



# A COMPARATIVE STUDY OF USEFULNESS OF ICT IN OPEN AND DISTANCE LEARNING AND CONVENTIONAL MODE OF EDUCATION SYSTEM

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## ABSTRACT

*Open and Distance Education is considered a significant medium for sustainable development in the information age of advanced learning. Assam, which is considered as the case study for this article, is facing the challenges of knowledge and information upgrading. In order to meet the demand of globalization for sustainable development, the government established the IGNOU by an act of Parliament at National level. This article explores the implementation of ICT to the development of distance education. There is a need for the development model of education that provides for quality education and offers the possibility of sustainable development to learners and society as a whole.*

**KEYWORDS:** Distance education, IGNOU, ICT

## 1. INTRODUCTION

Distance education is emerging as a necessary alternative to formal education system throughout the globe in today's world. The main aim of supervision and inspection being improved, in the quality of educational work, one possible strategy to facilitate achievement of the objective is to classify all the institutions into diversified function (Shukla, 1983, p.5). In India and also in Assam, it has become necessary as formal education cannot always cater for the entire student population of the country. Evaluation and review procedure likewise provide a formal and pre-planned opportunity where we disagree and disappointment can be brought to light to alternative responses considerably. (Sharma B.M. 2005, p.16). Now opportunities will be provided to youth, housewives, businessman, service holder, agricultural and industrial workers and professionals to continue the education of their choice, at the pace suited to them, development has taken place much because of educational technology implemented in it. Maxwell (1995), makes the following distinction of distance education, "Open learning is defined as a student-centered approach to education that removes all barriers to access while providing a high degree of learner autonomy. Distance education refers to a mode of delivering a course of study in which the

majority of communication between teachers and students occurs non contiguously, and the two-way communication between teacher and student necessary for the educational process is technologically mediated. Distance education may or may not be based on open-learning ideals." (Maxwell 1995, 43).

IGNOU :the Indira Gandhi National Open University Act, 1985 (IGNOU Act 1985). IGNOU is run by the central government of India, and with over 4 million students, claims to be the largest university in the world.

IGNOU was founded to serve the Indian population by means of distance and open education, providing higher education opportunities particularly to the disadvantaged segments of society. It also aims to encourage, coordinate and set standards for distance and open education in India, and to strengthen the human resources of India through education. Apart from teaching and research, extension and training form the mainstay of its academic activities. It also acts as a national resource centre, and serves to promote and maintain standards of distance education in India.

ICT : Information and communication technology (ICT) is an extended term for information technology



(IT) which stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information.

**2. OBJECTIVES**

The Objective of the Study are -

1. To study the Usefulness of ICT in comparsesson to Conventional \ ODL mode of education system from learners' point of view.

**3. METHODOLOGY**

On the basis of the nature of study the investigator has applied the **Descriptive Survey method** to get more pertinent and precise information regarding the problem,as it involves the description,analysis and interpretation of conditions that exist within the preview of investigation. The statistical technique used in this study will be the descriptive statistics, which is used for quantitative description of data collected through various tools in simple percentages. The percentage given on various categories, will be presented graphically with bar graph. MS excel, SPSS software are used for analysis of data.

**4. DATA ANALYSIS**

In the present study for collection of sample we have selected four Universities on the basis of which are providing the courses of Distance education in Assam. On the basis of judgment sampling three conventional universities which are selected namely – GAUHATI UNIVERSITY, DIBRUGARH UNIVERSITY and ASSAM UNIVERISTY and for Distance courses one university which is selected namely KKHOU, only state open university of Assam. The total number of study centers operating in Assam under KKH Universities is 300 of which 6% i.e. 18 study centers(approx )have been selected on the basis of convenience. From among the three conventional universities 10% is selected and from distance education 6% is selected to make it approx 18 colleges/study centers so that it can bring equal number of colleges/study centre as sample under study.

\*To study the effectiveness of ICT in Conventional as well as ODL  
 Data representing the percentage of the response to study the usefulness of ICT in the study area from the learner's

Behavior and Attitude towards ICT	Conventional					ODL				
	Excellent	Very Good	Good	Average	Unsatisfactory	Excellent	Very Good	Good	Average	Unsatisfactory
Learning through the Internet/website	0	0	16.75	44.5	26.5	8	40	32	18	5.75
Learning through sms/televisions	0	0	0	48.75	48.75	0	0	30	69	12.25
Learning through phone programs	0	0	0	20	20	0	0	17	18	72.25
Learning through full time course	0	0	0	0	0	0	0	0	0	100
Supplementary learning material in video learning	0	0	0	0	0	0	0	0	0	100

\*\*Source: Self made

To study the Usefulness of ICT in Conventional/ODL mode of education system

In this case the following parameters has analyzed by the investigators.

