CHAPTER 4
Distance Learning through Satellite
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4.1 - Introduction
4.2 - Distance Learning and Internet
4.3 - Satellites for Education
4.4 - Distance Learning through Satellite Broadcast
4.5 - Categories of Distance Learning Technologies
4.6 - Video Technology
   4.6.1 - Videotape and DVD
   4.6.2 - Satellite Video Conferencing
   4.6.3 - Microwave Television Conferencing
   4.6.4 - Desktop Video Conferencing
   4.6.5 - Internet Video Conferencing
4.1 - Introduction

The present research work is study on the “An Empirical Study of Students Perceptions about Distance Learning through Satellite Broadcast”. This topic is opened with the Distance Learning, Internet, Satellites for Education and Distance Education, Categories of Distance Learning Technologies. With the regards Role of Technology in Distance Learning, Video Technology and Benefits of Distance Learning explore for proper discussion.

4.2 - Distance Learning and Internet

The Internet has the ability to level the multiple needs of learning of individuals. If there are S.S.C. students look for supports with some maths problem it can be done through Distance learning. Further a fulltime working employee require a university degree for promotion and other knowledge purpose can be made possible through distance learning. The current growth rate in enrollment of demand education can not match with the capacity growth rate of existing university. There over crowded classrooms and reduction in quality has resulted. A viable Distance Learning education system represent the excellent cost effective efficient solution to these problems with proper internet facility. Furthermore closed circuit Television lecturers Electronic Learning may also offers a more attractive solution specific to girl Higher Education.

Educations for all could means a three dimension challenge. It is educations for all age, educations for students of in schools or out of schools and educations in different occupations. Therefore these challenge has two-fold that equitable knowledged resource and Quality education. Effective responses to the complicated challenge to educate millions with Quality may be possible with information communication and technology enabled education i.e. distance learning through satellite broadcast. The basic innovated and clever integration of Information Communication Technology is an open and flexible academic structure. Then it would help the nation to address problems like increasing demand, quality person, utility and excellence of Higher Education.
4.3 - Satellites for Education

There are many countries using satellite broadcast for Education. Therefore the concept of Teacher in the Sky came into existence with Satellite education. EduSat an Indian Satellite established by ISRO is completely devote in the area of Satellite Education. In addition this, programs for School, College and Higher education of UGC, AICTE, IGNOU, CEC, NCERT and DST have been set up using the national beam. Similarly in the nation, Britain, Japan and Sri-Lanka have come up with the University of the Air. In addition to support formal Traditional Education, Satellite Education System may facilitated broadcasting knowledge to rural and remote are peoples. All this happen due to the broadcasting systems of the various nations. Canada, China, Indonesia conducted Satellite Instructional Experiment conducted successfully, after that India followed the same experiment and clearly established the tremendous potential of using satellite TV for educational requirement. Indonesia established PALAPA satellite successfully, India established INSAT and AUSSAT established by Australia prompted other countries to develop their own satellite based system to fulfill education requirement.

In the current modern age, Telecommunication Technology such as Satellite, Fiber Optic System, Radio, Television, Laptops, Computer, Radio and other useful devices are useful in delivering instructional education. To increase contact session between instructor and learners that is the main purpose of using these technology. In Planning the instructional activity of distance education the interaction is playing a key role. At this state instructor, faculty and administrator must be trained to use Telecommunication Technology so that they can increase the learners in the Distance Education System. It is now offer at all educational levels primary school students to university students. It included general education as well as skills training and retaining educations courses also available.
4.4 - Distance Learning through Satellite Broadcast

Telecommunication Technology such as Radio, Computer, Television, Laptops and other used to delivering Distance Education instructions. There are basically two types of Telecommunication Technology based on Distance Education, i.e. Synchronous and Asynchronous.

- Synchronous System
- Asynchronous System

4.5 - Categories of Distance Learning Technologies

Distance Education involved in time to time interaction with the faculty who offered course contents. Therefore, the range of Distance Learning Technology available currents reflected into four category as shown in figure 4.1.

![Figure 4.1: Categories of Distance Learning Technologies](image)

Print
- Textbooks
- Study guides
- Workbooks
- Fax

Voice/Audio
- Radio, Telephone
- Voicemail
- Audioconferences
- Audio files/CDs
- Podcasts

Computer
- E-mail, chat
- Web-based resources
- Videocorferences
- CD-ROM
- Smartphones

Video
- Videotape
- Satellite delivery
- Broadcast video
- DVD

Figure 4.1: Categories of Distance Learning Technologies
4.6 - Video Technology

In Distance Education, the ability to see and hear the teacher means Distance Education with the help of Video Technology. It further offer opportunity for demonstration, behavior modeling with instructions of abstract concept Video Technology has three audio video configurations which is shown as per figure 4.2.

![Video Configurations](image)

**Figure 4.2:** Three audio and video configurations

4.6.1 - Video Tape and DVD

It is a popular method of Distance Learning and ready to use format for instruction through Video Tape and DVD material. It is require by all student to have a videotape or DVD player at the home or where they want to learn. It has several advantage for in the delivery of Distance Education.

4.6.2 - Satellite Video Conferencing

Full motion video teleconferencing which is also known as Video Conferencing. It offer the other best thing of providing distance education. Satellite transmission help Satellite Video Conferencing. The following figure 4.3 describes the Satellite Video Conferencing.
4.6.3 - Micro Wave Television Conferencing

Satellite has also popular method for enabled video communication over long distance. It provides a cost controlled method in more restricted areas. There are many system design to transmit video signal in the area that are not more than 20 miles as shown in below figure 4.4.

4.6.4 - Desktop Video Conferencing

It is required a computer along with camera and microphone at the both side. Under this education system information transmitted through audio and video format to a computer at another side. It is basically less expensive than Microwave and Satellite System. But here a couple of limitation such as video speed and images. A second concern relates to fast connection. Desktop Video Conferencing has described in Figure 4.5.
4.6.5 - Internet Video Conferencing

It has conducted over the Internet that way it termed as Internet Video Conferencing. It required basically a video camera, microphone and speakers on both the sides. It is described in following figure 4.6.

Therefore there are many advantages and some disadvantages of video technologies. There useful guidelines available to incorporate video technology for distance learning.

The many benefits of distance learning provide the impact of technology and recognised the growth rate.