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Video Teleconferencing as a Bridging Medium in Open and Distance Learning (ODL): Making it More Effective

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Abstract

This article presents the perception of various stakeholders regarding the effectiveness of teleconferencing Open and Distance Learning (ODL) practices to identify why the teleconferencing facility is not utilised optimally by producers, teachers/resource persons and students enrolled in various courses at Indira Gandhi National Open University (IGNOU). Many reasons like poor content selection, lack of multimedia applications in presentations, lack of proper training of experts/resource persons for video teleconferencing, the language of delivery, lack of proper information to study centres/students, no public assess of Gyandarshan-II and lack of orientation of study centres in charge/programmes in charge at study centres have been identified for ineffectiveness of teleconferencing sessions. The researcher suggests that measures, like the advanced scheduling of teleconferencing sessions required by courses, the use of an Short Message Service (SMS) alert service for students about the teleconferencing schedules of their courses, bilingual presentations and discussions, orientations for developing presentations for webcasts, selection of relevant, new and informative contents and promoting Gyandarshan-II through local media/popularising its availability through the Internet, will be helpful in utilising the strength of teleconferencing as a bridging media tool for distance learners.

Keywords: teleconferencing, open and distance learning (ODL), Indira Gandhi National Open University (IGNOU), communication technology

Introduction

In the current distance education scenario, teleconferencing not only facilitates a two-way interaction among individuals but also facilitates an impressive degree of interaction between the teacher and the learner. Actually, interaction is the biggest missing element in a distance learning system. In addition to providing a platform for two-way communication, teleconferencing is also a good medium for the visual presentation of objects and activities; it is therefore essential for the development of visual imagery and individual perception (Gay and Lentini, 1995). Towhidi (2010) defined it as follows: "teleconferencing is an integration of computer with telecommunication systems in which private companies, corporations or organisations take the advantages of meeting together through electronic equipment."

Teleconferencing is used in two forms: video conferencing and computer conferencing. In video conferencing, meetings, discussions and distant education classes are held across a country or around the world by using a microphone, television cameras and television equipment. Teleconferencing can be conducted via satellite, cable or through the Internet.

In the open and distance learning (ODL) system, there is hardly any possibility of interaction between the teacher and learner. Given the requirement for distance education to be technologically mediated in order to span the geographic and often temporal distance among learners, teachers and institutions, it is common to think of the development or generation of distance education in terms of the technology used to span these distances (Anderson and Dron, 2011).

At the Indira Gandhi National Open University (IGNOU), teleconferencing is used frequently to minimise this gap and to provide opportunity to the learner to interact with the experts at the headquarters. It enhances collaboration among online learners in an open learning context and encourages collaborative group work (Tomadaki, Quick and Scott, 2008). It consists of live, synchronous audio and video communication through a computer or digital phone network among sites in different physical locations. It provides increased learning opportunities,

enhances student motivation and a two-way instructor-student communication (Dal Bello, Knowlton and Chaffin, 2007).

IGNOU is using Gyandarshan II, the dedicated national educational channel, for interacting with learners in its various programmes for teleconferencing. In practice, however, video teleconferencing is not picture perfect. Like any other communication technology, teleconferencing has its own share of limitations, which have bearing on its usage and effectiveness. For instance, teleconferencing imposes a constraint of time and place on participants; they have to assemble at a particular time at some chosen location.

There are no universal solutions for such problems; organisations have to resolve them in ways that suit their own context. Watching the teacher on screen during a teleconference helps the learner develop a rapport with the former. This ultimately contributes to the richness of the learning environment (Murrell et al., 1997). In a recent research review on teleconferencing, Chaudhary and Panda (2005) noted that very few studies have been done regarding the implementation stage of teleconferencing. On the basis of research done at the experimental stage and whatever little work has been done in the recent years, they have highlighted the following pattern of findings recurring across different studies:

1. Significant gains in knowledge and comprehension of learners and a favourable response of participants and resource persons towards the use of teleconferencing in cases of both urban and rural settings.
2. Lack of production and presentation values in teleconferencing sessions, inadequate interaction time, need to improve the quality of interaction.
3. Mismanagement at the "learning ends" such as uncomfortable viewing conditions, poor communication links with the "teaching end" and other small technical issues affecting the smooth flow of sessions.