**4.1 Learning through Internet/website**

It has been observed that, no respondents of conventional study reported as excellent, 16.75% as very good, 44.5% as good, 26.5% as average, 8% are unsatisfactory while in ODL system, no one as excellent, 40% as very good, 32% as good, 22.25% as average and 5.75 % as unsatisfactory as reported by respondents and it can be concluded that the ODL education system shows better performance than conventional mode of education.

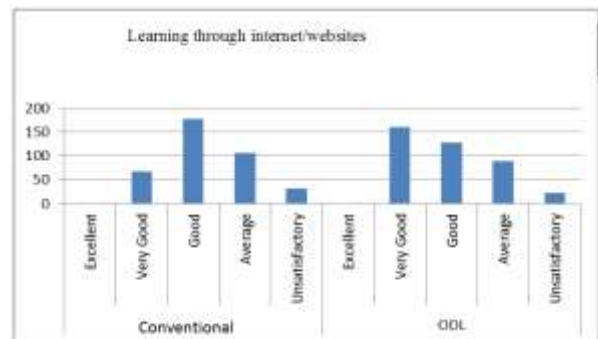


Figure 4.1: Graphical representation of learning through the Internet website related to usefulness of ICT in conventional/ODL system of education.

**4.2 Learning through SMS/radio/television**

From the observation it has been observed that no respondents of conventional study reported as excellent and as very good, 17% as good, 25.5% as average, 48.75% are unsatisfactory in case of Learning through SMS/radio/television while in ODL system on one is reported as excellent and as very



good, 20% as good, 47.5% as average and 32.5 % as unsatisfactory as reported by respondents. It implies that the ODL education system shows better performance than conventional mode of education.

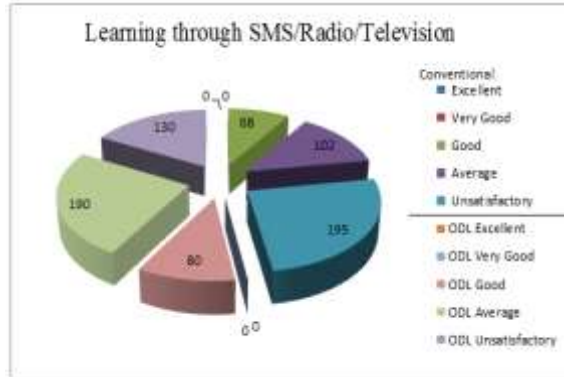


Figure 4.2: Graphical representation of learning through sms/radio/television related to the usefulness of ICT in conventional /ODL system of education.

**4.3 Learning through phone in programmes**

It has been observed that, no respondents of conventional study reported as excellent, as very good, 5.75% as good, 24.25% as average, 22.5% are unsatisfactory in learning through phone in programme while in ODL system no one is reported as excellent, as very good, 8.75% as good, 27.5% as average and 63.75 % as unsatisfactory as reported by respondents. From the observation it can be concluded that the ODL education system shows better performance than conventional mode of education except average percentage.

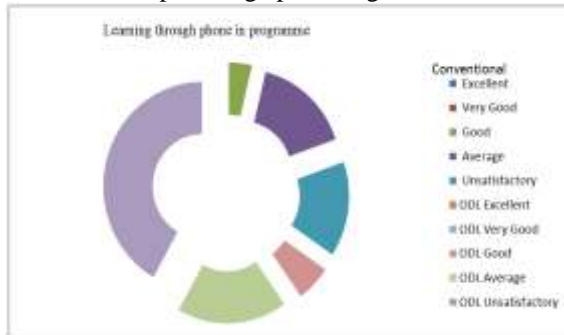


Figure 4.3: Graphical representation of learning through the phone in programme related to the usefulness of ICT in conventional /ODL system of education.

