

COMMUNICATION

Using Satellite Technology for Special Orientation of Primary Teachers in Madhya Pradesh : A Study of Presentation Aspects and Production Values of Teleconferencing

DHARAM PARKASH and HARMESH LAL

Central Institute of Educational Technology, NCERT, New Delhi, India

Abstract : *In this study, the authors investigate the role of presentation and production aspects in the effectiveness of teleconferencing sessions for teacher training. The authors found that language, presentation style and materials have direct impact on the teleconferencing sessions. The pace of presentation, clarity of graphs/charts/text used and teaching aids have a bearing on teleconferencing. The sessions should look natural and not as a stage managed show. The design of the sessions should ensure active participation of teacher trainees.*

Background

With the advent of new technologies like communication satellites, education is undergoing a welcome change. Experiments are being conducted to try out these technologies in education and to find out their effective mode of utilization in the Indian context.

Television broadcast has been an effective medium of communication with a large and diverse audience. Numerous experiments/research studies have pointed out towards its effective use in the distance education mode. The only problem the distance teachers were facing was that of interactivity. Television broadcast by its very nature is a one way medium. With the advent of communication satellites, it has been possible to make television broadcast interactive. In an ideal interactive situation using satellite technology one would not only be able to view the programme but will also be able to interact with

resource/persons at the transmission end, using talk-back facilities. The interactive communication system has been transformed into a more workable one, namely; one-way video and two-way audio. Using an ordinary telephone line, the viewer/student is able to ask questions, raise queries and express doubts. The resource person sitting at the transmission end can also listen and clarify all such queries, doubts, etc., instantaneously. In the process those who have similar queries or doubts can also get answers. In case they have some more/additional queries they can raise supplementary questions. Fax facilities if available, can be used for sending supplementary doubts/queries at the transmission end.

Inservice training of primary schools teachers involves a huge effort, as the number of primary teachers to be trained is very large. With the existing infrastructure and resources, it is very difficult to achieve the targets of teachers training. Keeping this in mind, NCERT conducted three experimental special orientation programmes for the primary teachers of the states of Karnataka and Madhya Pradesh.

Research studies were conducted on the effectiveness of satellite based orientation programmes. Most of these studies have focussed more on the achievement of the teacher training underwent the orientation programmes.

Most of the programmes that went on air were presenter/expert-based programmes or group discussions. Presenters used video clips, models, transparencies, written text slides, etc. while making presentation. Most of the studies that investigated effectiveness of such special orientation of primary teachers did not look into the presentation and production aspects of the programmes put on air in detail. It was therefore felt that there existed a need to study in detail about the presentation and production aspects of the teleconferencing sessions. Some of the questions, which kept on popping up, were as follows.

- Do presentation techniques have a role in enhancing the educational impact of the programmes?
- What sort of programmes/video clips would the students like to look at?
- How can we make them more relevant ?What should be the size of written text being shown so that the students are able to read it ?
- What should be the pace of presentation for an average student?
- What role does the language used by the presenters/experts play in enhancing the effectiveness?
- What sort of models/teaching aids should be used in the presentations?
- How can these programmes be made more learner-oriented?

Keeping in mind some of the above questions, a study was conducted with the help of Department of Teacher Education, NIE and Regional Institute of Education, Bhopal, during the Special Orientation of Primary Teachers in August 1996.

Methodology

The following important factors were identified which contribute towards the effectiveness of presentation and enhancement of production values .

1. *Language*: It was felt that the language used by presenters/experts play an important role in effective communication. Use of vocabulary, which the student is unable to interpret easily, could be an important factor affecting effectiveness of presentation.
2. *Presentation*: Some presenters feel comfortable before a camera while others tend to become camera conscious and look wooden .This affects the body language, clarity of thoughts,and flow of speaking of the presenters.Ultimately affecting the overall impact . Two other factors, which enhance the presentation, are the pace of speech and the clarity of voice.
3. *Material used by presenters*: The presenters use the materials for presentation which can be categorized into following groups :
 - Written text
 - Models/teaching aids/demonstration
 - Video clips /video programmes

Written text: The size of written text and the duration of its stay on the screen were felt to be major factors affecting the presentation. Also the amount of written text presented in one transparency/frame affected the effectiveness and understanding of presentation by the students.

Models and teaching aids: It was felt that the models and teaching aids presented with the help of locally available materials may be effective than those commercially available in the market.