Background of the Study

Since the inception of teleconferencing in India, numerous studies have been conducted to examine aspects related to the process and its utility in teaching in the open and distance learning system. A number of studies has

been carried out to assess the usefulness and impact of teleconferencing for training primary and higher education teachers. Phutela (1998), Parkash and Lal (1998), the Taleem Research Foundation (1999) and the Distance Education Programme (DEP) (2002, 2003) evaluated the effectiveness of teacher training through teleconferencing for primary school teachers.

The studies revealed that the majority of the teachers were positively disposed towards teleconferences as a mode of training. Dash (1997) conducted a study to assess the reactions of primary school teachers trained by the teleconferencing mode. His findings corroborated with others in that the teachers found the experience satisfying. Sahoo (1994) and Mishra (1999) conducted studies on different aspects of the Extended Contact Programme (ECP), a compulsory component of the Post Graduate Diploma of IGNOU for higher education teachers. While Sahoo's (1994) study found that the mode was effective when used independently as well as in combination with other activities during the ECP (brainstorming, discussions, projects), Mishra's (1999) findings revealed a high degree of quality exchange between the learners and the resource persons, to be improved further by orienting the resource persons and the learners in the use of this technology.

Rao and Khan (1998) had reviewed all the teleconferencing sessions conducted at IGNOU both by governmental and non-governmental agencies and concluded that professional programmes were more suited to teleconference usage as the learners in these courses were more motivated and mature. They suggested careful planning and monitoring of the sessions to increase learner utilisation of these sessions (Chaudhary and Panda, 2003).

The role of the local cable network for teleconferences was examined in a study by Chaudhary and Behari (1994) and it was reported that strong learner participation motivated cable operators to offer their networks for educational purposes which is normally not the case. Raghubanshi and Mishra (1996) examined the causes of low learner attendance in teleconferencing sessions and suggested tapping different sources to increase individual learner access to the telecasts of the sessions.

Chaudhary and Panda (2005) also forwarded their opinion that teleconferencing is economically and technically feasible and can serve as an important educational tool, provided the problems in the system are worked out. Some studies related to the presentation and design of teleconferencing sessions reflect that, in general, teleconferencing suffers from the formal teaching approach. The participants find the presentations dull and boring. The use of graphics and other visual support is found to be minimal, drab and unimaginative. The participants also feel that resource persons are not fully prepared and student queries are not well answered (Sinha, Kishore and Hashmi, 1994; Chaudhary and Padhy, 1998; Prakash and Lal, 1998; Rao and Khan, 1998; Trivedi, 2004).

During some teleconferencing sessions, it had been observed that interaction is almost zero. In most sessions, only experts presented their lectures for the allotted 45 minutes and they had not received any phone calls from the learners. This was experienced by many of the experts and resource persons. This reflects that there is something wrong with the activity, either process related or otherwise. This tendency to use a "talking head" approach in a teleconferencing is a misuse of technology.

Khan (2000) argued that presentation problems are actually mere symptoms of a much deeper contextual problem: a teacher tries to emulate the classroom lecture method even in a teleconferencing session, without realising that the medium of instructional delivery is a technological interface, that is, a TV screen which would have its own implications. For instance, stress arises when one sees an unimaginative "talking head" on the screen for several minutes without involvement from the listener/viewer. Pedagogic strategy should be oriented around exploiting the visual attributes of television and minimising the negative effects of technology. From the reactions and opinions of tele-teachers, it appears that "teachers find preparation for a teleconference difficult and cumbersome…" (Chaudhary and Padhy, 2005).

Concerns and attitudes of teachers using teleconferencing, studied in other countries, tend to suggest that teachers' main concerns were their lack of experience with the technology and self-consciousness about their performance and presentation (Tykwinski and Poulin, 1991). There is strong emphasis on the need of training resource persons/presenters for the effective handling of learner queries, designing of teleconferencing

sessions and in presentation skills (Reddi, 1996; Prakash and Lal, 1998; Rao and Khan, 1998).

Bhushan (2004) reported in her analysis that the teachers further hoped that technology will offer more interaction and ensure student participation with proper planning of the sessions, more time for interaction and use of other aids to enhance presentations, making them more interesting and useful for the learners. As per her findings, few of the teachers have the perception that the technology is not appropriate for the learners and teachers and its use does not integrate with other media. The reasons were limited feedback available from the learners, lack of appropriate content suited to the medium, lack of planning, last minute decisions "being forced" to conduct sessions, etc.

