airing their views and thereby talking during half of the interaction period. Since the Resource person is physically present in the studio interested persons from the audience can discuss with the Resource person after the teleconferencing unless it is so vital for the audience at the other side / or faraway receiving stations/centres.
- It was indeed good to see a panel of Resource persons/experts. But the presentation was like a discussion which more or less interrupted the flow of the delivery of the subject matter, perhaps it would have been better if each Resource persons/expert covered a sub-title under the same topic or after other.

- To put it in another words: it was like three bulky persons trying at the same time to get into a room through a narrow door.
- The schedule must be sent well in advance.
- Sometimes telephones and fax machines went out of order, so in such cases we were not able to inform the students.
- In the feedback format a column for Resource person's name should be mentioned, so that the RC/SC people may be bound to open TV. They are claiming money without taking any pain. One more point, the information should come well in time, so it should be sent to Study Centre (SC) and students.
- The TV sets are more than 10 years old. At least one larger screen TV set would be of great use at the Resource centre.
- Experts should be good in using OHP (transparencies).
- The telephones at the studio and at the Regional Centre were out of order.
- Unlike the other resource persons, Dr Annelje had put 2 sets of questions to the students of this subject and then asked them to answer them in 10 minutes. That way she not only created a classroom situation but also made them think. "Deductive method" was used during teleconferencing, which was indeed good. Moreover, she answered all the questions clearly and in a friendly way. That satisfied all the learners. The two sets of questions were introduced at the beginning of the teleconferencing. In such a situation an academic staff has to be present there and has to really coordinate the whole lot.

- It was very difficult to send the questions through fax. It was good that alternative fax numbers was given. STD were answered by experts promptly.
- There is no STD facility in some SC of Calcutta.

6.3.3.3 Comments of Centre Coordinators and Functionaries of Shillong Centre

Their comments are as follows:

- More such teleconferencing activities in collaboration with Premier Institute should be organized. This gives immense publicity to the activities of our universities.
- We have written to the students individually to attend the teleconferencing programmes, but the response we get from the students is very poor.

6.3.3.4 Comments of Centre Coordinators and Functionaries of Cochin Centre

Their comments are as follows:

- If at all you/resource persons are using slides or transparencies, then it should be clearly made.

6.3.3.5 Comments of Centre Coordinators and Functionaries of Chennai Centre

Their comments are as follows.

- The EMPC should set the equipment properly. We will not be doing enough justice, if the outside agencies use our TC facility and the A/V quality continues to be poor like this.
- Most of the audio-video quality is poor. The participants could not hear the voice from participants of the other RCs.

- Audio-video quality should be improved. A new receiver should be provided at the RCs. 29" TV should be approved for the SC.

6.3.3.6 Comments of Centre Coordinators and Functionaries of Haldwani Centre

Their comments are as follows.

- Provision for Generator at Study Centre.
- More participation of students required.

6.3.3.7 Comments of Centre Coordinators and Functionaries of Ghaziabad (Delhi - II) Centre

Their comments are as follows:

- Generator facility should be provided.
- Teleconference room should be air-conditioned.
- More time should be given for interaction with Regional centres.
- Some reading materials should have been provided well in advance to the academic counsellor so that they could come prepared for discussions.
- It would be good if the screen is big or a projector screen is used for teleconference. The chairs should be comfortable and teleconference room should be airconditioned.
- Quality of the slides should be improved.
- The arrangements made for the teleconference were excellent. IGNOU has done a commendable job.
- Number of participants should be increased in future.
- Some incentive like certificate should be issued/given to those who attend maximum or substantial number of TC programmes in a subject.

6.3.3.8 Comments of Centre Coordinators and Functionaries of Jaipur Centre

Their comments are as follows.

- The quality of video and audio is not good.
- The teleconference schedule should reach us well in advance, at least 7-10 days in advance.
- Question-answer session should be of longer duration.
- We should know the topics before hand so that participants can come prepared.
- The dates of next TC sessions should be announced in the present session as the information from RC may get delayed.
- The sessions should be rather practical instead of theoretical because it is not very interesting.

6.3.3.9 Comments of Centre Coordinators and Functionaries of Patna Centre

Their comments are as follows:

- None of the learners come during term examinations. Therefore, do not schedule TC programmes during any examination time.
- It would be better if our teleconferencing schedule can be informed in advance through normal hook-up i.e. on Monday, Wednesday and Friday every week.
- Students need information well in advance.
- Poor attendance due to not getting information in time.
- Telephone was out of order.

- Generally very few students attend TC. Thus it can be discussed among all the schools that TC programmes should be made compulsory for learners (which may/will benefit learners also).

6.3.3.12 Comments of Centre Coordinators and Functionaries of Kullu Centre

Their comments are as follows:

- Fax has not been functional in Telegraph office of Kullu.