Video clips/ programmes: Video clips/programmes integrated with the demonstration lectures may be more effective than those used in isolated manner. Also it was felt that the relevance of the video-clips to for communication and electronic set works have made it possible to make new kinds of experiences in the process of teaching and learning.

A questionnaire was developed on various aspects of the presentation and production values. The questionnaire was administered on 164 trainee teachers undergoing special orientation programme at different centres in Madhya Pradesh. Out of 45 participating DIETs, 25 DIETs were randomly selected for the above study. Further from each selected DIETs 5-7 trainee teachers were randomly administered the above questionnaire.

About Teleconferencing

This special orientation for primary teachers through teleconferencing was of seven - day duration. Everyday there were two sessions followed by an interactive question – answer sessions .The experts who presented in the morning sessions participated in the question-answer sessions also in the afternoon. The following themes were taken up in seven-day teleconferencing :

1. Primary education — present scenario
2. Minimum level of learning — strategies
3. Schools — readiness
4. Multigrade teaching
5. Introduction to operation blackboard (OB) material and their use
6. Language teaching
7. Hard spots in mathematics teaching
8. Teaching of environmental sciences
9. Teaching aids

Results

Table 1 shows the participation of respondents in the teleconferencing sessions.

Table 1 : Participation in all sessions (including interactive session)

Sl.No	Responses	Frequencies	%
1	Yes	140	85
2	No	21	13
3	N.R.	3	2
	Total respondents	164	100

85 per cent of the respondents attended all the sessions where 13 per cent did miss out some of the sessions. The above table makes it clear that most of the teachers who responded had experience of teleconferencing sessions.

Table 2 depicts the percentage of teachers who some faced difficulties in understanding the language used by the presenters.

Table 2 : Difficulties in understanding the language

Sl.No	Responses	Frequencies	%
1.	Yes	53	33
2.	No	108	65

65 per cent of the respondents had no problem in understanding the language of the experts/presenters. When asked about the difficulties in understanding the language used by presenters/experts, following reasons emerged :

- TV sound /programme sound not very clear
- Use of English and uncommon words
- Speakers' pronunciation not very clear
- Speed of speaking very fast and speedy removal of cards from the screen.

TV sound /programme may not be clear or may have disturbances due to poor reception /poor working condition of TV sets. Where as all other reasons are related to selection of presenters /experts and their orientation .

Table 3 clearly depicts that although 69 per cent felt that speed of presenters was appropriate still 27 per cent felt it was fast.

Table 3 : Speaking speed of presenters

Sl.No	Speed	Frequency	%
1	Fast	43	27
2	Appropriate	110	69
3	Slow	4	2
4	N.R.	7	3

The respondents were asked about the probable reasons for an effective presentation. They listed more than one reason. The reasons for effective presentation are as follows:

- Clear and concise thoughts (58%)
- Interesting and effective method of teaching (61%)
- Interesting parts of video film shown (46%)
- Useful and to the point teaching aids/models (75%)

It clearly indicates that the respondents gave a good weightage to video inserts and teaching aids /models. The respondents were also asked to list reasons for not being able to see picture clearly, their inability to understand the graphics etc., and not being able to read the graphics shown. The responses are shown in the following tables :

Table 4 : Inability in seeing the pictures of audio-video materials

Sl.No	Reasons	Frequencies	%
1.	Small and unclear pictures	45	28.5
2.	Clear pictures	116	70.0
3.	No Response	3	01.5
	Total	164	100

Table 5 : Reasons for inability to comprehend the picture of graphics

Sl.No	Reasons	Frequencies	%
1	Short span of time on screen	131	80
2	Difficult pictures	07	4
3	No response	26	16
	Total	164	100

Table 6 : Reasons for not being able to read graphics

Sl No	Reasons/Responses	Frequencies	%
1	Small size of words	63	40
2	Unclear words	16	09
3	No difficulty because of right size of words	79	48
4	No response	06	03

Table 4 clearly shows that 28.5 per cent of teachers felt that the graphics were small and not clear to them because of this reason, they failed to see the graphics clearly. Table 5 records the comprehension of the content of graphics by viewers. Most of them (80%) found that they were unable to comprehend pictures/graphics/written text because they stayed on the screen for a very short duration while some found the graphics difficult/complicated.