The above review indicates that the focus of most of the studies has been to assess teleconferencing as a medium for education and training alongside dimensions such as interactivity, factors influencing effectiveness in the teaching-learning, role of teachers/resource persons, etc.; others have highlighted innovations in teleconference use and suggested ways to improve learner access and participation in the sessions.

In the light of the above observations and self-experience of the author, it has been decided to analyse the problem and propose the effective measures, on the basis of analysis of viewpoints of various stakeholders and to suggest some practical solutions.

Objectives

The major objectives of the study were:

1. To analyse the causes hindering the effectiveness of video teleconferencing.
2. To suggest some remedial measures for improving the effectiveness of video teleconferencing.

Methodology

In order to analyse the problem, the author planned an unstructured interview-cum-interaction with various partners of the process as well as

to reflect on his own experience as a resource person in various sessions of video teleconferencing. The study is not based on any quantitative data analysis tool as it is a perceptual analysis based on informal interviews with various stakeholders.

Self-experience

The author obtained the opportunity of being the resource person in two teleconferencing sessions. Both were video teleconferencing sessions based on some course-related topics. The author was informed that during the delivery of the lecture, he might receive some phone calls as it was live on Gyandarshan-II. The students, who were watching it live, might call during the lecture through toll-free phone numbers and he had to respond them. This is technically known as a one-way video – two-way audio teleconferencing. It was also expected that during the delivery of his lecture, the author had to encourage the viewers to make some enquiries. These might be content-related or course-related journal queries.

During his interaction with the camera in the two sessions, over 90 minutes, it was totally a one-way interaction. Not a single phone call was received. After completing his sessions, the author interacted with other colleagues about his experience and learnt that their experiences were almost similar. This experience basically encouraged him to think about the issue and to analyse the causes so that appropriate measures could be suggested to improve the effectiveness of video teleconferencing.

In order to analyse the problem in more detail and practicality, the author decided to interact with all the personnel who were associated with the process directly or indirectly, producers at the electronic media production centre, and the involved study centre, officials at regional centres, various resource persons at the headquarters, students of various courses at study centres, etc.

Interaction with the Production Team

Firstly, the author interacted with the producers, who worked on the technical aspects of teleconferencing. During informal discussions with them, the author asked them a few questions related to their perception regarding the effectiveness of teleconferencing sessions. They pointed out various opinions which are listed as follows:

1. Poor presentations: The producers observed that the experts, who were conducting the teleconferencing sessions, did not prepare their presentations properly. Few of them were not very good in communication skills. Their body language did not match camera expectations. These might have been due to lack of experience of interacting with the camera by many of the resource persons. They were not aware that body language plays an important role in presentations before the camera.
2. Lack of communication about the programmes: It was also brought to the author's notice during the interaction with the producers that the students had not been well informed about the topics, the experts and the schedules of programmes. Although such information was provided on websites via the e-Gyankosh portal, first-hand information about the programmes related to their courses, the experts available, the teleconferencing utility as well as the importance of students' interaction, was not clear to them.
3. The producers also reported that most presentations were highly theoretical and not generating any interest among students. Very few subject experts prepared specific presentations with animations, videos or demonstrations of activities. In most of the presentations, experts were delivering a lecture, which was not very effective for interactions.
4. Another reason highlighted by technicians/producers was the medium of instruction during the programmes. They said that most of the students were undergraduates and not very proficient in English; however, most of the lectures delivered were in the English language. The language deployed alongside poor physical presentations, did not evoke any curiosity or understanding among the students. So they did not take an interest in the teleconferencing sessions.
5. A further point that emerged from the discussion was that a few of the presented topics were very "bookish" and lacked new information. In these lectures, the contents were repeated by the subject experts who did not try to provide anything new, relevant, informative or updated. This was also shortlisted as one of the reasons for an almost zero interaction in teleconferencing sessions.

