A Study on Availability and Utilization of EDUSAT Facility in DIETs of Assam

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Abstract—*District Institute of Education & Training (DIET) were established across the country as a follow up action of National Policy on Education (NPE, 1986) for training of elementary teacher in a systematic way. It was also suggested to use Information and Communication Technology (ICT) tools in to improve the quality of training etc. Various efforts were made to enrich the teaching process with various ICT tools in the DIETs time to time. As a part of it, Satellite Interactive Terminals (SIT) was established in various DIETs in Assam using EDUSAT satellite. These SITs are two-way interactive system by which training can conduct from a distant location with live interaction between the trainer and trainee. There are total 23 DIETs in Assam and these facilities were commissioned in 15 DIETs. This research paper focuses on the availability of various infrastructures under the EDUSAT facility and its utilization in DIETs.*

Keywords: *DIET, SIT, ICT, Infrastructure, EDUSAT.*

INTRODUCTION

Education is the building block of a society. Particularly in developing countries education plays a major role in modernization of society. Each and every stage of education has its own importance to meet the emotional and intellectual needs of the student. And among all stages, elementary is the most significance stage because it is the pillar where the foundation of educational life is built.

Elementary education not only important for the student but it also contribute to the nation growth by preparing future citizen. Literacy rate of a country also depends on elementary education, so the teachers of elementary education have utmost responsibility to prepare the education. So, the teachers of elementary education should be given proper training so that they can motivate the little children for learning.

National Policy on Education (NPE, 1986) suggested establishing a district level institution to provide academic and research support to elementary school teachers and personnel working in the non-formal and adult education. The Program of Action (POA, 1992) prepared to implement the recommendation of the NPE envisaged that selected institution will be developed as Districts Institute of Education and Training (DIET) both for pre-service and in-service course of elementary school teachers and for continued education of the instructor working in non-formal and adult education program. It was planned for setting up DIETs in every district of all the states of India. At present there are 23 DIETs in Assam under the administration of State Council for Educational Research & Training (SCERT).

It was also planned to provide the Information and Communication Technology (ICT) tools such as Computer Assisted Instruction (CAI), Computer Managed Learning (CML), Computer based Learning (CBL), Educational Television (ETV) etc. to all the DIETs to enhance the quality of training. The DIETs would be fortified to use this facility for developing their own programs for their trainings for teachers and instructors. Considering the need of ICT tools in India for education, a satellite named as EDUSAT was launched by ISRO in 20th September, 2004 which was the first exclusive satellite to serve educational sector. It was designed to support the ICT initiatives in education like digital classroom, audio-visual mediums, Multimedia system etc. through this satellite.

In Assam, Satellite Interactive Terminals (SIT) under EDUSAT was set up by ISRO in DIETs of Assam in collaboration with SCERT, Assam during 2010-11. This paper aims to study the facilities under the SIT and its way of utilization for various training programs in DIETs.

Need and Importance of the study

From the literature survey it is found that very few studies have been made on availability and utilization of Edusat facility in DIETs in Assam and the facility are available almost for nearly one decade. Hence, a study is justified on its availability and utilization of the facility.

Through the study, the availability of various infrastructure of Satellite Interactive Terminals (SIT) and their status were known along with its utilization for their various training programs.

Objectives of the study

- To find out the availability of infrastructure of Satellite Interactive Terminals (SIT) at DIETs

- To study the utilization of the facility in DIETs

Research Methodology

Method
Descriptive survey research method was used for the Study

Population of the study
There are total 23 DIETs in Assam and it is found that Satellite Interactive Terminals were commissioned in 15 DIETs. All these 15 DIETs are considered for the study as Sample.

Tools for the Study

- Observation Checklist to study the availability of infrastructure of Satellite Interactive Terminals (SIT) at DIETs

Data collection Procedure
Secondary data were collected from various agencies involved in the implementation of the program like ISRO, SCERT, SIPRD etc. Primary data were collected by visiting the DIETs.

Primary data had been collected by the researchers by physical visiting the SITs located DIET.

Findings

1. Satellite Interactive Terminals (SIT) was commissioned in 15 DIETs out of 23 DIETs of Assam under the jurisdiction of SCERT. These DIETs are located at Bishwanath, Chabua, Dalgaon, Dergaon, Dudhnoi, Golakganj, Howly, Kokrajahar, Morigaon, Nalbari, Nagaon, North Lakhimpur, Titabor, Sonari and Udharbond. One SIT also commissioned at SCERT office, Guwahati.

2. The infrastructures of SIT are homogeneous for all the DIETs and SCERT.

3. The list of infrastructures of a SIT as found are as follows:

Infrastructure	Quantity	Infrastructure	Quantity
Outdoor unit (antenna with electronics)	01 set	42-inch LED TV	01 no.
Satellite modem	01 no.	Wired Microphone	01 no.
Computer with various software	01 set	Web Camera	01 no
UPS (1 KVA) with battery bank	01 set	Connecting cable, power supply boards etc.	As required

4. It is found that all the SIT nodes are operational and properly maintained. Many new items were provided by replacing the old items recently by the implementing agency.

5. The programs were conducted by SCERT, Assam and broadcasted from the teaching end located at State Institute of Panchayatiraj & Rural Development (SIPRD), Kahikuchi, Guwahati. Live and pre-recorded lecture, both options are available. Various audio-visual mode like power point presentation, video clipping, animation, photos, pre-recorded videos can be used in the teaching process. Live interaction between resource person and trainee is done through video conferencing. Chatting, email etc. facilities are also available between teaching end located at SIPRD and DIETs.

6. It is found that program schedule with details is circulated in advance through the SIT online.

7. Every live program is ended with an interaction through video conferencing between the trainer and the trainee. At one time, only one DIET is connected to the teaching end. Request to be made online on real time.

8. A good number of programs on 'Teacher Education' were conducted by SCERT, Assam for the DIETs through the SITs.

9. The SIT is operated by a designated staff of the DIET.

Result & Discussion
The objectives of the study were to find out the availability of infrastructure of Satellite Interactive Terminals (SIT) at DIET. The findings of the study showed that infrastructure of SIT are homogeneous for all the DIETs and are found operational and maintained properly. The equipment are found latest. The SIT is found well integrated with variety of components.

The utilization of the SIT at DIET is mainly depending upon on SCERT, Assam as the DIET are at receiving end and programs used to be conducted by SCERT. The SITs are network dependent and can't be used in isolation for its actual utilization. May be some components like Computer, LED TV, UPS can be used for some other educational purpose if required.

It is found that trainee assembled at all the 15 DIETs located at different geographical locations can be trained from a central location and they can do the live interaction with the resource person which is a very good facility indeed. It can significantly save in expenditure due to logistics and setting of teaching facility as well as enhances the availability of good resource person for large numbers of trainee. The SIT end behaves like a virtual class room.

Conclusion
Satellite Interactive Terminal using satellite communications is one of the important tools under Information and Communication Technologies (ICT) for educational sector. It can be utilized for all levels of education. For dissemination of information globally, satellite communication is playing a very important role. It is the only way to access remote and geographically dispersed population where no other way of telecommunication is available. So, SIT can address the gaps between rural and urban populations. It can be a great support in creating virtual classroom. Considering its usefulness, the frequency of program may be increased to have more benefits

and SIT may be extended to remaining DIET also for large participation. Not only teacher education but also other sectors of education can be benefitted through this SITs. Even general awareness programs on societal development also can propagate through this facility.

Acknowledgement:

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