

# A Comparative Study of the Achievement of Girls and Boys of Primary Schools having EDUSAT

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## ABSTRACT

The present study reveals that the Satellites can provide education to villages which are not well connected, or where there is no school and no teacher, where the school times are not convenient, or where the family moves from one place of employment to another. Satellite based system can provide easy and flexible connectivity, audio-visual education materials to improve quality and they can make learning interesting. So the students can get high achievement through by using the Edusat in schools. So the study shows that there is positive impact of using EDUSAT on students.

**Keywords:** EDUSAT, Achievement, Primary school, students

## I. INTRODUCTION

In urban areas, children from urban slums make a living or contribute to the family earnings by way of rag-picking, shoe-shining, domestic help, cleaning cars, working at road-side eateries and tea-shops. Some children support their poor parents by participating in economic activities like farming, beedi rolling (Beedi is a low priced local tobacco product, made using manual labour), working on looms, and making products like carpets glass bangles, firecrackers, match-boxes and match-sticks. Children of migrant families have seasonal employment, e.g. at saltponds, in farms, at construction sites, and brick-kilns. Children in remote or inaccessible villages have no convenient access to a school. Schooling may be restricted due to social or religious practices, especially for adolescent girls. Non-availability of teacher and textbooks, a lack of drinking water and sanitation facilities in the school may be the reason. The school curriculum is uninteresting and irrelevant; children are taught via memorizing rather than discovering knowledge and learning, and frequent failure to get promoted to the next class.

- ✓ The school schedule and duration are not compatible with demands made by the child's family and economic activities, which means the opportunity cost of education is high. The school education does not enhance the employability.

Indian planners and administrators have been struggling to provide workable solutions. Compromises are made in the required qualification for teachers by providing teachers with less than the statutory education qualifications, but accepted after brief training (called "Para-teachers") to fill in the capacity gap. At present, there are more than 500 thousand Para-teachers in a number of states. Non-formal and alternative schooling programmes are also being provided to special categories of children, e.g. those of migrant labourers.

## II. Review of Literature

Nimarathi (2008) reported that by the use of multimedia, the students get a live vision of life's aspects and scientific factors, e.g. a diagram can be explained in detail with three-dimensional effect which helps the students in understanding the lesson clearly. Numerous studies have also shown that student's academic achievement improved when taught through multimedia approach (Kulik, 1994; Simkins, 2002; Patil 2006; Shikhare, 2007 and Madan, 2009). Various explanations have been put forward with regard to the cognitive benefits provided by the use of various communications technologies in preparing multimedia learning (MML) package of enhancing student's conceptual understanding. Selinger (2004) claimed that multimedia

content helps to illustrate and explain difficult concept in ways that were previously inaccessible through traditional teaching resources and methodologies. Similarly, Ferror (2002) reported that the use of multimedia approach using interactive CD-ROMS, Power point presentations and graphing software has been successful in generating conceptual understanding in student's studies conducted by researcher. Munirah, et al.(2003), Chandra (2002) has also reported the use of different multimedia in bringing about conceptual change. "Educational institutions, left to them may not be successful in achieving the educational objectives of the developing societies without the support of the new media". (Media and Symbols – Nelson Henry). Hence, mass media, as channels of education, gain relevance from their capacity to disseminate educational information to a great number of people and make the present educational programmes more effective and meaningful (Damayanthi, S. M.). During the last six decades Indian school education system, especially primary or elementary has seen phenomenal growth in terms of access and enrolment. However, inspite of provision of teacher and curricular reforms, the system could not witness high retention rates. Thus, the problem of dropouts continues to plague the primary level of school education. There is a need to examine the reasons time and again. This study attempts to highlight the incidence of dropout and the reasons for the same. It also suggests measures based on the specific reasons and the expressed opinions of the respondent dropouts.

### III. Concept of EDUSAT

EDUSAT is the first exclusive satellite for serving the educational sector. It is specially configured to meet the growing demand for an interactive satellite-based distance education system for the country through audio-visual medium, employing Direct-to-Home (DTH) quality broadcast. The satellite has multiple regional beams covering different parts of India –5 Ku band transponders with spot beams covering different regions, a Ku-band and transponder with its footprint covering the Indian mainland region and 6C-band transponders with their footprints covering the entire country.