48 per cent of the teachers (Table 6) had no problems of readability of written text on the screen as they felt that it was of right size. But 40 per cent of the teachers could not read the written text on screen as they felt that size of written text was small. It is possible that some of them were at a distance from the TV set. The above data clearly indicate that pictures/graphics/ written text have a bearing on the effectiveness of presentation and production values. The following factors emerged clearly :

- Size and presentation of graphics/written text.
- Duration of stay of the graphics/written text on the screen.
- Size of the letters in case of written text on screen.

Table 7 : Materials used in presentation

Sl.No	Comments	frequencies	%
1.	Interesting and appropriate	99	60
2.	All Right	31	19
3.	Inappropriate and unuseful	4	2
4	Not available in the class	30	19

One of the comment that emerged from the above was that the viewers might not be able to relate to the teaching material was that material is not available in the classroom. Regarding the video clips/video programmes shown along with presentations following comments were received from the viewers :

- Clear and appropriate programmes
- Video programmes depicted ideal conditions (not real situations)
- Video programmes seemed to be urban bias
- Material shown not available in village schools
- Children in the video programmes looked trained
- Incomplete activities due to lack of time.

The above comments gave some indication towards making the video programmes/ clips more relevant to the viewers.

Opinions of the respondents were sought about the change in the existing structure of teleconferencing. The Table 8 clearly indicates towards making teleconferencing more teachers-oriented.

The teachers were also asked to list suggestions for further improving presentations and effectiveness of teleconferencing. Some of suggestions, which might have a direct

bearing, are as follows :

Table 8 : Change in structure (suggested) to approve the effectiveness of teleconferencing

Sl.No	Requirements	Yes (f)	No (f)
1	Need of few more teachers	95	12
2	Subject experts is sufficient	54	38
3	Presentation of experts view teachers	76	23
4	Less talks, more films	46	54
5	Only video films and expert at the time of question answer	38	28

- More video programmes/clips make programmes interesting.
- Village situation based video programming and equal representation to male/female teachers.
- Questions in interactive sessions should not be ignored.
- Presentation should have spontaneity (it should not look rehearsed).
- Materials shown in demonstrations should be available in the schools.
- Experts should have a clear voice and fluency in language.

Some of the suggestions made above also emerged earlier in the data collected and so assumed a greater significance in making teleconferencing more effective. The teachers were also asked about their participation in the interactive question-answer sessions.

Table 9 : Participation by teachers

Sl.No	Participation by	frequencies	%
1	All teachers	40	25
2	Few teachers	99	60
3	Programme incharge in place of teachers	13	8
4	N. R	12	7

Data presented in Table 9 show that enthusiastic teachers participated more in question-answer sessions. To ensure greater participation of more teachers a mechanism is to be devised. Most of the teachers felt that the duration of the question-answer sessions should be increased.

Inferences

The study provided some indicators towards improving the effectiveness of the teleconferencing mode for teachers training. Indicators that emerged are as follows:

- Language, presentation methodology and materials used by the presenter/expert do have a direct bearing on the effectiveness of the teleconferencing mode.

- Language used by the presenters/experts should be simple. If unknown words have to be used, they should be explained.
- Pace of presentation is another aspect that needs attention. Although only 30 per cent of the respondents felt the presentations were fast, strategies will have to be devised to slow down the pace or create breathing space in between presentations so that the all sections of the audience can catch up with the presentation. Alternatively, strategies like revision/recap after each presentation could be devised to slow down the pace.
- The material shown during the demonstrations should be available easily in the immediate environment of the viewer.
- Activities shown should not have an idealistic tone but a realistic tone e.g. depicting various ways of doing an activity in varied situations.
- Another thing, which came out of the study is written text presented by the experts. Most of the written slides were shown for very short time period and viewers were unable to comprehend them
- On the other hand, the clarity of writing and appropriate size of the text for enhanced readability was also not there. There is a need of studying this aspect of presentation in much more detail so as to find out the answers to the questions like what should be the size of written text if there 40-50 viewers on a TV set? How much time an adult viewer needs to read a line of text on TV?
- The responses of the teachers clearly indicate that the video programmes or video clips used in the programmes should be more teacher-oriented .It should also have spontaneity so as not give a stage managed feeling.
- The participation of teachers in the sessions had to increase to make them effective.
- The findings of the study indicate towards the need of training the experts /presenters in the art of television presentation.

[**Dr. Dharam Parkash** is Reader and **Harmesh Lal** is a faculty member. *Correspondence* : CIET, National Council of Educational Research and Training, New Delhi 110 016, India.]