Interaction with Centre Programme Coordinators

In the second phase of the analysis, the author s decided to interact with the programme coordinators of the study centres or the faculty of the school, i.e., the delivery points. He had an informal conversation with them in person, by phone and through Facebook. It was a very interesting part of the study. This helped greatly in analysing the causes of the ineffectiveness of video teleconferencing. During the discussions, the author became aware of the following:

1. The coordinators of the study centres were not well informed about the teleconferencing sessions. Only a few of them in Delhi and two more in other cities confirmed that they were aware of such teleconferencing activities and had displayed their schedules after downloading them from the university website. The rest did not make any effort to do so.
2. They were also of the opinion that better communication from the programme coordinators at the headquarters before the beginning of any programme could help them to encourage many students.
3. Many of them were also unaware about the fact that along with Gyandarshan through DTH, students could view the programmes directly on the Internet via the e-Gyankosh page or the Sakshat portal. This reflected the lack of orientation or training for the programme coordinators at the study centres.

Interaction with Students

After collecting this information and following discussions, the next target was the students of various courses. The author decided to make some informal visits to a few study centres during the weekends. He visited seven study centres on Sundays within a span of two months and interacted with 73 students following various courses and enquired about the dissemination of information and their involvement in teleconferencing sessions. The following observations were the outcomes of the discussions with them:

1. Non-availability of information: Most of the students were not aware of the schedules of the teleconferencing sessions because they had no information from their study centres. They had only read about their existence in their programme guide.

2. No proper access to Gyandarshan-II: Through cable or by direct home (DTH) services, the students had been informed that only Gyandarshan was available. But since it was not convenient for them to go to the regional centres regularly and most of the study centres had no such facility, they had decided not to use it.
3. Only a few of the students had been told that they could view some broadcasts but as these were not relevant to their courses, they did not view them.

Discussion on Findings

As the study was not systematic and the author had not used any standardised tool or procedure to collect information, the validity of the findings may arise. However, as stated earlier, the objective of the study has been to understand the causes of ineffective video-teleconferencing and as such, it were quite a worthy practice.

After going through various observations, the author has summarised the following reasons leading to ineffective video-teleconferencing sessions at IGNOU:

1. Poor selection of contents in presentations.
2. Lack of multimedia applications/activities in presentations.
3. Lack of proper training of experts/resource persons for video teleconferencing.
4. Language of delivery inappropriate or not understood.
5. Lack of proper information to study centres/students.
6. Lack of orientation by coordinators of study centres/programmes at study centres.
7. Non-availability of Gyandarshan-II on a few DTH services.

These reasons are only some significant ones. This outcome of the analysis was also supported by some previous research. In order to increase the effectiveness of the sessions, it was found that the language, presentation style and pace, use of clear and visible graphs and charts, impacted on the quality of teaching-learning (Parkash and Lal, 1998). Mishra's (1999) findings revealed that a high degree of quality exchange between the learners and the resource persons could be improved further

by orienting the resource persons and the learners in the use of this technology.

However, Bhushan (2004) reported that in her study, the majority of the teachers felt that teleconferencing, as a medium, can easily be incorporated into the classroom situation and it had the potential to be adapted for use by different levels of students. According to the respondents, the technology does have a wider use than originally intended, in that it can be used to deliver learning for a wide range of learners and in a wide variety of topics.

Instead of long lectures, presentations should use interactive formats. The incorporation of pictorial materials, video clips, relevant graphics, illustrations and models not only reinforces contents but makes the presentations lively and interesting.

Remedial Measures

From the discussions, the following points have emerged as some remedial measures:

1. The advanced fixture of the teleconferencing sessions as required by a course.
2. Use of the Short Message Service (SMS) alert service for students about the teleconferencing schedules of their courses.
3. Bilingual presentations.
4. Training in the development of presentations for webcasts.
5. Selection of relevant, new and informative contents.
6. Promoting Gyandarshan-II through local media and/or popularising its availability via the Internet.

The advanced fixtures of teleconferencing sessions as required by a course

The very first solution of enhancing the effectiveness of teleconferencing is that within the annual programme guide of the courses, there should be some fixed schedule of teleconferencing sessions. The practice will be very effective because it will provide the information well in advance to the students. There are some examples of fixed schedules under practice at IGNOU and they promote a greater quality of interaction and usefulness.

One of the best examples is the Extended Contact Programme (ECP) of the Post Graduate Diploma in Higher Education (PGDHE). All the students of PGDHE are well aware about the time schedules of ECP and teleconferencing sessions. The programme coordinator of other courses may also seek out such possibilities with the coordination of EMPC (Electronic Media Production Division). If these practices take shape, there is no doubt about the optimum utilisation of teleconferencing sessions as a bridging tool in ODL.