On the 21st September 2004, ISRO launched the 1950 kg EDUSAT satellite dedicated to education EDUSAT,

using India's Geo-synchronous Satellite Launch Vehicle (GSLV-F01). The satellite has multiple regional beams, with their footprints covering the entire country. EDUSAT provides connectivity to schools, colleges and higher education institutes, and also to support non-formal education, including developmental communication. EDUSAT is a collaborative effort of the Central Ministry of Human Resource Development (MHRD) and ISRO. The implementation at the field level is carried out by: Providing education access to the children in the age group 6–14 years is a constitutional obligation and challenge for the union as well state governments, as the development of elementary education is a key factor for a nation's development. Due to the non-availability of required number of trained and expert teachers' knowledge-divide exists between students population of urban and rural/remote areas. To bridge this gap Distance Learning or Tele-education is the best option. A dedicated satellite for the purpose EDUSAT was launched. In the glare of the media flash bulbs about years ago, the Indian Space Research Organisation (ISRO) launched EDUSAT, the world's first satellite dedicated exclusively to education. Conceptualised by K. Kasturirangan, then the ISRO chairman, EDUSAT was launched under the chairmanship of G. Madhavan Nair. Expectations were naturally pitched high as the satellite made its way skyward on the evening of September 20, 2004. Possibilities for education suddenly seemed infinite. Space technology could now be harnessed to "reach the unreached" and to "bridge the divide" between rural and urban schools and colleges, ISRO predicted.

Virtual classrooms could solve the problem of the low teacher-student ratio. EDUSAT, equipped with 12 transponders, each with a massive bandwidth of approximately 36 megahertz, beams lectures to 10,000 classrooms in technical universities and primary schools across the country. These include the Visvesvaraya Technological University (VTU) in Karnataka, the Indira Gandhi National Open University in New Delhi, Anna University in Chennai, the Technical Education Board in Rajasthan, the West Bengal University of Technology in Kolkata, and Manipur University in Imphal. In Karnataka, for example, the lectures are prepared by VTU and the Department of School Education Research and Training (DSERT) for technical colleges and primary schools respectively. The lectures

are delivered by specialists in the fields and broadcast live from a studio with an uplink facility at DSERT. The country's first satellite dedicated exclusively to education, EDUSAT has started impacting the way in which distance education is carried out for teacher training and for providing support to remote classrooms. The Department of Space has activated one National Hub to support national level networks. The initial focus of EDUSAT use has been on teacher training at the BRCs. The SSA supports EDUSAT initiatives in seven states:

Haryana, Madhya Pradesh, Chattisgarh, Bihar and Uttar Pradesh, and Tamil Nadu and Karnataka. In the first group of four states, the Rajiv Gandhi Project for EDUSAT supported Elementary Education (RGPESEE) is in its pilot phase. One district in each state has been taken up for the creation of infrastructure in schools and academic support structures to receive satellite signals and for the development of educational content.

#### **IV. Importance of EDUSAT**

It is important to recognize that instructional science and technology is well researched and well developed science and do not belong to the domain of common sense, as it never was. For making effective use of EDUSAT, scientific principles and practices of interactive learning have to be adopted. Then, there is the problem of understanding and responsiveness to the science and techniques of interactive instruction. There is non-responsiveness to the science of interactive learning among the uninformed planners and managers of the education system in general, educational technology in particular. There is a common belief and insistence that a teacher in the studio should present for half the time followed by interaction. There is no pedagogical sanction for such an approach. For, it means asking human minds not to be instantly inquisitive and curious; it must allow subsequent contents to overcrowd and make learning victim of retroactive inhibition. To quote an instance, we decided to host a two-way videoconferencing between experts at one end and a group of eminent pedagogical scientists, namely the education professors from different Indian universities at the other end. Both were connected through two-way video interactive facilities. The experts at the teaching end started making the presentation right on time. When a few of the participating professors wanted to ask

questions within the first five minutes and seek certain clarification from the experts on the other end, they realized to their dismay that they cannot speak with the experts on the teaching end - the teaching end had switched off their reception facility. Finally, one had to call on the telephone line from outside the studio to the teaching end requesting them to open up their reception facility.

#### **V. Objective of the Study**

To compare the achievement of girls and boys of primary schools having EDUSAT

#### **VI. Hypothesis of Study**

$H_01$ : There is no significant difference in the curiosity level of girls and boys of primary schools having EDUSAT.

#### **VII. Research Methodology**

**The Population:** Population refers to any collection of specified group of human beings or of non-human entities such as objects, educational institutions, time units, geographical area and prices of wheat or salaries drawn by the individuals. Some statisticians call it universe. Population in the present study comprises of the primary schools of the state Haryana.

**The Sample:** Sample is a small unit of a large whole or smaller representation of a whole population or universe. We can also say that a sample is a true representative of its population. The investigator went through the sample of 600 primary students studying in various primary schools of Haryana. In order to keep to study manageable enough, a purposive sampling procedure adopted in the study. The school in each zone of area has been taken from the list available in the DEO Office, to be used for the selection of schools for the sample. 300 students (150 girls and 150 boys) from the primary schools having EDUSAT and 300 students (150 girls and 150 boys) from the primary schools not having EDUSAT, constituted the sample.