6.3.3.13 Comments of Centre Coordinators and Functionaries of Dharamshala Centre

Their comments are as follows:

- Signal receiver meter is non-operational and signal is poor and it requires immediate repairs and some technical person/engineer may please be deputed to rectify the signal meter, receiver fault.
- Most of the times no response or acknowledgement received for a faxed question. Distance learners feel demotivated.
- A little more liveliness and easiness would add to the usefulness of the programmes.

6.3.3.14 Comments of Centre Coordinators and Functionaries of Bhubaneshwar Centre

Their comments are as follows:

- Acoustics of the room where we organise TC at this Centre is very bad. As a result of which students have difficulty in comprehending the presentation.
- Generally good. Some of the Resource persons need to be more 'Camera-friendly'.

- MLIS students are having their counselling and therefore not many of them turned up.
- Students did not feel satisfied with the response to their questions - many of the questions were not replied to. The students feel encouraged if the questions sent by them are individually acknowledged. This was not done. Only a 'general' kind of acknowledgement was made. My own feeling is that the 'Anchorperson' should invariably be someone from IGNOU so that he/she can understand the questions asked by our students in the right perspective.
- This programme has not been activated in this region, so we did not participate in the sessions today.

6.4 Findings and Discussion

The analysed data indicate that the number of learners attending TC programme was very thin. It varied from nil to 5 in most of the receiving centres from where feedback was received. The attendance of academic counsellors and functionaries at Study centre as well as Regional centre was also very poor which again ranged from nil to 3 per day of TC programme. Further, the interaction of learners through phone or fax to the teaching end was also found to be very less. However, the data analysed showed that the quality of audio and video was good in more than eighty percent of the programmes.

All the coordinators viewed that orientation about TC programme to the learners is important to motivate the learners. Further, a majority of them (90.4%) viewed that by increasing the length of talkback session and by cross-questioning (interactive way of presentation) the learners during TC programme, the participation level of learners would increase in talkback session. Also, the basic

facility of phone and fax in the viewing room is necessary to enhance participation level of learners. In addition to this, more number of telephone lines at teaching end which may reduce the problem of "constant-engaged" lines of telephone at teaching end can help in increasing the participation level of learners. The reasons for under utilization of TC given by the coordinators were mainly lack of planning and preparation (95.2%) and lack of orientation, motivation as well as due to less use of teaching aids and different teaching methods (90.4%).

Lastly, coordinators viewed TC as a potential mode of teaching-learning provided receiving ends get schedule of TC on time, orientation about the use of TC as well as if at all, attendance in TC can be made mandatory for IGNOU learners.

Comments of different receiving centres' coordinators' on the basis of open ended question are presented as follows:

- Transparencies (TPs) used long complex sentences.
- Presenters used rhetorical traditional and rigid presentation style.
- TC schedule doesnot reach us at time so how can we inform learners about the programme.
- To what extend things can work excellently on honourarium basis... we need to have a full time personnel deputed for TC.
- Why should learners waste time when it is neither mandatory nor holding extra credits for them to attend TC programmes.

An efficient and effective TC programme implementation depends upon feedback from receiving centres. Spontaneous feedback from receiving centres /

centre coordinators to the teaching end or production unit acts as an effective watchdog for improvement of TC.

The interpretation and findings of feedback on IGNOU TC indicated that despite the inherent potentials of TC itself and positive views of centre coordinators, the acceptance and adoption of TC has been rather low, which could be noticed by the extremely thin attendance of the learners as well as that of centre functionaries. Lack of awareness about the potentials of this technology, orientation about the technology and facility could be some of the responsible factors. *Wetzel et al.* (1997), stated that technological dissatisfaction could be the result of students having difficulty operating the necessary equipments. Further, lack of support infrastructure like telephone or fax and inadequate interaction time as well as trained human resources could be some of the main factors responsible for the slow diffusion of TC technology as a learning mode. For distance learners as well as centre functionaries, acceptance and effective use of TC requires timely information about TC programme schedule and proper orientation towards this technology.

Further, they need to be trained to put questions / comments correctly over telephone. Some of the participants either fumble or ask questions not related to the session or TC programmes. This could be avoided by encouraging the use of fax (provided the fax machine is installed and is accessible to learners in the respective centre). Moreover, result of another study showed that some learners felt quite at ease and comfortable while asking questions through fax rather than telephone. The reason could be that some passive learners feel inhibited in asking questions through telephone while the use of fax ensured anonymity which positively promoted interaction (*Ushadevi, 1997*).

Present investigation also indicated that dialing a telephone was very annoying and frustrating as the telephone lines were constantly engaged. To avoid this, as many receiving ends as possible could be involved by asking questions addressing to a specific receiving end. Further, a note of those receiving ends could be made which could not participate and efforts made to encourage learners to participate in talkback session from those nodal centres. This can be done by asking simple questions regarding programme content, relevancy, pace, delivery problems and instructional concern. Further, involve centre coordinator or functionaries to encourage learners to initiate in talkback.

Apart from the above, the reason for thin attendance could be the "flexibility of credit system". As in IGNOU there's no compulsion to attend TC programmes. This could be avoided by employing some of the regular assignments through TC or giving extra credits to those who attend regular TC programmes.