**4.4 Learning through toll free phone service**

It has been observed that, no respondents of conventional study reported as excellent, as very good, as good, 5.25% as average, 10.75% are unsatisfactory in learning through toll free phone

service while in ODL system on one is reported as excellent, as very good, 2.5% as good, 2.75% as average and 94.75 % as unsatisfactory as reported by respondents. Hence it can be concluded that the ODL education system shows better performance than conventional mode of education.

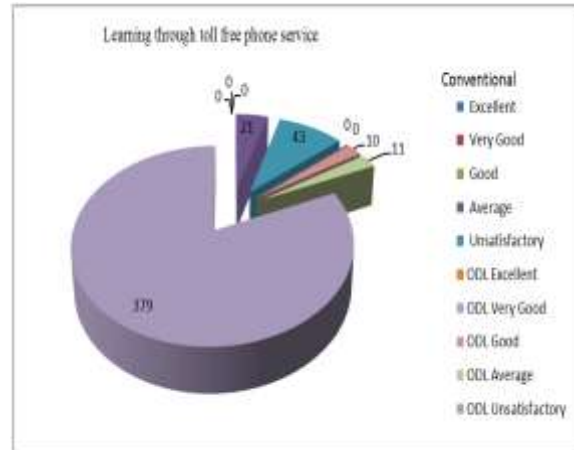


Figure 4.4: Graphical representation of learning through Toll free phone number related to the usefulness of ICT in conventional /ODL system of education.

**4.5 Learning through supplementary learning material in video tapes**

It has been observed that, no respondents of conventional study reported as excellent, very good, and good, only 2.5% reported as average, 16.75% as unsatisfactory in learning through supplementary learning material in video tapes while in ODL system no one reported as excellent, very good, and good, only 20% as average and 80 % as unsatisfactory as reported by respondents and it can be concluded that the ODL education system has better performance than conventional mode of education.

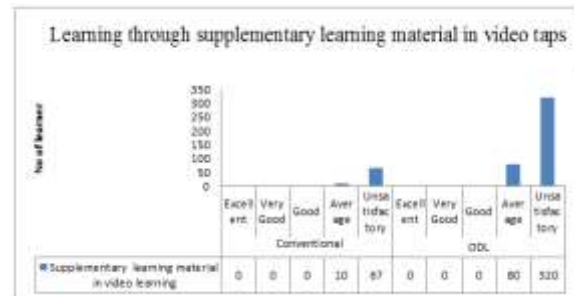


Figure 4.5: Graphical representation of learning through supplementary learning material in video tapes related to the usefulness of ICT in conventional /ODL system of education.



#### 4.6 Test of Hypothesis

H1: In the usefulness of ICT, there is no significant difference between conventional system and ODL system of education.

T-Test

Table 4.6: t-value for the usefulness of ICT from learner's point of view

Course	N	Mean	Sd. deviation	T	df	Sig.
CONVENTIONAL	400	8.67	1.659	4.694	798	.000**
ODL	400	8.25	0.697			

\*\*Significant level is at  $P < 0.01$

The graphical representation of the mean value of T-test for the usefulness of ICT from learner's point of view is as given below

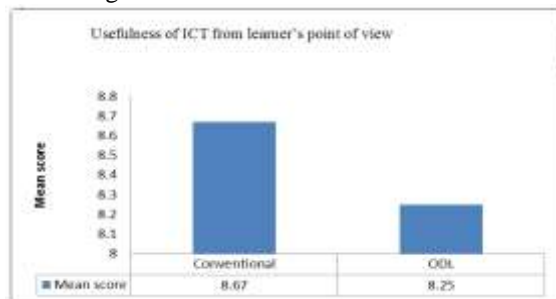


Figure 4.6: Graphical representation of the mean value of T-test for the usefulness of ICT in conventional /ODL system of education.

3. **Observation:** In case of usefulness of ICT the above table reveals that the Conventional and ODL mode of education system has the mean scores 8.67 and 8.25, SD are 1.659 and 0.697 respectively. The t-value is 4.694,  $df=798$  and  $P=0.000$  is highly significant at 0.01 level. Thus it can be concluded that the difference is highly significant and the usefulness of ICT from learner's point of view in case of conventional mode of education is higher than ODL mode of education. Thus, the hypothesis can be rejected.

4. **Conclusion:** From the observation and analysis of data it can be concluded that in comparison of ODL mode of education system, usefulness of ICT is higher in case of conventional mode of education from learner's point of view.

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