In the study effect has been seen by comparing the students of primary schools having and not having EDUSAT. Students of Class IV were the part of study.

**Tools Used:-** After selecting the sample, the next step was to choose the suitable tools for the collection of data. The investigator selected the following tools for collecting authentic information from the respondents. Mean S.D. t-test.

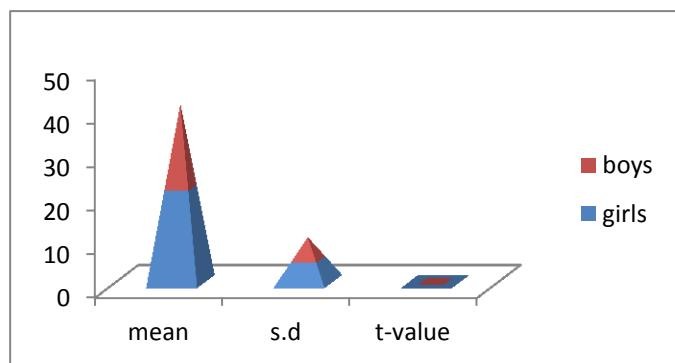
## VIII. Analysis and Interpretation

| Group | N  | Mean  | S.D. | 't' value | Remarks     |
|-------|----|-------|------|-----------|-------------|
| Girls | 50 | 21.54 | 5.02 | 0.019*    | Significant |
| Boys  | 50 | 19.18 | 5.13 |           |             |

**Table 1:** Achievement scores of Girls and Boys of primary schools having EDUSAT

**Source:** Primary Data

\*Significant at 5% level of significance



**Figure 1.** Achievement scores of Girls and Boys of primary schools having EDUSAT

**Source:** Primary Data

### Interpretation:

It is observed that the mean of achievement of primary school girls having EDUSAT is 21.54 and SD is 5.02. The Mean the achievement of primary school boys having EDUSAT is 19.18 and SD is 5.14. The achievement of primary school girls having EDUSAT are more than the achievement of primary school boys having EDUSAT. The computed t-value 0.019 is less than the tabulated t-value of 1.96 at 5% level of significance. Hence the difference between mean of achievement of primary school girls having EDUSAT and boys having EDUSAT is significant. The null hypotheses "There is no significant difference in the

achievement of girls and boys of primary schools having EDUSAT" is rejected.

## IX. Conclusion

The use of EDUSAT leads to more positive attitude towards educational technology. Thus, when taught through EDUSAT or any educational Programme the students feel more involved in studies, which help significantly in raising their achievement. With the help of educational programmes, the teacher is freed of the administration burden. They thus would be able to devote more time to the task of helping students for which they are trained. Moreover, the students will also enjoy their course of study. Training/orientation of teachers at cluster level particularly on academic aspects like classroom transaction, school effectiveness programmes, potentials of technology, pedagogy of the implementation of technology and changing roles of teachers to facilitate learning of children during transmission through EDUSAT beneficial for children and improving professional competencies of teachers. This helps in utilizing their services effectively in classroom for optimum benefit of EDUSAT transmission particularly for improving learning of children.

## X. REFERENCES

- [1]. Loewenstein, G.(1994). The Psychology of curiosity: A review and reinterpretation, Psychological Bulletin, 116(1):75-98.
- [2]. Madan, Meenu (2009). Effective of Multimedia Teaching Programmes for teaching of English, Ph.D. Education, M.D. University, Rohtak.
- [3]. Maw, Wallace H. and Maw, Ethel W. (1977). Nature and Assessment of Human Curiosity. Chapter XII in Advances in Psychological Assessment.Paul McReynolds (Ed.) Jossey-Bass Ltd., London, pp.535-36.
- [4]. Mayer, R.E. and Gallini, J.K. (2007). Narration Versus on-Screen Text in Multimedia Learning, Berlin.
- [5]. McWhirter and Michael Edwin (1991). The Effect of Level One Video Disc Technology on Sixth Grade Student Achievement in Science, Dissertation Abstracts International, No.5, p.1719-A.

- [6]. Miller, B. (1991). A review of the qualitative research on multi-grade instruction, *Research in Rural Education*, 7 (2): 3-13.
- [7]. Ogawa, T. (1977), Learning from educational television. Abstracted in Survey of Educational Television (Udaya-Bhanu), New Delhi: Ministry of Education and Social Welfare, Government of India.
- [8]. Olson, K. Camp, C., & Fuller, D. (1984). Curiosity and need for cognition. *Psychological Reports*, 54:71-74.