Use of the SMS alert service for students about the teleconferencing schedules of their courses

Many institutions are using mobile technology as a tool to reach the masses. IGNOU is using the SMS facility to inform its students about their enrolment, important events, dates of examinations, etc. This facility is still underutilised. If a fixture can be developed for the teleconferencing sessions, the SMS alert service can be used to inform the students to enrol in any particular programme.

The programme coordinator has to provide the facilitator the SMS facility that has information about the students together with their contact numbers and schedule of the SMS alert. This facility is also helpful in disseminating information to the students about any immediate fixture. This is not a very painstaking effort. Some Regional Directors (RDs) are using it quite effectively.

Bilingual presentations

The next suggestion is that the telecast of teleconferencing sessions should be in both languages, i.e., Hindi and English. It has been observed during discussions with various stakeholders that most of the time, teleconferencing sessions are in English and the teachers are not able to connect themselves with the audience. As English is not the language of the masses in India, it creates a gap between teachers and students. The experts have to realise that they are in the sessions to facilitate their distance learner and if they are not able to connect with them, their whole expertise will lose its importance. My suggestion is that communication in teleconferencing sessions should be bilingual or in *Hinglish*. This may be more effective when communicating with the learner.

Training in the development of presentations for webcasts
It is clear from the discussion and review of related literature that experts are normally well trained in teleconferencing techniques. There is a strong need, however, to develop short- term training modules and workshops for the subject experts. These training programmes should focus on developing skills like the editing of contents for presentations, using camera- friendly power point presentations, blending multimedia, appropriate dress sense and body language in front of the camera and the selection of suitable terminology for each level of students.

It has been observed that frequently, the presentations during teleconferencing are not able to generate interest among the students; hence it is necessary that presenters should be trained properly in presenting their contents in a very lucid and interesting manner. Mogikoyo (2010) insisted that there are factors that should be considered for this technology to succeed.

The quality of education should not be compromised, the delivery of service should be efficient and lecturers should not lose control of the students they teach. Donald (2008) also found that students expressed feelings of least engagement where there were tutor monologues, particularly those when the tutors talked over power point slides already issued and where interaction was minimal or lacking. Technical hitches and the lack of expertise of tutors new to video conferencing were also detrimental to engagement. The role of body language was also very important. Presenters should be orientated towards the role of body language, eye-hand and eye-camera coordination. If these improvements are put in place, video conferencing will be very effective.

Selection of relevant, new and informative contents
This is a very serious issue for all subject experts. The quality and nature of contents to be presented in teleconferencing sessions will play a very important role in attracting the attention of the students in these sessions. It has been reported that in some of the teleconferencing sessions, the contents presented were very “bookish”, traditional and already available in many books and printed study materials. They were not new, informative or explanatory. It has been advised that in teleconferencing sessions, the contents should be relevant, updated, interesting and informative with applicability.

Donald (2008) reported that pre-conference tasks were found to be helpful in focusing attention on the subject matter of a teleconference. While individual tasks meant they could be more easily completed, this led to awkwardness during the actual teleconference as it was felt to be frustratingly wasteful of air time for the tutor to be checking over each individual's responses.

The suggestive measures discussed here are to improve the effectiveness of the teleconferencing sessions.

Summary

The study indicated that video teleconferencing is a tool which is still under-utilised in the open and distance learning system. The unstructured interviews and discussions with various stakeholders showed that there were some key issues, which can be addressed to utilise the facility optimally. The study also highlighted various suggestive measures like the orientation of teleconferencing subject experts, bilingual presentations and discussions, use of the SMS facility for the proper and timely dissemination of information to distance learners, the advanced scheduling of teleconferencing sessions in programmes, the selection of relevant contents for presentations and promotion of discussions during teleconferencing sessions, etc. Although the research is quite unstructured in nature, it has highlighted many minute of important issues contributed to ineffectiveness of teleconferencing sessions.

The research has also opened new possibilities for researchers in the field. Furthermore, research can also be conducted on the learners' attitude towards learning via teleconferencing, examining the role of teleconferencing in online learning, utilising teleconferencing in skill-based programmes and the blending the technology with mobile learning, i.e., the direct linkage and assess of teleconferencing sessions through mobile technology for better connectivity and access.

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